



CURRENT DEBATES in SOCIAL, HUMANITIES and ADMINISTRATIVE SCIENCES

Editörler
Prof. Dr. Sinan SÖNMEZ
Dr. Özgür IŞIK



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Chapter 1

Has the Role of the United Nations in the Israeli-Palestinian Conflict Supported the Neorealist Claims about International Institutions?

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1. Introduction

The United Nations (UN) has long been a part of the Israeli-Palestinian conflict starting with the application of the British Mandate of Palestine, and the Partition Plan. Despite the primary or secondary roles of the UN in different periods and a number of significant UN resolutions regarding the different issues of the conflict, a comprehensive settlement of the conflict could not be achieved after 75 years. The role of international institutions in international relations has been a debated topic among scholars. Whereas neorealist scholars claim that institutions have a little independent effect and are limited by the interests of the powerful states, neoliberal institutionalists attribute a greater role to institutions depending on their particular functions such as reducing transaction costs, providing more information, or creating issue linkages. The UN is considered the most inclusive and prominent example of international institutions, so expectations towards the UN have always been higher than other international institutions. Furthermore, UN membership is regarded as one of the main indicators of statehood in international relations; thus, the UN has a critical place in terms of the resolution of the conflict under the framework of the two-state solution. This article will address the role of the UN in the Israeli-Palestinian conflict and focus on the question of whether the UN's role in this significant issue in a relatively long period has supported the neorealist or neoliberal institutionalist claims about international institutions. It mainly argues that the roles the UN played in different periods of the Israeli-Palestinian conflict fulfilled certain functions expected by the neoliberal institutionalists; however, the failure in achieving the main mission of the UN Security Council, namely maintaining international peace and security, in this particular case supports the neorealist arguments in that sense. The prominent place of the UN among international institutions and the significance of the Israeli-Palestinian conflict can be regarded as a point of reference.

2. Theoretical Debate over the Role of International Institutions

International institutions do not take place among the main units of analysis in international relations so their roles and functions as well as interactions with other actors remained open to debate. For example, the role and place of international institutions constituted one dimension of the famous neo-neo debate in the literature. On the one hand, neorealists believe that international institutions have limited role and little independent effect because “they are created by powerful states and they serve the interests of their creators” in that sense (Waltz, 2000, pp. 18-21). Waltz gives the example of NATO as an instrument of US domination. On the other hand, neoliberal institutionalists claim that “institutions

both have independent and interactive effects” by fulfilling certain functions such as “providing information, reducing transaction costs, making commitments more credible, establishing focal points for cooperation or facilitating the operation of reciprocity” (Keohane & Martin, 1995, p. 42). In other words, neoliberal institutionalists emphasize the roles of institutions as separate actors and their functions in the interactions among different actors. While neorealists point out the shaping and limiting the impact of state interests on international institutions, neoliberal institutionalists attribute a role to institutions in altering state preferences or behavior in the international arena. Therefore, they represent two diametrically opposite positions in this debate. Mearsheimer (1994/ 95) rejects the institutionalist arguments and puts forward “relative-gains considerations and concern about cheating” as the two factors inhibiting cooperation (p. 12). According to neorealist theory, states do not have a higher goal than survival and the competition for security prevents them from the likelihood of cooperation despite their concerns for economic resources and prosperity due to the anarchic nature of the international system (Mearsheimer, 1990, p. 44). Neoliberal institutionalists respond to these claims through the possible functions of institutions to “change the incentives for states to cheat and create issue linkages” (Keohane & Martin, 1995, p. 49). Moreover, they give the transformation of NATO by adopting new missions and redefining its position in the post-Cold War period as an example of possible roles of international institutions under different conditions. Under the light of the arguments of both sides, it can be perceived that neorealists consider the decisive role of states in international relations while neoliberal institutionalists attribute a role, both independent and interactive, having an impact on the decisions and actions of states. As a result, neorealists and neoliberal institutionalists represent two opposite sides in terms of the role of international institutions but there are some other scholarly approaches to the issue and they can be located between the two extreme views in that sense.

Among the realists, there are different views on the role of international institutions. Contra to neorealism, traditional realists recognize that “institutions are a vital part of the landscape of world politics” and they consider institutions as intervening variables establishing connections between “its basic causal variables and related behavior and outcomes”; additionally, modified structural realists accept some vital functions of international institutions (Schweller & Priess, 1997, pp. 2-10). Furthermore, they underline the changing role of international institutions under different structures of international systems such as unipolarity, bipolarity, or multipolarity but they obviously differ from neorealists in terms of attributing a role to international institutions in all these

international contexts. Apart from traditional realists, postclassical realism shares the state-centric view or the centrality of the concept of power with neorealists but its concerns about probabilistic focus, long-term objectives, and economic resources as a part of power make it relatively closer to non-realist theories compared to neorealism (Brooks, 1997, pp. 461-463). It can be claimed that even other realist theories attribute larger roles to international institutions than that of neorealists.

On the other hand, liberal theories generally share the views of neoliberal institutionalists at least in the sense of attributing a role to international institutions. Andrew Moravcsik puts forward the assumptions of liberal IR theory which is based on the primacy of individuals and societal actors. According to this liberal theory, state is regarded as a representative institution rather than an actor, and complementary beliefs lead to harmony and cooperation so state-society relations and state preferences have a significant impact in world politics (Moravcsik, 1997, pp. 516-520). This approach can be considered as a rejection of the neorealist view based on state interests and fixed conceptions of some elements like security and it paves the way for the contribution of other actors such as individuals, societal actors, and institutions. Regime theories have closer views to neoliberal institutionalism. For Krasner (1982), regimes are autonomous variables and they may function as intervening variables so “they may alter the power capabilities and assessments of interests of different actors” due to changes in the basic causal factors during their emergence rather than serving the interests of their creators, namely the most powerful states (p. 500). In the causal mechanism of regime theories, they not only explain the limits of realist theories but also open a way of contributing to the role of international institutions because of their central place in the emergence and maintenance of regimes. For instance, a trade regime in a particular region or in the global sense can hardly be achieved without the involvement of international institutions. A nuclear regime also requires the support or role of international institutions besides the states. International organizations contribute to the effectiveness of regimes in different ways such as transparency creation or creating new regime agendas (Kratochwill & Ruggie, 1986, p. 775). Neoliberals, in general, emphasize the function of international regimes in reducing uncertainty and transaction costs, altering state interests and preferences, and realization of common interests which may lead to cooperation (Hasenclever, Mayer & Rittberger, 2000, p. 7; Haggard & Simmons, 1987, pp. 513-514). Compared to realist theories, neoliberals and regime theories more heavily focus on the economic theories of institutions due to their likelihood of increasing interdependent relations and cooperation among the states. The rise of international regimes in scholarly analyses expanded the scope of literature

because it paved the way for looking beyond formal organizations. For Martin and Simmons, the question of how institutions matter is more meaningful instead of dichotomous debate, and institutions can simultaneously be causes and effects. They explain the diverse roles of institutions in different collaboration or coordination problems (Martin & Simmons, 1998, pp. 742-744). In sum, liberal theories and regime theories agree with the neoliberal institutionalist view on the important functions and roles of international institutions depending on the changing contexts.

3. The Role of the UN in the History of the Israeli-Palestinian Conflict

In this part of the article, I will put forward the historical background of the UN's role in the Israeli-Palestinian conflict. Although the UN was involved in the conflict in an early period even before the establishment of the State of Israel, the type, intensity, or effectiveness of its involvement changed from period to period. Therefore, it will be useful to analyze the dynamics of the UN role and the reasons for its changing roles in order to understand the interactions of international institutions with other actors and to realize the possible independent and interactive impact of the UN as an example of international institutions. Since the UN comes into prominence as the most inclusive international institution and having the mission of maintaining international peace and security, its role in the Israeli-Palestinian conflict, which is considered the core of problems in the Middle East and the shaping factor of policies and relations of all actors in the region, obviously present a reference point for comparison or theoretical debates. In addition, the different bodies of the UN, particularly the Security Council and the General Assembly, may play complementary or contradictory roles due to their different structures, voting procedures, and decision-making mechanisms; thus, they should be taken into account separately while evaluating the role and performance of the UN in a particular case. The historical background of the Israeli-Palestinian conflict provides useful information about the different roles and functions of the UN bodies in that sense.

The Palestinian territories were ruled by the British administration called the Mandate for Palestine for almost three decades. After the clashes between the Arab and Jewish communities, the Arab revolt between 1936 and 1939, social unrest, and conflicts targeting the British rule made the situation out of control for the Mandate administration. Therefore, the British administration decided to apply to the UN for a comprehensive resolution of the conflict. This application opened the way for a more active role of the UN regarding the Arab-Jewish conflict in the region. The UN established a special committee called the United Nations Special Committee on Palestine (UNSCOP) to make an investigation

about the issue. The Committee prepared a report called the Partition Plan, and the UN General Assembly adopted Resolution 181(II) (A/RES/181(II), 1947) on the “future government of Palestine” in November 1947 with the support of the majority of votes. Despite the demographic structure in favor of Arabs in that period, the UN Partition Plan assigned 55 percent of the territory to the Jewish community. Moreover, Jerusalem would have had an international status while the Arab and Jewish states would be integrated through an economic union according to the Partition Plan. The UN established the Palestinian Commission for the implementation of the Plan. Although “the plan was vague and it was not sufficiently detailed”, the Commission could prepare the Handbook determining the issues about the withdrawal of British forces and the implementation of partition (Ben-Dror, 2007, pp. 999-1000). This detailed handbook also showed the possibility of partial implementation of the Partition Plan and the feasibility of only the Jewish state. The Palestinians strongly rejected the Partition Plan because they were against the idea of partition and the UN Partition Plan was not “the legal, moral, fair, balanced, pragmatic, practicable ‘compromise’ formula” for the Palestinians (Khalidi, 1997, p. 9). Furthermore, the UN resolution was regarded as a denial of “the right of a people to self-determination” by the Palestinians (Armanazi, 1974, p. 89).

On the other hand, the Jewish decision-makers considered the Partition Plan as one step forward toward their goal of a greater state despite the opposition of some Jewish groups and some prominent leaders (Balpinar, 2019, p. 68). However, the Partition Plan could not create a permanent solution due to the lack of agreement between the two sides. The Plan also determined May 15, 1948, as the termination date of the Mandate of Palestine, and the State of Israel was established by that date. The dissatisfaction and resentment of the Arabs led to a military struggle between the Arab and Jewish forces. As a result, the UN Partition Plan and the UN Resolution 181 constituted the first attempt of the UN for resolution of the Arab-Jewish conflict in that period but it could not create the expected outcome in the short-term.

The establishment of the State of Israel started a regional military struggle and Israel could expand its territorial control to 79 percent with the help of its military superiority. Moreover, the high number of Palestinian refugees expatriated from those territories added a new dimension to the Israeli-Palestinian conflict. The UN General Assembly adopted Resolution 194 which approved the right of repatriation for the Palestinian refugees and declared the responsibilities of Israel but Israel refrained from taking this responsibility even at the discursive level (A/RES/194(III), 1948). Israel could become a UN member one year after the establishment of the State of Israel on condition that it would accept the UN

principles and decisions including being a peace-loving country. The relative stability achieved after the armistice agreements continued until the Suez Crisis in 1956. In the period of relative stability, the Arab-Israeli conflict remained in the discussions of the UN regular sessions.

The Suez Crisis witnessed a milestone in terms of the UN role because the establishment of the UN Emergency Force (UNEF) meant the emergence of the UN peace-keeping force aiming to prevent a confrontation between East and West (Urquhart, 1995, p. 575). The Suez Crisis was a critical issue and a great challenge for the UN due to the involvement of the great powers but the UNEF played a significant role as a means of peace-keeping. Additionally, the positive contribution of the UN General Assembly in the case of deadlock for the role of the Security Council depending on the British and French vetoes was of crucial importance. As a result, the General Assembly shared the responsibility of maintaining peace and security, which is the ultimate mission of the UN, through its active and effective participation (Kenny, 1973, p. 772). Thus, the emergence of UNEF and the role of the General Assembly were crucial developments and successes for the UN's role in that period. After the decolonization period, new states were established and the number of UN members increased. Since the UN General Assembly had one state-one vote principle, the rise of member states carried the potential for changing the dynamics of the UN General Assembly sessions and activities. "The number of UNGA member states rose from 51 in 1945 to 76 in 1955, 117 in 1965, and 144 in 1975" (Sarsar, 2004, p. 458). Parallel to the rise in the number of member states, the members of the Group of 77 or the Non-Aligned Movement (NAM) proliferated as well. Due to the bipolar structure of the Cold War period and the East-West division, the UN Security Council could not play the expected roles in different cases. The Middle East and many Arab regimes remained in the sphere of influence of the Soviet Union. The UN could only play peace-keeping roles in the Middle East and it became sidelined in the 1960s (Urquhart, 1995: 576). In this regional context and balance of power, the 1967 Arab-Israeli War (the June War) constituted a turning point for the evolution of the Arab-Israeli conflict.

In the 1967 Arab-Israeli War, Israel could win a landslide victory in six days. Israel occupied the Sinai, Gaza, West Bank, the Golan Heights, and Jerusalem, and the number of Palestinian refugees increased dramatically as a result of the war. The UN Security Council adopted Resolution 242 immediately after the 1967 Arab-Israeli War in order to find a diplomatic solution to the issue (S/RES/242, 1967). In UNSC Resolution 242, the UN called for an immediate ceasefire, the withdrawal of Israeli armed forces from "the" territories occupied in the recent conflicts, and respect for territorial integrity and sovereignty of every

State in the region. Since Resolution 242 constituted the basis of negotiations and peace agreements and was used as a reference point by all the actors, it gained “a weak version of a canonical text” (Falk, 2007: 40). Despite the central importance of Resolution 242, it was interpreted by the two sides in different ways due to its ambiguous meaning. While the Arabs considered the expressions of “withdrawal of Israeli armed forces from ‘the’ territories” as total withdrawal, the Jews supported the sufficiency of partial withdrawal (Balpinar, 2019, p. 103; Lapidoth, 2011, p. 12). The US took the side of the Israeli view whereas the Soviet Union supported the Arab position in that debate. Moreover, the two sides of the conflict could not agree on whether Resolution 242 provided the right to repatriation for Palestinian refugees (Quigley, 2007, p. 49). Consequently, UNSC Resolution 242 turned into a reference point for the negotiations in the next period but it was far from being a clear and all-encompassing text over which the two sides could reach an agreement.

Although the Egyptian policy towards Israel and the US changed under the leadership of Anwar Sadat, the military struggle between Israel and the Arab forces continued with the October War (the Yom Kippur War for the Jews) in 1973. The initial success of the Arab forces ended with a more balanced result. Another UN peace-keeping force called UNEF II played a role in the ceasefire at the end of the war. More importantly, Resolution 338 was adopted by the UN Security Council after the October War (S/RES/338, 1973). It called for an immediate ceasefire for the Israeli and Arab forces and the implementation of the conditions of Resolution 242 including the withdrawal of the Israeli forces from the occupied territories. Resolution 338 was considered to provide a binding impact for Resolution 242. Despite the fact that it was not legally binding, it certainly strengthened Resolution 242 in that sense (Lapidoth, 2011, p. 10). The October War became the last attempt of the Arab forces for the collective military struggle against Israel. As a result, it represented the end of the phase of the Arab-Israeli conflict, and the negotiations turned into the main platform in the long-term conflict.

In the negotiation period, the Palestinian Liberation Organization (PLO), which was established in 1964, came to the forefront by 1974. The PLO was recognized as the sole legitimate representative of the Palestinians by the UN. Thus, the Arab-Israeli conflict during the period of military struggle was replaced by the Israeli-Palestinian conflict in the negotiation phase. The UN not only gave observer status to the PLO but also the UN General Assembly reiterated the right of self-determination for the Palestinian people and the right of repatriation for the Palestinian refugees (Balpinar, 2019, p. 119). The UN played key roles in terms of the Arab-Israeli conflict, especially at moments of crisis, and made

positive contributions aiming to reach a comprehensive settlement of the issue. The UN declared two-state solution based on pre-1967 borders as its goal and vision for the final settlement of the conflict. Despite its active roles in the previous decades, the UN became a secondary player in the Israeli-Palestinian conflict by the mid-1970s (Urquhart, 1995, p. 578). The relatively weak position of the UN in that period stemmed from three reasons: “lack of confidence on the part of both Israel and the Arabs; the clash between the UN principles and *realpolitik*; and lack of great powers’ support” (Kenny, 1973, p. 782). The secondary role of the UN in the Israeli-Palestinian conflict continued in the 1980s. During that period, the UN General Assembly continued to adopt resolutions about the issue and the Security Council conducted new meetings to discuss the developments on the ground. Apart from that, the UN kept its peace-keeping capacity and it was operationalized in the appropriate cases such as Lebanon and the Golan Heights. The UN Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) also played a crucial role, especially on behalf of the Palestinian refugees. The bipolar structure of the international system during the Cold War period was one of the reasons for the low profile of the UN and the Security Council could not take initiative due to the clash of interests and disagreements among the permanent members. Consequently, the transition to negotiation phase in the Israeli-Palestinian conflict led to a relative decline in the UN’s role.

On the other hand, some scholars explained the secondary role of the UN through the US strategy based on keeping the UN out of the decision-making processes and assigning the humanitarian and development work to the UN bodies instead of a more primary role (Bennis, 1997, pp. 48-50). The idea of the decisive impact of the US policy on the UN role in the Israeli-Palestinian conflict certainly supports the neorealist view about international institutions but the international context and the details of the US influence should be taken into account for a comprehensive analysis. The shift in the US foreign policy towards the role of the UN also requires an explanation about the timing. As it was mentioned above, the number of independent states and UN members increased after the decolonization process and this development changed the dynamics within the UN, particularly the General Assembly. Parallel to the rise of non-aligned or independent actors, it became harder for the great powers, including the US, to directly influence the works and decisions of the General Assembly. The US dominance in some international institutions like the UN was no longer the case due to “the inflation of membership and the increasing divergence between rich and poor over fundamentals” (Strange, 1982, p. 484). The US started

to become critical of the UN in that period and it preferred to pursue a more proactive policy at the UN Security Council.

In terms of the Israeli-Palestinian conflict, the US began to use its veto power, especially for the resolutions against Israel starting in the 1970s (Sarsar, 2004, p. 459). The unconditional support of the US for Israel was not surprising because of the strategic importance of Israel for the US foreign policy in the Middle East. The Islamic Revolution in Iran in 1979 increased the strategic importance of Israel in the region. The US-Israeli alliance was based on many factors such as shared national interests, their similar visions for the Middle East, common religious traditions, especially among the American Protestants including the Evangelicals, cultural disposition among the Americans towards the Jewish people, high number of Jewish voters and the strength of pro-Israel lobby (Sarsar, 2004, pp. 460-462). The marginalization of the UN's role in Middle Eastern affairs and the support of the US to Israel against the anti-Israeli resolutions at the UN were parts of the US strategy in that sense. The degree of influence of the US strategy on the changing role of the UN is open to debate but the evolution of the UN role and activism from primary to secondary level in different periods was apparent.

The negotiation period in the Israeli-Palestinian conflict was maintained through bilateral negotiations and some peace attempts under the US mediation so the UN did not play a leading role. The process starting with the Camp David Accords in 1978 led to some improvements but they could not turn into a comprehensive settlement of the conflict due to crucial diverging points, especially on the main issues such as the status of Jerusalem, the Palestinian refugees, and the borders. Against the Israeli attempt for declaring Jerusalem as its capital, the UN Security Council adopted Resolution 478 which condemned the attempt and called it illegal (S/RES/478, 1980). This resolution exemplified the immediate reactions of the UN against the developments on the ground. On the other hand, the Palestinian National Council, which was a body of the PLO, proclaimed the State of Palestine in 1988 during the process of the First Intifada, referring to the general protests and riots of Palestinians against the Israeli occupation. The UN General Assembly adopted Resolution 43/177 in favor of this proclamation or Declaration of Independence (A/RES/43/177, 1988). The increasing number of UN members after the decolonization process led to the rise in support for pro-Palestine resolutions and many states also recognized the State of Palestine. It can be claimed that the UN support for the State of Palestine played a legitimizing role. Although the Oslo process produced some concrete results like the Declaration of Principles and mutual recognition, the successive peace attempts could not lead to the expected outcomes in the following period.

By the turn of the new millennium, the Middle East Quartet which consisted of the UN, the EU, the US, and Russia was established in 2002 to "help mediate Middle

East peace negotiations and to support Palestinian economic development and institution-building in preparation for eventual statehood” (UNSCO, 2020). It emerged as an international initiative and meant a fresh start with the involvement of prominent actors. Despite the positive atmosphere of the declaration of a Roadmap, this initiative also ended in failure. The Hamas victory in the Palestinian elections and the geographical and political split between the Gaza and West Bank made the situation more complicated on the ground. When the Arab Uprisings emerged in the Middle East and changed the regional dynamics dramatically, the failure of previous peace attempts almost dashed all the hopes about the peaceful resolution of the Israeli-Palestinian conflict.

The eruption of the Arab Uprisings and the spread of the revolts throughout the region created a window of opportunity for the Palestinian Authority (PA) under the leadership of Mahmoud Abbas. The rise of the Muslim Brotherhood in the initial period of the Arab Uprisings meant a favorable regional context for the PA due to their close relations with the Muslim Brothers. Mahmoud Abbas decided to apply to the UN for full membership in 2011 in order to increase its international support base and this application reactivated the UN’s role in the Israeli-Palestinian conflict (United Nations Digital Library, 2020). This application was not put to vote at the Security Council so it could not end in immediate success for the Palestinians as expected. After that, the status of Palestine was upgraded to a non-member observer state by the UN General Assembly (A/67/PV.44, 2012). This strong support became another example of the general tendency for pro-Palestine resolutions at the General Assembly. This resolution provided new rights for the Palestinian delegates in the UN sessions except for voting and it opened the way for Palestine’s membership in other UN bodies and the International Criminal Court (ICC). In December 2014, another draft resolution was prepared to realize the goal of Palestinian statehood. According to that draft resolution, the negotiations with Israel would be completed and the UN membership of Palestine would be accepted in one-year time; in addition, a Palestinian state with East Jerusalem as its capital would be established by the end of 2017 (UN News, 2014). It, undoubtedly, aimed to propose a timeline for a comprehensive solution under the framework of two-state solution but it could not get the minimum nine votes with the unexpected abstention of Nigeria.

In the Obama period, US-Israeli relations were rocky due to the problems and disagreement between Obama and Netanyahu. Although the Obama Administration maintained the traditional support for Israel in the international arena, the problems in the bilateral relations became more apparent with the UN Security Council Resolution 2334 (S/RES/2334) calling the Israeli settlement projects a “flagrant violation of international law” and having no “legal validity” (S/RES/2334, 2016). The US abstained from the vote so the resolution was accepted by the votes of other

members in favor. The US abstention can be considered as a last-minute warning by the Obama Administration rather than a radical departure due to the non-binding character of the resolution; thus, it reflected an exceptional move in that sense.

During the Trump period, the US had closer relations with Israel and made some bold attempts even by changing the traditional US foreign policy towards the Israeli-Palestinian conflict and the shift in the US policies led to reactions of other actors through international institutions including the UN. As the most important example of foreign policy shifts in the Trump period, the US recognized Jerusalem as Israel's capital and planned to move the US embassy from Tel Aviv to Jerusalem. It was certainly a bold initiative aiming to change the status quo and consensus of the Western actors about neutrality on Jerusalem. The issue was first brought to the Security Council at the UN. The draft resolution calling for the withdrawal of the US decision to recognize Jerusalem as the capital of Israel was not accepted due to the US veto despite the fourteen votes in favor (Beaumont, 2017). The result showed the common negative view against the US attempt among the international actors. This result was succeeded by another initiative at the UN General Assembly. The General Assembly adopted the resolution (A/ES-10/L.22), on the "Status of Jerusalem", "asking nations not to locate diplomatic missions in Jerusalem" with the help of 128 votes in favor (A/RES/ES-10/19, 2017). The voting results at the Security Council and the General Assembly appeared that the Trump Administration could not get the expected support in the international arena especially of the major European actors despite its active campaign. Last of all, the UN General Assembly adopted another resolution (A/73/L.5) which provided additional rights and privileges for Palestine when it assumed its position as chair of the Group of 77, the largest group at the UN, for 2019 (A/RES/73/5, 2018). With this last resolution at the UN General Assembly, the State of Palestine could get all the rights and privileges except for the ones for full members. Therefore, the General Assembly became the platform where the Palestinians could get certain legal and political advantages while the attempts at the Security Council were blocked by the US veto. As a result, the regional context emerged in the initial phase of the Arab Uprisings contributed to the reactivation of the UN bodies and they produced some improvements at the General Assembly in the last decade but the non-binding decisions of the General Assembly were not sufficient to change the balance of power on the ground.

5. Analysis of the UN Role in the Israeli-Palestinian Conflict from the Perspective of IR Theories

The UN got involved in the Israeli-Palestinian conflict with the application of the British Mandate and made its first attempt with the Partition Plan. After that period, the UN bodies, particularly the General Assembly and the Security Council, played

different roles about the issue. The establishment of the UN peace-keeping force, UNEF, during the Suez Crisis added a new element to the UN mission. Moreover, UN Security Council Resolution 242 and Resolution 338 constituted the main reference points for negotiations and peace attempts. These primary roles of the UN during the period of military struggles between Israel and the Arab forces were maintained by the secondary roles of the UN bodies in the negotiation phase. Whereas the pro-Palestinian or anti-Israeli initiatives at the Security Council were blocked by the US, the attempts on behalf of the Palestinians at the General Assembly led to legal and political advantages for them like upgrading Palestine's status at the UN but they were far from satisfying the demands of the Palestinian people and changing the balance of power on the ground. This part will analyze the role of the UN bodies in the Israeli-Palestinian conflict from the perspective of IR theories. It will address the question of whether the role of the UN in the Israeli-Palestinian conflict supports the neorealist or neoliberal institutionalist claims about international institutions.

Because of the different voting procedures, functions, and missions of the UN bodies, the contribution of the General Assembly and the Security Council toward the international crises or issues differed from one another. While the Security Council was considered responsible for the maintenance of international peace and security, the General Assembly was assigned to formulate the principles according to the UN Charter. The General Assembly was the creative body whereas the Security Council was the body of action in the eyes of the founders of the UN. Parallel to their main missions, particular Security Council decisions had a binding character for the UN members but all the General Assembly decisions were mere recommendations for the relevant actors. Therefore, the Security Council had a more critical mission and responsibility compared to the General Assembly. In terms of the voting procedures, the Security Council resolutions required a particular majority (9 out of 15 members for the present case) but the five permanent members had the right to veto. On the other hand, the General Assembly has one state-one vote principle. Due to the differences in their missions and voting procedures, their historical performance can be summarized as such: "the General Assembly has functioned as both a creative body and an organ of action", especially during the times of crisis when the Security Council came to a deadlock depending on the diverging interests and policies of the permanent members (Lande, 1966, p. 84). This difference can be observed in different periods of the Israeli-Palestinian conflict as well.

The veto power of the five permanent members of the Security Council creates an imbalanced and unfair distribution of power and influence among the Council members. It was even claimed that "agreement between five is the same as agreement between 15" (Mahbubani, 2004, p. 253). The veto power of the permanent members

historically had a negative function. Additionally, the prominence and decisive aspect of the diverging interests of the permanent members on critical international issues lead to a deadlock in the dynamics of the Security Council. This situation undermines the effectiveness of the UN as an international institution. In the previous decades, there were many reform proposals aiming to change the structure of the Security Council. Despite some successful reforms to make the Council activities more efficient and operational, the imbalanced nature of the Council due to the veto power of the permanent members could not be changed. The existing structure of the Security Council was considered as a balancing mechanism among the great powers in the international arena so the status quo became more preferable instead of fair distribution. This structure certainly created tension between “power (or effectiveness) and legitimacy (or justice)” (Russett, 1997, p. 18). As a result, the structure of the Security Council reflected the balance of power in the context of the post-World War II period but its unfair and imbalanced distribution led to criticisms and reform proposals.

The roles of the UN General Assembly and the Security Council in the Israeli-Palestinian conflict can be considered as an extension of their roles in other international conflicts or crises. While the General Assembly played the role of a creative body by providing certain improvements such as emphasizing the rights of Palestinians and the Palestinian refugees and increasing the legal status of Palestine at the UN, most of the attempts at the Security Council were blocked by the US veto despite the Council’s significant resolutions which were used as main reference points for the negotiations. The frequent use of the US veto aimed to protect the American and Israeli interests in the region but it led to deadlock at the Security Council in many cases: “In fact, as of July 2012, the US has exercised its veto 41 times on matters related to either Israel or Palestine out of a total of 82 vetoes it has cast at the Security Council of the UN” (Khalifa, 2013, p. 207). This number can be more meaningful when the information that the voting unanimity was achieved over 90 percent for the adopted resolutions is taken into account (Romita, 2018, pp. iv-v). Although the deadlock at the Security Council is not exceptional for international crises, this high voting unanimity shows the consensus of the member states for the resolutions about other issues. Apart from that, the threat to veto or possible veto of permanent members might be as effective as the veto itself. Thus, the hidden or possible veto blocks some initiatives in the initial phase and the voting unanimity may seem higher than the real ratio. Consequently, the frequent use of the US veto or its possible veto blocks many attempts about the Israeli-Palestinian conflict at the Security Council so binding decisions cannot be taken about the issue.

Under the light of this information, have the roles of the UN bodies in the Israeli-Palestinian conflict supported the neorealist arguments about international

institutions, or have they highlighted the functions of international institutions expected by the neoliberal institutionalists? First of all, it should be underlined that this dichotomous view might be misleading for analyzing the reality on the ground. Therefore, all the related issues should be taken into account painstakingly to reach a comprehensive perspective. Subsequently, the role of the UN in a particular case, the Israeli-Palestinian conflict for the purposes of this article, can only be considered as an example of the role of international institutions so it will certainly require more scholarly research studies and analyses on different international institutions and cases to reach more general conclusions about the debate.

At the end of the day, could the UN play a role going beyond a minimal independent impact argued by the neorealists for international institutions, or could it show the functions expected by the neoliberal institutionalists? Looking at the bright side, the UN General Assembly adopted many pro-Palestinian resolutions, encouraged the establishment of a Palestinian state, and increased the legal status of Palestine at the UN. These developments strengthened the hands of Palestinians to a certain extent but they were far from balancing the asymmetric power relations on the ground. Since the General Assembly decisions were considered as recommendations for the UN members, expecting such a game-changing impact from the General Assembly is not realistic indeed. On the other hand, the Security Council adopted some important resolutions such as Resolution 242 and Resolution 338 after the Arab-Israeli Wars. However, the conditions of these resolutions were not put into practice due to the lack of enforcement mechanisms. For example, Israel did not withdraw its forces from the occupied territories and it did not accept the right to repatriate for the Palestinian refugees. As it was mentioned above, many other initiatives about the Israeli-Palestinian conflict at the Security Council were blocked by the US veto. In other words, binding decisions in favor of Palestinians are really hard to take at the Security Council and the small number of adopted resolutions cannot be enforced. Therefore, the UN bodies could not play a larger role in the Israeli-Palestinian conflict, their resolutions could not create concrete results on the ground and they cannot be regarded as attempts going beyond a minimal independent impact attributed to the international institutions by neorealists.

The role of the UN bodies in the Israeli-Palestinian conflict produced similar results expected by the neorealists; however, the Palestinian case does not completely fit the neorealist view. In the first place, the UN bodies fulfilled particular functions such as reducing uncertainty, creating issue linkages, and providing more information so they provided opportunities for maintenance of negotiations and making new initiatives through the UN. Looking at the other side of the coin, these functions could not lead to expected consequences so they remained open to criticism in that sense. It should be underlined that the attempts at different bodies of the UN and the

functions of the UN bodies created another international platform for the sides of the Israeli-Palestinian conflict and they helped overcome the dichotomous view reducing the options to two: agreement or military conflict. This third option not only opened a new platform but also provided advantages for the success of negotiations. To put it another way, the UN role created more time for the two sides in order to reach a more comprehensive solution for the conflict. The UNRWA activities for the Palestinian refugees and the pro-Palestine resolutions at the General Assembly and the Security Council played supplementary roles to use this time more efficiently. Otherwise, the living conditions of Palestinians would be worse and the Palestinian delegates would be totally hopeless in the international arena. In sum, the UN's role extended the time of negotiations rather than the settlement of the conflict.

On the other hand, neorealists may rightly claim that the extended time facilitated the interests of Israel which is advantageous due to asymmetric power relations on the ground. Parallel to this perspective, the roles of the UN bodies lessened the international pressure over Israel. Furthermore, Israel did not need to make concessions in the negotiations depending on the benefits of the status quo; on the contrary, it continued to make aggressive actions against the Palestinian groups, especially after the Hamas control in Gaza. Apart from that, the collective social protests or movements of the Palestinian groups, namely the First Intifada started in 1987 and the Second Intifada started in 2000, contributed to more concrete results and benefits for them compared to the activities of the UN bodies. Thus, the contribution and relative advantages of the UN processes to other options such as military conflict or collective social movement are debatable in that regard.

Secondly, the attempts at different bodies of the UN have shown that they no longer directly serve the interests of great powers like the US. With the rise in the number of UN members, the ratio of non-aligned members increased and this change led to the increase in pro-Palestinian attempts. Therefore, the US strategy about the UN role became sidelining the UN or assigning secondary roles to the UN. The shift in the UN roles after the changing US strategy can be considered as the impact of the policies of the prominent states in that regard. The number of anti-Israeli resolutions also increased at the Security Council but the US could block the initiatives by more frequently resorting to its veto power. Consequently, it can be claimed that it was difficult to take significant decisions and impossible to take binding decisions against the will of the permanent members at the UN so the negative impact of the veto power came into prominence. In other words, the survival of international institutions, like the UN, might be interpreted as dependent on not undermining the interests of great powers instead of serving their interests.

6. Conclusion

The UN has long been a part of the Israeli-Palestinian conflict and the UN bodies, particularly the General Assembly and the Security Council, played various roles in different periods. Historically, the primary roles of the UN during the era of military struggles were replaced by secondary or relatively less significant roles in the negotiation phase. In terms of the UN bodies, the General Assembly resolutions were generally more constructive and pro-Palestinian due to the one state-one vote principle but they did not have a game-changing impact because of their recommendatory (advisory) character. The Security Council resolutions after the Arab-Israeli Wars turned into the main reference points in the negotiations but their conditions could not be put into practice due to the lack of enforcement mechanisms. Other pro-Palestinian initiatives at the Security Council were blocked by the US veto. In general, the UN bodies provided another international platform for the two sides and extended the time for reaching a comprehensive settlement of the conflict by fulfilling certain functions. However, this time extension and maintenance of the status quo were more beneficial for Israel as the stronger actor on the ground. As a result, the roles and actions of the UN bodies in the Israeli-Palestinian conflict led to consequences closer to the neorealist arguments about the role of international institutions. The existing structure of the Security Council and the unfair or imbalanced distribution at the Council due to the veto power of the permanent members can be considered as the main reason for that result. The generalization of this result may be misleading so it certainly requires more research studies and analyses to be completed and compared in order to reach more general conclusions. In any case, the analysis of the role of the UN, as the most inclusive international institution, in an important regional and international phenomenon like the Israeli-Palestinian conflict provides important insights and comparative advantage to the neorealists in the neo-neo debate.

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Chapter 2

Drought Analysis and Precipitation Variability of Konya Sub-region in Central Anatolia Region, Türkiye for the period 1970-2021

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1. Introduction

Approximately 40% of Turkey's land mass of 78 million hectares is semi-arid and approximately 60% of the total semi-arid area is located in the Central Anatolia Region of the country (Aydın, 1995). Semi-arid regions are sensitive to climate changes. The Cappadocia region, Tuz Lake basin, Konya-Ereğli plain and Konya basin, located in the southern part of the Central Anatolia region, are sensitive parts of desertification (Türkeş, 2005, 2010; Türkeş et al., 2009a; Türkeş and Akgündüz, 2011; Kızılelma et al., 2015; Sarış and Gedik, 2021). Steppe and dry forests are the dominant vegetation in these parts (Bayer-Altın, 2008, 2010; Avcı, 2004). In studies conducted not only for the Central Anatolian region, but also for the Eastern Mediterranean and Turkey, it was determined that there was a decrease in the total amount of precipitation after the 1970s and an increase in the effect of arid conditions (Türkeş, et al., 2007; İçel, 2009; Türkeş, 2012; Öztürk et al., 2015; Oğuz and Akın, 2019). In some studies, it has been determined that areas prone to desertification have emerged in the Konya sub-region (Türkeş and Akgündüz, 2011; Bayer-Altın et al., 2012; Bayer-Altın, 2019a). Sarış and Gedik (2021) determined that the rate of particularly severe and extremely dry years in long-term precipitation series was significantly higher in the Konya closed basin. In the same study, it was stated that this situation in long-term series is an indicator of the development of agricultural and hydrological drought. In one of the studies on Konya Closed Basin, the drought trend of Konya, Karaman, Karapınar and Aksaray stations was examined and it was determined that severe drought was experienced especially in the early 1970s and early 2000s (Türkeş et al., 2009a). In another study (Bayer-Altın 2019b) on the drought of Aksaray province, it was determined that severe drought occurs frequently in July, according to the PNI results. In addition, in this study, it was stated that the winter season of 2017 was severely dry, and 2012, 2013 and 2014 were moderately dry for the spring. In the study on the drought analysis of Konya province, it is predicted that in Akşehir, Beyşehir and Hadim where the average rainfall is high, mild drought will be experienced between 2021 and 2024 and moderate drought will be experienced in the long term (Bayramoğlu and Ağızhan, 2022). In the same study, it is predicted that a moderately effective drought will be experienced in Cihanbeyli and Kulu until 2029, while it is predicted that the drought will be severe in Yunak and Çumra. In the study examining the drought analysis of the Konya basin using satellite-based precipitation data, it was determined that there were seven long dry periods in the last 18 years and the most severe and the highest average impact area was experienced between 2006 December and 2007 October (Yılmaz, 2017). In the study on the aridity of the Tuz Lake basin, where the Kulu, Aksaray, Karapınar and Çumra stations are located, it was determined

that there was a 2-3°C increase in average temperatures and a decreasing trend in the average precipitation amount (Akin, 2019). In the same study, it was emphasized that especially since the 2000s, the effect of drought has increased. In another study, the negative effect of meteorological drought in the Konya basin on hydrological drought was revealed (Bayer-Altın, 2019c). In the same study, it was determined that severe dry years took place in Ayrancı Stream in 2001-2002, in Zanapa Stream in 2006-2007, in İbrala and İvriz Stream in 2014-2015. Since meteorological drought also triggers hydrological drought, the presence of irrigation is as important as soil and land structure in combating drought and minimizing the effects of drought (Bayramoğlu and Ağızhan, 2022). As a matter of fact, since the rainfall is insufficient, the water is provided for the plant by using groundwater and the irregularities in the precipitation regimes of the region and the decrease in the underground resources limit irrigation. The average precipitation of Konya for many years (1970-2020) has been calculated as 360 mm, and a total of 14.769 billion m³ precipitation falls on its surface area (KTOM, 2021). From the above studies, it is understood that the arid and semi-arid areas (Tuz Lake and Konya closed basins) in the Konya sub-region are at risk of desertification. When these basins are evaluated as water-poor areas, it is vital that water consumption is made consciously, especially in terms of the agricultural sector, if necessary precautions are not taken.

As can be understood from the above studies, drought analysis of Konya sub-region has not been studied. The drought conditions of either the Tuz Lake basin or the Konya closed basin in the sub-region were determined. In this study, the whole Konya sub-region will be discussed and examined. Thus, similarities and differences between the mentioned basins in terms of drought will be determined. The main aims of this study are (1) to determine the drought severity of the stations, the beginning and the end of the dry periods and to reveal the spatial distribution; (2) to establish a relationship by comparing the results of drought indices with each other; (3) to reveal a drought determination and monitoring approach by comparing the results with the findings of studies related to Türkiye and Central Anatolia Region.

2. Geographic setting and climate

Konya sub-region is one of the four sub-regions of the Central Anatolian Region and is located in the south (Fig. 1). Konya sub-region is situated between latitudes 39°15'23.02" and 36°22'57.32" north, and between longitudes 31°20'33.10" and 34°28'12.59" east. The area of the sub-region is approximately 54,600 km² and this area covers 36% of Central Anatolia Region. In the west, it is separated from the Aegean region and the Upper Sakarya sub-region by a line

drawn from Mt. Emir in Inner West Anatolia to the north of Tuz Lake. It is separated from the northern and eastern sub-regions (Upper Sakarya sub-region and Middle Kızılırmak sub-region) by a line to be drawn to Mt. Hasan from the north of Tuz Lake (English means Salt Lake), leaving Aksaray City in the Konya sub-region. Konya sub-region forms the driest and most uninhabited part of the region (Arınç, 2006). There are 3 large closed basins in the sub-region, Konya Salt Lake and Akşehir-Eber Lake closed basins. The sub-region consists of plateaus and plains separated by thresholds whose elevation does not exceed 1000 m. These plateaus and plains are Cihanbeyli and Obruk plateaus, and Konya, Ereğli, Karapınar and Aksaray plains. The Obruk plateau is located between the plains of Konya, Karapınar, Ereğli and the Tuz Lake basin. The sub-region is bounded from the south by the Taurus Mountains. Besides the folded mountain ranges, there are also very distinctive relief elements such as low mountain ranges and volcanic cones lined up along a certain line.

Due to the fact that the sub-region is surrounded by mountain ranges (especially from the south), the continental climate is dominant. Especially winter temperature conditions are more suitable than other terrestrial regions. This specifies a transition type. There is an impact due to the contact of the sub-region with the Mediterranean (from south) and continental climate areas. When all these features are taken into consideration, the semi-arid stepic type of the Mediterranean climate is dominant in the plain areas such as Hadim in the south, Akşehir, Beyşehir and Seydişehir in the west and it shows a transition climate characteristic.



Fig. 1 (a) Location of the study area, Konya sub-region and Central Anatolia Region in Türkiye and (b) location of the Central Anatolia Region along with the geographical distribution of the meteorological stations used in the study and the sub-regions within the region.

The annual average precipitation of the sub-region is 420 mm and it is classified as a semi-arid climate zone. However, annual average precipitation is below 350 mm in Konya-Ereğli plain, Tuzalt Lake basin, Karapınar plain. This shows that the distribution of precipitation is not homogeneous within the sub-region and the climate type changes according to the locations (Sarış and Gedik, 2021). For example, Hadım in the south of the sub-region, Akşehir, Beyşehir and

Seydişehir stations in the west are affected by the frontal activities from the south, so the annual total precipitation is over 489 mm for period 1970-2021. These stations are located in a relatively cold and rainy winter and hot and arid climate zone in summers. The precipitation amounts of the other stations in the sub-region vary between 291-382 mm, and the climate type is cold in winter and hot in summer (Türkeş, 2005, 2009; Türkeş and Akgündüz, 2011; Bayer-Altın et al., 2012; Çiçek and Yılmaz, 2017; Türkeş, 2020). The station that receives the most precipitation is Seydişehir with an annual average precipitation of 748 mm, the station that receives the least precipitation is Karapınar with 291 mm (Fig. 2a). In the stations from January to May, the monthly average precipitation varies between 32 and 40 mm. Decreased precipitation amounts from June are below 5 mm per month in the July-August period. Precipitation increases again from September and the monthly total precipitation does not exceed 40 mm until November, except for Seydişehir, Beyşehir, Hadim and Akşehir. The precipitation amount of these four stations in November varies between 53 mm and 90 mm. In December, conditions similar to January occur and the amount of precipitation exceeds 130 mm at Seydişehir (Fig. 2b).

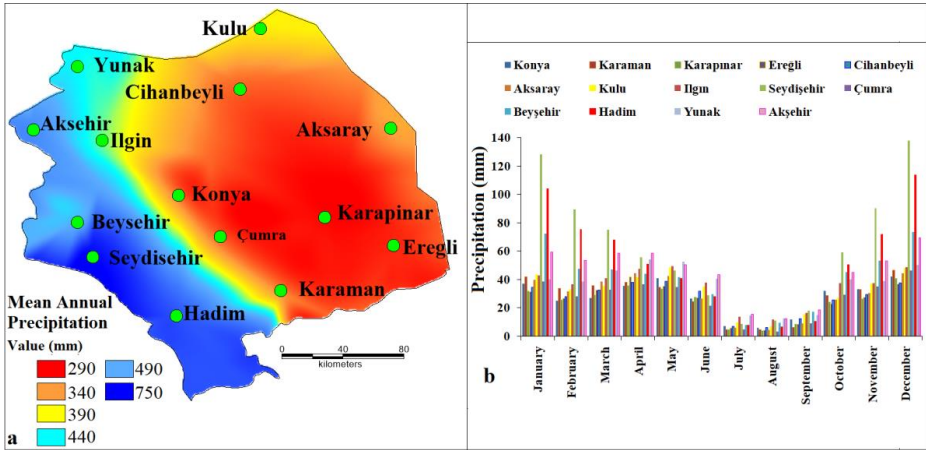


Fig. 2. (a) Spatial distribution of mean annual precipitation, (b) monthly precipitation averages of stations in Konya sub-region over the period 1970-2021.

3. Material and Methods

In the study, monthly total precipitation values of 14 meteorological stations (Konya, Karaman, Karapınar, Ereğli, Cihanbeyli, Aksaray, Kulu, Ilgın, Seydişehir, Çumra, Beyşehir, Hadim, Yunak and Akşehir) were taken and used from the Turkish State Meteorology Service. Stations with recording periods exceeding 50 years and full recording periods were selected (Table 1). In the

study, firstly, precipitation data were organized as monthly, seasonal (winter, spring, summer and autumn) and annual series. First of all, drought analysis was applied to these series. After these analyzes with Erinç Aridity Index (Im) (equation 1) and Percent Normal Index (PNI) (equation 2), the dimensions of drought at different temporal scales were revealed. Then, according to the findings of the PNI analyzes, the dry periods that occurred in the last ten years were determined. Using the Erinç (1965)'s Aridity Index, the 52-year period was divided into two separate periods in order to see the extreme and severe droughts experienced in the sub-region more clearly in the last 26 years (1970-1995 and 1996-2021). Using the index values obtained finally, the drought severity map of the basin was prepared separately for the two periods by applying the triangulation with smoothing interpolation method of MapInfo11. The spatial distribution patterns of inter-annual variability of total annual and seasonal precipitation were investigated by coefficient of variation (CV) Precipitation variability (in %) values (equation 3) were calculated for each station separately (equation 3). In order to determine the precipitation variability of 14 stations and to determine the spatial distribution of variability, the variability coefficient of each station was calculated. The values were transferred to a database in order to determine the spatial distribution of precipitation variability (CV). Results are mapped separately for annual, winter, spring, summer and autumn seasons to reveal annual and seasonal differences.

Table 1. Introducer information of the meteorological stations in the Konya sub-region.

Station	Elevation (m)	Latitude North	Longitude East	Period	Annual mean precipitation (mm)
Konya	1020	37°86'	32°47'	1970-2021	324
Karaman	1033	37°19'	33°22'	1970-2021	332
Karapınar	1026	37°71'	33°22'	1970-2021	291
Ereğli	1050	37°52'	34°04'	1970-2021	301
Cihanbeyli	951	38°65'	32°92'	1970-2021	321
Aksaray	980	38°37'	33°99'	1970-2021	343
Kulu	968	39°07'	33°06'	1970-2021	382
Ilgın	1030	38°27'	31°89'	1970-2021	420
Çumra	1020	37°56'	32°79'	1970-2021	320
Yunak	1031	38°82'	31°72'	1970-2021	443
Beyşehir	1147	37°67'	31°74'	1970-2021	489
Akşehir	1050	38°36'	31°42'	1970-2021	538
Hadim	1511	36°98'	32°45'	1970-2021	629
Seydişehir	1089	37°42'	31°84'	1970-2021	748

3.1. Erinç's aridity index (Im)

The Erinç's aridity index (Im) is based on the ratio between precipitation and the average maximum air temperature that causes a water deficit through evaporation (Erinç, 1965). It is used to determine the dry-humid periods of a region. The index was calculated by the following equation 1,

$$Im = P/T_{max} \quad (1)$$

where P is the monthly or annual total precipitation (mm), T_{max} is monthly or annual average maximum air temperature (°C). Erinç (1965) compared the vegetation formations in Turkey with the index results and divided the index into six main classes (Table 2).

Table 2. Erinç (1965)'s climate types corresponding to the aridity index (Im) and vegetation types.

Im	Climate type	Vegetation type
<8	Severe arid	Desert
8-15	Arid	Desert- like steppe
15-23	Semi-arid	Steppe
23-40	Semi-humid	Dry forest
40-55	Humid	Humis forest
>55	Perhumid	Perhumid forest

3.2. Percent Normal Index (PNI)

The percent-of-normal index (PNI) is based on dividing the precipitation amount within the specified time period by the average and multiplying the result by one hundred to obtain a percent value (Willeke et al., 1994). 12 months or less of precipitation is taken into account when calculating the PNI. PNI is calculated by following equation 2,

$$PNI = (P_i/P_i^{ort}) * 100 \quad (2)$$

Where P_i is actual precipitation (mm), P_i^{ort} is average amount of precipitation (mm). In a drought assessment made by considering the PNI values, the time period when the index is constantly lower than the threshold is defined as the dry period. The value that first falls below the threshold is considered the beginning of the drought, while the value that the index rises above the threshold is

considered the end of the drought. With this method, drought severity is classified according to categories as seen in Table 3.

Table 3.Classes of PNI values for different periods

Period	Normal and above no risk	Moderate drought watch	Severe drought warning	Extreme drought emergency
1	>75%	65%-75%	55%-65%	<55%
3	>75%	65%-75%	55%-65%	<55%
6	>80%	70%-80%	60%-70%	<60%
9	>83.5%	73.5%-83.5%	63.5%-73.5%	<63.5%
12	>85%	75%-85%	65%-75%	<65%

3.3. Precipitation variability (CV)

Inter-year changes in precipitation amounts for long years are defined as precipitation variability (Türkeş, 1990; Ölgün, 2010). The coefficients of variation (CV) for the stations were calculated using the formula below (equation 3).

$$CV = (\sigma/P_s) * 100 \quad (3)$$

Where P_s is the long-term average precipitation value at a station, σ is the standard deviation of the long-term average precipitation for the station. If the CV value is above 25%, it indicates that the precipitation is far from the mean. This indicates arid and semi-arid areas (Türkeş, 1990). A high coefficient of precipitation variability is of vital importance especially for agricultural activities, as it also means a lack of water (Ölgün, 2010).

4. Results and discussion

4.1. Annual and seasonal precipitation variability (CV)

The spatial distribution of the annual coefficients of variations is presented in Figure 3. Small differences are observed in CV values across the department. It is seen that CV values increase regularly from the west to the middle part (Konya and its surrounding). Depending on the precipitation regime, the annual variation coefficient increases in the middle sub-region and decreases in the western sub-region where the regular precipitation regime is dominant. The coefficient of variability in most parts of the sub-region is below 25%. The lowest CV value is observed for Ilgın with a CV value of 17%. The highest CV value is observed for Konya, Kulu and Çumra with the CV value of 23%. In the sub-region, the rate of annual variability is low at stations where the total annual precipitation values are

high, while it is high at the stations where the total annual precipitation values are low. This finding is consistent with studies on Turkey's and regional precipitation variability (Türkeş, 1999, 2005; Ölgün, 2010; Sarıış et al., 2010; Bayer-Altın and Barak, 2014).

Figure 4a shows the spatial distribution of seasonal variability. As shown, the winter CV values are above than 25% over the sub-region and range from 33% to 46%. The lowest winter CV value is observed for Yunak with the CV value of 33%. The highest CV value is observed for Kulu with the CV value of 46%. The CV values vary between 34% and 44% in other stations. Spring CV values are not as high as winter CV values. The spatial distribution of the spring coefficients of variations is presented in Figure 4b. Spring CV values are not as high as winter CV values. The lowest spring CV value is observed for Aksaray with the CV value of 29%. The highest CV value is observed for Çumra with the CV value of 42%. The CV values vary between 31% and 39% in other stations. When the summer precipitation variability map (Fig. 4c) is examined, it is observed that the coefficient of variation increases in the north and middle parts. The lowest summer CV value is observed for Akşehir with the CV value of 55%, followed by Seydişehir with a CV value of 56%. The highest CV value is observed for Cihanbeyli with the CV value of 80%, followed by Aksaray with the CV value of 75%. The CV values vary between 56% and 75% in other stations. As shown in Figure 4d, Autumn CV values are not as high as spring CV values. The lowest autumn CV value is observed for Hadım with the CV value of 40%, followed by Yunak with a CV value of 42%. The highest CV value is observed for Cihanbeyli with the CV value of 55%. The CV values vary between 42% and 53% in other stations. Although spring is the rainiest season in the department, the coefficient of variability is quite high. This indicates that arid and semi-arid conditions will prevail in the future due to the decrease in spring precipitation. This has been proven in studies on the drought of the Central Anatolia Region and Konya Basin (Türkeş et al., 2007, 2009; Bayer-Altın et al., 2012; Kızılelma et al., 2015; Çiçek and Duman, 2015).

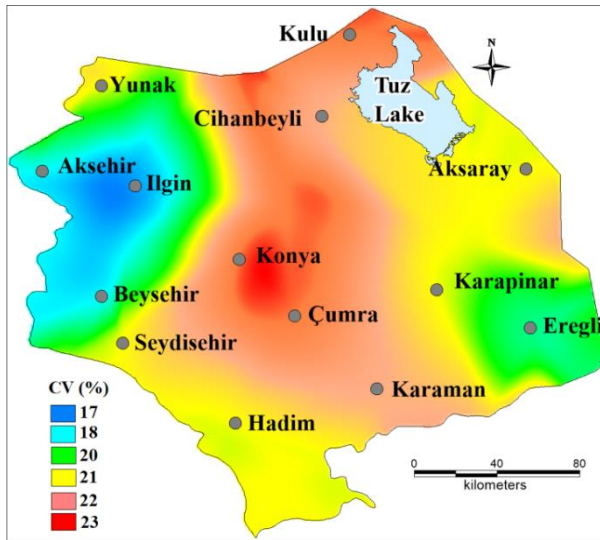


Fig. 3. Spatial distribution of annual precipitation variability over Konya Sub-region

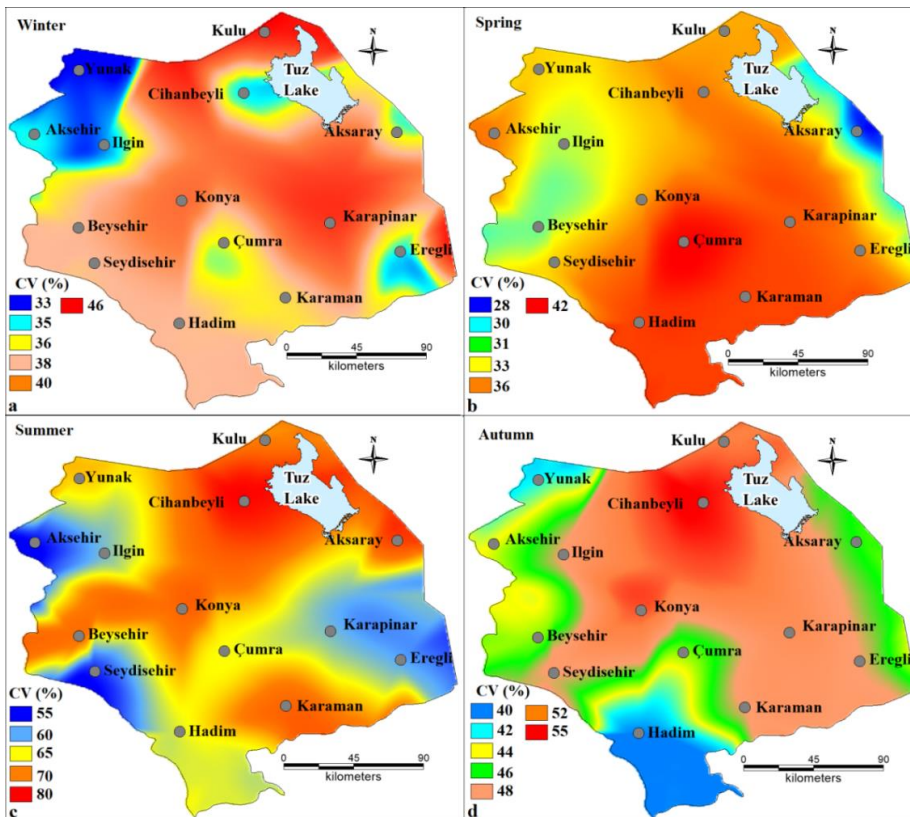


Fig. 4. Spatial distribution of seasonal precipitation variability of stations in Konya Sub-region

4.2. Erinç aridity index

Im values were divided into two periods, 1970-1995 and 1996-2021, and compared with each other. Thus, the significant difference after the first period could be seen well. The years 1970-1992 were evaluated as the first period, and the years 1993-2009 as the second period. Spatial distribution Erinç aridity index (Im) for period 1970-1995 is shown in Figure 5a. Im values vary from 11 to 31. In the first period, the lowest index value is determined in Karapınar, while the highest index value (Im: 31) is determined in Hadim and Seydişehir. In the second period (Fig. 5b), the lowest index value (Im: 11) is determined in Karapınar and Ereğli, while the highest index value (Im: 31) is determined in only Seydişehir. When the first and second period climate types were compared, no significant change is observed except for Konya and Kulu. While semi-arid climatic conditions are observed in Konya (Im: 16) and Kulu (Im: 17) in the first period, arid climatic conditions prevail in the second period. In the second period, Im value in Konya and Kulu was 13 and 15, respectively. However, the second period index values of some settlements such as Karaman, Ereğli, Aksaray, Çumra, Hadim, Yunak and Akşehir show values close semi-arid and arid climates, which indicates that these areas will be under the risk of desertification in the future. As a matter of fact, Türkeş (2005) identified Aksaray and its immediate surroundings as areas open to desertification risk. Bayer-Altın (2019a) found a similar finding in her study on Konya Plain Project (KOP region). It has been determined by Bayer-Altın (2019a) that arid climate will dominate in the settlements in the close vicinity of Konya and Aksaray in the future. In the study (Türkeş et al, 2009) using the Palmer Drought index, Karaman was determined as the station with the strongest drought in terms of long-term trend. The stations where there is no change in climatic conditions are Karapınar, Cihanbeyli, Ilgın and Seydişehir in the second period. This situation shows that the temperatures have increased especially in Konya and Kulu and there has been a decrease in the amount of precipitation. The decreasing trend of precipitation in these stations has been determined in previous studies (Türkeş et al., 2009b; Kızılelma et al., 2015; Akın, 2019; Sarış and Gedik, 2021).

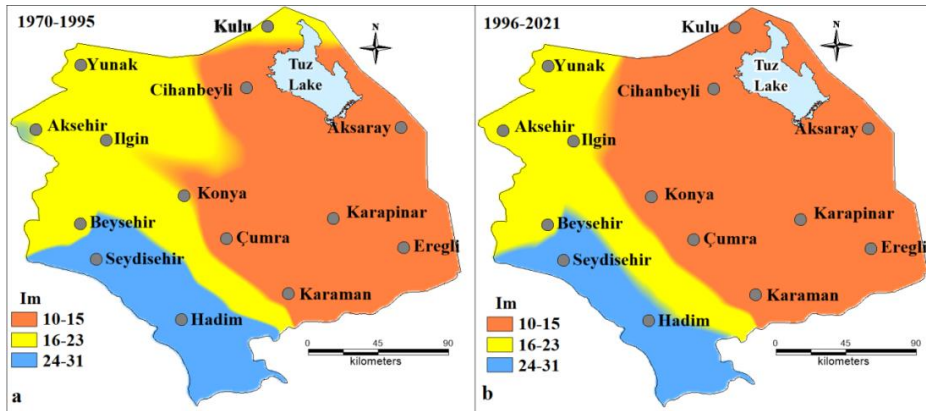


Fig. 5. (a) Spatial distribution Erinç aridity index (Im) for period 1970-1995, (b) 1996-2021.

The annual Im values of the stations for the last decade are given in Table 4. 2013, 2020 and 2021 were drier years compared to other years except for Seydişehir. Arid and semi-arid conditions occurred at all stations except for Seydişehir, Beyşehir and Hadim in 2014. Arid and semi-arid conditions occurred at all stations except for Seydişehir, Akşehir and Hadim in 2015. Arid and semi-arid conditions occurred at all stations except for Seydişehir and Yunak in 2016. Arid and semi-arid conditions occurred at all stations except for Seydişehir, Beyşehir and Hadim in 2017, 2018 (Akşehir can be included) and 2019. Dry conditions similar to 2013 occurred in 2020 and 2021. In these years, arid and semi-arid conditions occurred at all stations except Seydişehir. As seen in Table 4, no humid conditions have occurred in the last decade in the sub-region.

Table 4. Annual Erinç Aridity Index (Im) values for last decade (2012-2021).

Station	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Konya	15	9	20	15	11	13	15	15	10	11
Karaman	12	8	17	11	17	13	14	18	10	9
Karapınar	11	8	11	10	11	14	15	16	9	9
Ereğli	14	10	13	13	12	10	12	11	8	9
Cihanbeyli	13	8	16	17	10	10	15	11	10	10
Aksaray	17	10	13	15	13	11	16	11	13	10
Kulu	15	9	16	17	14	13	18	13	11	13
Ilgın	13	13	21	17	16	14	16	17	16	13
Seydişehir	37	24	36	28	27	34	29	29	23	23
Çumra	10	8	15	10	11	14	17	14	8	9
Beyşehir	28	17	23	19	19	25	20	23	17	19
Hadım	29	13	28	23	24	28	29	31	17	25
Yunak	18	9	18	20	11	17	19	13	18	11
Akşehir	18	15	19	24	16	19	26	17	18	16
Explanation	Arid	Semi-arid	Semi-humid	Humid	Perhumid					

4.3. Percentage of normal index (PNI)

The annual PNI values of the stations for the last decade are given in Table 5. As shown, 2013 was a drier year compared to other years except for Konya, Ereğli and Beyşehir. While normal conditions prevailed at Konya, Ereğli and Beyşehir in this year, dry conditions prevailed in other settlements. Extreme drought conditions occurred in 2013 at Kulu, Yunak and Hadım. Severe drought conditions occurred at Karaman, Cihanbeyli, Çumra and Akşehir. In 2012 and 2015, moderate drought conditions occurred at Ilgın, Çumra and Hadım, respectively, normal conditions occurred at other stations. In 2016 and 2019, moderate drought and severe conditions were occurred at Akşehir and Yunak, respectively. In 2017, moderate drought condition prevailed only at Cihanbeyli, normal conditions occurred at other stations. Normal conditions were dominant over sub-region in 2014 and 2018. In 2020, extreme condition occurred only at the Hadım station, severe drought condition occurred at Kulu and Çumra. Moderate drought condition occurred at Konya, Karaman, Karapınar, Ereğli, Cihanbeyli and Seydişehir. Normal condition occurred at Aksaray, Ilgın, Beyşehir, Yunak and Akşehir. In 2021, moderate drought condition occurred at seven stations, Karaman, Cihanbeyli, Aksaray, Ilgın, Seydişehir, Çumra and Akşehir. Severe drought was observed only at the Yunak station. Normal conditions were dominant at other stations.

Table 5. Annual PNI values (%) for last decade (2012-2021).

Station	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Konya	116	93	162	115	88	96	116	112	77	94
Karaman	91	66	139	87	137	106	113	144	83	76
Karapınar	96	78	109	89	106	125	135	145	84	89
Ereğli	125	92	118	114	114	91	104	96	71	87
Cihanbeyli	102	65	136	139	86	84	119	86	80	83
Aksaray	128	80	106	114	104	89	127	87	104	80
Kulu	98	58	109	109	94	86	120	87	74	89
Ilgın	79	83	130	101	101	89	100	102	97	81
Seydişehir	124	84	125	93	96	111	95	99	79	80
Çumra	78	64	129	77	90	118	139	115	67	77
Beyşehir	134	87	116	95	101	121	100	113	88	95
Hadım	102	48	104	83	93	104	103	110	62	93
Yunak	99	51	102	110	67	94	105	70	104	68
Akşehir	88	74	93	112	81	89	125	84	89	83
Explanation	Normal	Moderate		Severe		Extreme				
	no risk	drought	(watch)	drought	(warning)	drought	(emergency)			

The winter PNI values of the stations for the last decade are given in Table 6. As shown, normal conditions were dominant over sub-region in 2012, 2016, 2018, 2019 and 2021. Extreme drought condition occurred in 2013 at Çumra and Hadım. Severe drought condition occurred at Karaman, Yunak and Karapınar. In 2014, extreme and severe drought conditions occurred only at Akşehir and Ilgın, respectively. Moderate drought condition occurred at Ereğli and Yunak. Normal condition occurred at other stations. In 2015, extreme drought condition occurred at Kulu and Hadım. Severe drought condition occurred at Karaman, Karapınar and Çumra. Normal condition occurred at other stations. Contrary to annual PNI values, winter PNI values for 2017 are lower. 2017 was the driest year of the last decade. Extreme and severe drought conditions occurred at six stations (Konya, Karapınar, Ereğli, Cihanbeyli, Aksaray and Kulu) and three stations (Karaman, Çumra and Hadım), respectively. Normal condition occurred only at three stations (Ilgın, Seydişehir, Beyşehir and Akşehir). In 2018 and 2021, normal condition was dominant in the sub-region. In 2020, severe and moderate drought conditions occurred only at Kulu and Hadım, respectively. Normal condition occurred at other stations.

Table 6. The winter PNI values (%) for last decade (2012-2021).

Station	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Konya	179	78	152	89	127	46	134	147	91	119
Karaman	130	57	122	63	180	60	121	185	117	122
Karapınar	140	63	97	60	151	31	176	238	133	158
Ereğli	158	69	67	69	185	40	143	163	86	107
Cihanbeyli	170	66	94	63	108	37	128	97	80	85
Aksaray	203	97	93	80	131	48	156	132	94	127
Kulu	178	76	84	60	131	35	107	102	60	80
Ilgın	137	89	62	75	98	90	110	172	110	101
Seydişehir	177	86	117	85	96	90	82	131	103	76
Çumra	119	51	120	59	122	56	157	173	95	109
Beyşehir	206	99	114	75	99	79	84	145	121	90
Hadım	134	33	84	50	114	63	103	159	71	102
Yunak	170	64	69	76	94	68	136	94	99	101
Akşehir	125	78	46	88	107	85	112	123	83	110
Explanation	Normal no risk	Moderate drought	(watch)	Severe drought	(warning)	Extreme drought	(emergency)			

The spring PNI values of the stations for the last decade are given in Table 7. As shown, extreme drought condition occurred in 2012 at Karapınar and Çumra. Severe drought condition occurred at Karaman, Kulu, Ilgın and Akşehir. Moderate drought occurred at Cihanbeyli and Aksaray. Normal conditions were dominant at other stations. In 2013, extreme drought condition occurred at Kulu and Yunak. Severe drought condition occurred only at Akşehir. Moderate drought occurred at Beyşehir and Hadım. Normal condition occurred at other stations. In 2014, severe and moderate drought conditions occurred at two stations (Çumra and Hadım) and three stations (Karapınar, Ereğli and Aksaray), respectively. In 2015 and 2018, normal conditions were dominant over sub-region. In 2016, extreme and severe drought conditions occurred at Çumra and Karaman, respectively. Normal conditions were dominant at other stations. In 2017, moderate drought occurred only at Ilgın. Normal conditions were dominant at other stations. In 2019, extreme and severe drought conditions occurred over sub-region and at five (Cihanbeyli, Aksaray, Kulu, Ilgın and Yunak) and three stations (Çumra, Hadım and Akşehir), respectively. In 2020, severe and moderate drought conditions occurred only at Çumra and Karapınar, respectively. In 2021, extreme and severe drought conditions occurred at three stations, Karaman, Karapınar and Aksaray, and Ereğli, Yunak and Akşehir, respectively. Kulu and Çumra were affected by moderate drought condition.

Table 7. The spring PNI values (%) for last decade (2012-2021).

Station	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Konya	79	109	83	133	84	136	79	71	89	80
Karaman	61	105	106	79	57	162	82	93	75	53
Karapınar	49	114	74	117	80	176	106	98	74	52
Ereğli	92	155	72	145	88	148	81	65	79	58
Cihanbeyli	65	77	81	123	99	101	153	41	104	87
Aksaray	68	79	74	106	107	84	127	39	132	48
Kulu	62	51	94	103	111	119	165	37	106	71
Ilgın	58	90	93	137	118	68	77	53	110	81
Seydişehir	113	80	90	117	129	114	93	76	84	112
Çumra	38	86	61	83	51	204	111	64	61	66
Beyşehir	88	74	89	111	128	140	89	72	93	79
Hadim	75	67	55	109	103	167	75	59	82	89
Yunak	79	31	89	131	89	108	78	45	124	59
Akşehir	62	59	77	136	89	81	156	62	99	61
Explanation	Normal no risk	Moderate drought	(watch)	Severe drought	(warning)	Extreme drought	(emergency)			

The summer PNI values of the stations for the last decade are given in Table 8. As shown, extreme and severe drought conditions occurred over sub-region in 2012 and 2013. Normal condition was dominant in 2014, 2015 and 2019. In 2016, extreme and severe drought conditions occurred at four stations (Kulu, Yunak and Akşehir) and one station (Aksaray), respectively. Moderate drought condition was dominant at Cihanbeyli and Hadim. Normal conditions were dominant at other stations. In 2017, extreme and moderate drought conditions occurred only at Çumra and Ereğli, respectively. Normal conditions were dominant at other stations. In 2018, moderate drought condition occurred at Karaman and Yunak. In 2020, extreme and severe drought conditions occurred at three stations, Karapınar, Ereğli and Hadim and, Konya, Seydişehir and Çumra, respectively. Moderate drought condition was dominant only at Ilgın. In 2021, extreme, severe and moderate drought conditions were dominant at two stations (Hadim and Yunak) and only at Çumra, and Karaman, respectively.

Table 8. The summer PNI values (%) for last decade (2012-2021).

Station	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Konya	88	25	114	199	51	105	233	228	61	145
Karaman	28	45	95	142	275	90	66	264	83	74
Karapınar	71	68	119	132	138	201	94	98	20	80
Ereğli	41	50	123	198	78	67	86	80	25	119
Cihanbeyli	61	26	184	433	74	134	113	224	93	112
Aksaray	58	28	146	367	64	142	117	159	104	102
Kulu	20	48	119	276	27	105	99	234	90	135
Ilgın	30	69	226	182	157	139	174	175	71	79
Seydişehir	51	25	183	107	120	158	91	137	56	138
Çumra	9	60	115	158	166	55	256	159	57	58
Beyşehir	80	46	169	193	138	178	131	247	82	265
Hadım	48	20	298	248	70	98	98	156	36	34
Yunak	25	64	143	207	2	139	66	107	112	49
Akşehir	67	41	128	220	44	169	158	132	94	97
Explanation	Normal	Moderate	Severe		Extreme					
	no risk	drought	(watch)	drought	(warning)	drought	(emergency)			

The autumn PNI values of the stations for the last decade are given in Table 9. As shown, normal condition was dominant in 2012. Extreme and severe were dominant only at Seydişehir and Ilgın, respectively. In 2013, extreme, severe and moderate drought conditions occurred at five stations (Konya, Karaman, Karapınar, Ereğli and Kulu), two stations (Çumra and Yunak) and three stations (Cihanbeyli, Ilgın and Hadım), respectively. Normal condition was dominant in 2014, 2017 and 2018. In 2015, extreme, severe and moderate drought conditions occurred at four stations (Aksaray, Ilgın, Yunak and Akşehir), one station (Çumra) and three stations (Karapınar, Beyşehir and Hadım), respectively. Extreme and severe drought conditions prevailed in the sub-region in 2016, 2019, 2020 and 2021. In 2016, normal condition was dominant only at Karaman. Extreme and severe drought conditions were dominant six stations (Cihanbeyli, Ilgın, Seydişehir, Hadım and Yunak) and four stations (Konya, Karapınar, Kulu and Beyşehir), respectively. Moderate condition was dominant at other stations. In 2019, extreme and severe drought conditions were dominant seven stations (Cihanbeyli, Kulu, Ilgın, Seydişehir, Hadım, Yunak and Akşehir) and four stations (Konya, Ereğli, Aksaray and Beyşehir), respectively. Normal conditions were dominant at other stations. In 2020, extreme and severe drought conditions were dominant eight stations (Konya, Karaman, Cihanbeyli, Kulu, Seydişehir, Çumra, Beyşehir and Hadım) and three stations (Karapınar, Ereğli and Aksaray), respectively. Moderate and normal conditions were dominant only at Yunak and Akşehir. Similar drought conditions in 2020 also occurred in 2021.

The remarkable point is that extreme and severe drought conditions have occurred in the last decade at stations such as Hadım, Seydişehir and Akşehir

with a high total annual precipitation. In previous studies, including the Central Anatolia Region, trends in total and seasonal precipitation were examined. In previous studies, including the Central Anatolia Region, trends in total and seasonal precipitation were examined. According to the results of these studies, while there was a general increasing trend in extreme and average temperatures, there was a general decreasing trend in total precipitation (Türkeş et al., 2008; Efe and Özgür, 2014; Kızılelma et al., 2015; Özfidaner et al. 2016; Türkeş, 2020; Sarış and Gedik, 2021; Topuz et al., 2021).

Table 9. The autum PNI values (%) for last decade (2012-2021).

Station	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Konya	93	44	306	84	58	106	81	61	48	55
Karaman	99	32	243	112	118	109	173	92	33	32
Karapınar	118	49	182	66	57	152	138	98	58	38
Ereğli	184	40	280	79	71	84	98	59	60	90
Cihanbeyli	86	71	256	83	40	95	54	51	32	55
Aksaray	150	78	167	49	73	145	78	58	64	47
Kulu	81	50	166	88	55	103	84	46	33	102
Ilgın	62	73	214	28	40	87	67	29	79	54
Seydişehir	46	100	162	80	54	140	125	46	28	36
Çumra	97	55	246	62	67	114	103	80	36	50
Beyşehir	89	97	128	69	58	147	127	55	33	55
Hadım	80	70	143	71	43	119	136	49	26	96
Yunak	86	58	140	54	39	74	133	52	73	52
Akşehir	80	112	166	49	52	57	83	28	80	63
Explanation	Normal no risk	Moderate drought	(watch)	Severe drought	(warning)	Extreme drought	(emergency)			

5. Conclusions

In this study, the dry periods, its severity and duration of drought events of the Konya sub-region, which is located in the south of the Central Anatolian Region where semi-arid and arid climate is dominant, and includes the Tuz Lake Basin and Konya Basin, were examined and evaluated with various drought analyzes for period 1970-2021. The main findings from the analysis data are summarized below.

Precipitation variability values are above 25% in all seasons. The CV values of the summer season with the least amount of precipitation are higher than the other seasons. While CV values are low at stations (Beyşehir, Seydişehir, Ilgın and Akşehir) with high annual precipitation values, CV values are high at stations (Konya and its surrounding) with low annual precipitation values. In other words, the annual precipitation variability in the sub-region decreases from the middle to the north and south parts. Considering the fact that the precipitation variability coefficient moves away from 25% positively, also means a lack of water, Konya

and its surroundings such as Kulu, Çumra, Karapınar, Karaman, Ereğli, Cihanbeyli and Aksaray are the most vulnerable to desertification. Erinç indis values support this finding from index calculations. According to the Erinç Index results, while semi-arid climatic conditions prevail in Konya and Kulu in the first period (1970-1995) of 52 years, arid climatic conditions prevail in the second period (1996-2021). Other places where arid conditions may prevail in the future are especially the eastern part (surrounding of Tuz Lake) and of the sub-region. According to the annual PNI and Im analyses results, the driest years of the last 10 years are 2013, 2020 and 2021. The stations least affected by the drought are Seydişehir, Beyşehir, Hadim, Yunak and Akşehir. As a result, arid and semi-arid areas in the Konya sub-region are at risk of desertification. When it is considered as water-poor areas, if the necessary precautions are not taken, the agricultural sector will be affected significantly. Considering that precipitation occurs especially in winter and spring seasons, it should be taken into account that reductions in these periods will significantly reduce the recharge of groundwater.

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Chapter 3

Understanding the Impact of Administrative Culture on Sustainable Development: The Case of the Philippines

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1. Introduction: The Relationship Between Political Development and Economic Development

Today, democratization and good governance are admitted as two indispensable elements of political development. They are also the preconditions for economic development along with the rule of law enforcement, respect for property rights, human rights, and the development of civil society. Generally, economic development is seen as the catalyst of political development through the spread of literacy, the rise of plural interest groups, the accumulation of independent financial power, and economic strength in society. Political development is neither linear nor irreversible (Burnell et al., 2017). Amartya Sen argues that freedom and development are inextricable. You have to be free to develop and develop to be free. Sen notably observes that no democracy has ever known a famine (Ash, 2005, 143). As the relationship between economic and political development is clear, today, the poverty reduction framework is based on three pillars of pro-poor economic growth, social development, and good governance in the strategies of donor institutions (Schelzig, 2005).

The countries need to take the lead and initiative in developing their strategies if they are to be enduring. There is a need for high-level government and influential institutions' commitment on a long-term basis. A sustainable development strategy should be built on what already exists in the country. Broad participation paves the way for debates and new ideas. Therefore, there is a need for good communication among the central government, decentralized authorities, the private sector, and civil society. Strategies should be two-way iterative processes within and between national and decentralized levels. Legislative changes, and international affairs are set up at the central level while detailed planning, implementation, and monitoring are undertaken at a decentralized level. And finally, it is crucial to know and assess the political, institutional, human, scientific, and financial capacity of the market, state, and civil society (OECD, 2001).

During the 20th century, protectionist economic models like the one of the Philippines in the 1960s were still paving the way for economic development. But, the 21st century, also known as the Internet age, dramatically transformed societies. Even the people at the grassroots level are aware of changes in other regions or countries, and they have the chance to compare the events elsewhere with the ones in their own country. An increasing number of Multinational firms, transnational organizations, and the growing role of NGOs changed the world drastically. Therefore, a global common understanding encompassing democracy, human rights, and the rule of law, and even though there are still some exceptions, a liberal economy became the standard for achieving economic

development. “Being strong in local and global” is the key to the success of the countries today. Therefore, efforts of decentralization and competitiveness became crucial for national development. From this perspective, this paper analyzes how the administrative culture affects the development efforts in the Philippines.

2. Administrative Background of Institutional Problems

The Philippine administrative system developed and took shape under the tutelage of colonial rulers. Over three hundred years of Spanish colonialism, approximately four decades of American rule, and about three years of Japanese occupation have influenced the Filipino administrative system (Reyes, 2011: 31). Today, the Philippine system is a copy of the American Administrative model. But many Filipino Scholars argue that it is a bad copy and causes problems.

The main problem in the Philippines is the inefficiency of institutions. Until the late 1960s, the per capita income and literacy rate in the Philippines was higher than in most Asian countries. But income inequalities and some political dynasties began to create disorder in society. Decaying Democratic institutions was an alibi for Ferdinand Marcos to declare Martial law in 1972 as he wanted to get rid of political elites. But policies of Marcos were more destructive as he weakened institutions instead of rehabilitating them. Hence, he was called the institution wrecker. The merit-based appointment was replaced by patronage. Therefore, the economy also collapsed under the authoritarian regime. As a result, in the 1980s, the Philippines became the sick man of Asia (Root, 1996: 113-138).

Especially during the Marcos presidency, with the declaration of Martial law in 1972 and the new constitution in the following year, existing legislative, executive, and judiciary institutions were weakened. The objective was to end the political elites’ influence in the name of technocracy and social equity; thus, providing economic development. But Marcos never tried to install new institutions to sustain the new regime’s political sustainability. The Marcos regime ended after the EDSA uprising in 1986 with the help of some political elites previously close to Marcos.

People’s happiness and well-being are above everything, so people have the right to abolish the government when it becomes destructive. This power is above the constitution and can be exercised as a last recourse to achieve well-being. EDSA I and EDSA II uprisings in the Philippines were rationalized within this perspective (Laurel, 2001). It is clear that it is not a desirable way, and it is much better to stop undesirable developments before causing such upheavals. Well-established institutions and a functioning checks and balances system are required to achieve such a purpose.

After the EDSA I uprising in 1986, Corazon Aquino observed the legitimacy problem and changed the 1973 Martial law. So, a new Constitution was promulgated in 1987. But in the Philippines, the Aquino government made a mistake. Dismantling the structures and gains of the old regime became an obsession. Most civil servants, from governors to barangay captains¹, were eventually replaced by Aquino supporters. Important bureaus like the Bureau of Internal Revenue, National Housing Authority, and Bureau of Customs were manned by *Coryistas* (Corazon Aquino supporters). Big companies were reorganized to accommodate the Aquino men in senior positions (Tan, 1987: 96-97). As the Aquino government could not heal the ailing economy and problems such as corruption which exacerbated economic difficulties, it experienced some military coup attempts and loss of public support.

2.1. Corruption as a disease for institutions

Corruption is the use of public power for private gains and benefits. However, it cannot be handled as merely a personal problem (Antonio, 2007:14-15). Statistics indicate that the level of corruption decreases with economic prosperity. From the political perspective, when the power is legitimate, corruption diminishes. This situation shows the importance of a checks and balances system. But, for example, after the end of communism, corruption increased drastically in ex-Soviet countries during the transition period because of weakened political institutions (Amundsen, 1999, 17-18). Therefore, strong institutions are the key to stopping it.

Corruption is prevalent if there is limited accountability and little transparency in governmental operations, and civil society institutions and an independent private sector are weak or undeveloped. It alters its character based on changing socioeconomic, cultural, and political factors (Quah, 2004:61).

Corruption in the Philippines is a deep-rooted and old social problem. Low salaries, poor working conditions of the bureaucrats, and opportunities available for corrupt behavior were the characteristics of Spanish colonial rule. The Americans replaced the Spanish colonial rule in 1898, and the bureaucracy became cleaner during this period owing to higher salaries and the prosecution of corrupt civil servants. However, the bureaucracy in the country suffered from “low prestige, incompetence, meager resources, and a large measure of cynical corruption” after World War II (Quah, 2004: 62-63). In the Philippines, as the detection and punishment of corrupt activities are problematic, people perceive corruption as a low-risk, high-income activity (Quah, 2003: 243). Corruption can

¹ Barangay is the smallest administrative unit in the Philippines.

be depicted as a disease or cancer harming the organs-i.e. institutions-in society; thus, it hampers the development of the country. The Philippines' rate on Corruption Perception Index was 2.4 /10 in 2010 (Transparency International, 2011). It slightly increased to 33 / 100 in 2021 (Transparency International, 2022).

Many phenomena affecting society have both political and economic aspects. For example, corruption is such a phenomenon. It negatively affects the economy as it causes the loss of resources, but corruption is a systematic problem. Therefore, the solution is to establish better political systems and achieve political development. This fact is often pointed out in speeches of politicians in the Philippines. In her inauguration speech in 2001, Gloria Macapagal Arroyo, the 14th president of the country and daughter of the 6th president Diosdado Macapagal, stressed this fact with those remarks:

“To ensure that our gains are not dissipated through corruption, we must improve moral standards. As we do so, we create fertile ground for good governance based on a sound moral foundation.”²

Corruption was also an issue of priority for her successor Benigno C. (Noynoy) Aquino. In his first State of the Nation Address (SONA) in July 2010, President Aquino called the media to watch closely the government acts to assist it finding the right way. He pointed out the importance of the partnership between the government and the private sector to alleviate the "burdens" of the country. But the roots of corruption in the Philippines date back to the Spanish colonial period. The *Gobernadorcillo*, the highest ranked Filipino officer and the head of *pueblo* (town), was both an executive and judicial officer. His duties were extensive. He was also in charge of the collection of taxes for Spanish rulers. The reward for gobernadorcillo's services included a salary and a share of one and a half percent of the tribute collection. But his monetary compensation was inadequate to cover the service demands of the townspeople. He was supposed to remit the tax collections to the treasury and shoulder all expenses of the pueblo. The consequence was predictable (Endriga, 1985: 137-138).

2.2. Competitiveness Problem in Global Age

Even Before the 1997 Asian Financial Crisis, the economy of the Philippines was growing slower than in other regional countries, foreign investments were too low, and inflation was much higher than in the other Asian countries. Import substitution policies were not adequate to heal the ailing economy. Today China,

² However, she was later arrested under charges of electoral sabotage in 2011 and rearrested on charges of misuse of state funds but released for lack of evidence.

Vietnam, and Indonesia have a comparative advantage in unskilled labor production as the Philippines has relatively high-cost labor. However, the Philippines has a comparative advantage regarding semi-skilled labor manufacturing owing to its English language-based educational system. But this advantage seems temporary unless the investment in human capital continues (Abinales & Amoroso, 2005: 247).

The competitiveness problem of the country dates back to the Marcos regime. The main objective of Ferdinand Marcos was to thwart oligarchs and to establish a technocratic system for achieving constant economic growth. Marcos appointed Western-Educated economists without political motivations, but he did not save them well enough from external partisan meddling. Even Imelda Marcos, the president's spouse, intervened in some crucial decisions. Despite those problems, Marcos kept them to protect good relations with international financial institutions like IMF and World Bank. IMF and World Bank provided a large amount of credit thanks to the efforts of technocrats. But the main problem was the misuse of those credits. The Philippines invested in the wrong areas, like capital-intensive industries, instead of using its comparative labor advantage and grew less than its neighbors (Root, 1996: 114-138).

The strange story of the Bataan Nuclear plant gives a clue about the background of current economic problems. One of the main obstacles to economic development in the Philippines is the energy prices. The construction of the country's only nuclear power plant began in 1976 and was completed many years ago, but it is still out of service due to security concerns. The plant was built on a fault line during Marcos' presidency, a close American friend of the past American administrations until his overthrow by the EDSA uprising in 1986. One should not have any objection to such an argument considering the high cost of natural disasters like the one in the Fukushima nuclear plant in Japan. But, the question of how international institutions couldn't notice such a big mistake is still lingering. Until his overthrow, international organizations like IMF and World Bank funded the Marcos regime without controlling its extravagant expenses, allegedly due to American military bases in the country. After the end of the Marcos regime, foreign debts became the primary problem. But the subsequent Philippine administrations never tried to evade the payments of debts even though they had the opportunity to do such an action based on the doctrine of Odious Debt.³ One cannot neglect the destructive indirect effects of this affair

³ The Odious Debt doctrine derives from the belief that debt incurred by a dictator for nefarious purposes should be considered illegitimate. For more detail, see the Brookings Institute paper <https://www.brookings.edu/articles/odious-debt-when-dictators-borrow-who-repays-the-loan/> (accessed Sept. 22, 2022).

as the country desperately needs foreign investments, and one of the principal considerations of foreign investors in their evaluation is energy prices.

2.3. The Unbearable Cost of Unfair Trade

Relations among markets and government are mutual. One needs markets to limit the state's destructive policies. However, there is also a need for the state to rightly regulate markets from damaging the public good by limiting mainly multinationals' power and profits when it is necessary (Skidelsky, 2010). But does such a policy harm free trade? Most developed countries call for free trade and they do not hesitate to impose it to open up the markets of developing or under-developed countries, which protect their market with tariffs, anti-dumping and special regulations. According to the World Bank calculations, the annual cost of these trade barriers for developing countries was at least \$100 billion at the beginning of the millennium (Ash, 2005: 169).

Over last decades of trade liberalization, The Philippines drastically reduced the effective rate of protection for manufacturing. Although the consumers benefited from tariff cuts, many industries collapsed in the country (Abinales & Amoroso, 2005: 248).

3. Efforts to Fix the Problems

On the other hand, some political practices may facilitate and promote the implementation of leaders' economic programs. The SONA (State of the Nation Address) is a prolific tool for presidents to share first-hand info regarding the general situation of the economy and other vital issues. In the past, among the previous presidents, Diosdado Macapagal used it to promote decontrol and free trade policy, whereas Fidel Ramos used it to promote the Philippines 2000 plan (De Vera, 2005).

Besides, many of the national problems have their roots in local activities. Local authorities construct, operate, and maintain economic, social, and environmental infrastructure; oversee planning processes; assist in implementing national and sub-national environment policies, etc. The lack of thereof causes problems.

The Philippines was negatively affected by heavy centralization for a long time. Since the Spanish colonial rule, extreme centralization has been a problem for the country. "Imperial Manila" expression used for centuries for the capital city was a sign of the level of centralization in the Philippines. After many unsuccessful and unfruitful regulations, in 1991, the Philippine Congress enacted the Local Government Code to transform the nature of power relations among central government and local governments (Brillantes, 2005: 272-273).

4. Victims and Heroes of the Philippine Economy: The Story of Overseas Filipino Workers

The title of the 2011 hit song in the Philippines was *Walang Natira* (There is nothing left behind) which is an emotional song dedicated to the millions of Overseas Filipino Workers (OFWs hereafter) leaving their country with the hope of a better life. OFWs' main contribution to the Philippines is their positive effect on the employment rate. That is to say, millions of the nation's workforce, who would otherwise blow up the unemployment rate, found work at their own expense outside the national economy, yet consumed their earnings within the national economy (Abinales & Amoroso, 2005: 298-299).⁴

At the beginning of the Iraq war, the U.S. and the Philippines experienced a political crisis regarding an OFW. The Philippines sent a small contingent to Iraq in June 2003. But after the abduction of a Filipino truck driver named Angelo De la Cruz, kidnappers demanded the withdrawal of the Filipino contingent. Afterward, Philippine troops left Iraq in July 2004. Even though the contingent was not so big, the Bush administration reacted harshly to the decision of the Philippine government. Because there was pressure on the U.S. administration regarding the legitimacy of the invasion as it was revealed that American intelligence regarding the chemical arsenals of Iraq was wrong. After the hostage crisis, Washington harshly criticized Manila (Abinales & Quimpo, 2008: 36-37). Philippine media generally supported the withdrawal decision. It emphasized that the life of the Filipino workers was more important as they were the victims of the socio-economic difficulties within the country, that's why they leave the country to work abroad, so it is not fair to make them a victim again in a foreign country (Abinales & Amoroso, 2005: 300).

In the said period, the Bush administration's patronizing approach towards other countries struggling with terrorism and its demands from those countries created some problems. According to U.S. legislation, U.S. courts have extraterritorial jurisdiction if a U.S. citizen is a victim or U.S. interests are in danger because of the terror. So, if an American citizen is the target of terrorism in a foreign country, American courts may intervene in the subject regardless of that country's judicial authority. The logic of this legislation is to protect American citizens, but what if the other countries do the same things? For example, what would be the U.S. administration's reaction if a Philippine Court

⁴ According to the Bangko Sentral ng Pilipinas (BSP) data, In 2003, the remittances of OFWs had reached \$8 billion, and in 2010 reached nearly \$18 billion. In 2021 it was above \$31 billion despite the Covid pandemic. See Tuaño-Amador et al. (2022). Family relations positively affect the OFWs' remittances. For further info regarding Filipino society see Jocano (1999).

claims jurisdiction over a terrorist attack committed by an American citizen in which a Filipino worker died on U.S. soil (Pillar, 2010)?

Actually, one can observe the U.S. impact even with a small city tour in the capital Manila. Taft Avenue, MacArthur Highway⁵, and statues depicting American soldiers side by side with Filipinos give a clue about the American mandate's impacts. On the other hand, The current strategic importance of the Philippines to the U.S. seems less compared to the Cold War era. Former president Bill Clinton visited the Philippines for a conference in Manila in 2010, and delivered an inspiring speech (Pamintuan, 2010). However, bodyguards of Clinton and then vice-president Jojo Binay argued in a protocol row as bodyguards did not recognize the vice-president. Likewise, in his first visit to the U.S. in 1910, then-president Benigno (Noyonoy) Aquino experienced a minor protocol crisis with a Philippine flag hanged upside-down, a practice only during the war period (Daily mail, 2010)). There is no indication that these protocol mistakes were intentional, and the Philippine media and governments' assessment was so. There were even jokes in newspapers about being at war against the U.S. Nonetheless, these incidents give a clue regarding the nature of relations.

5. Discussion and Conclusion

Institutions should be strengthened to fix social and economic problems. Parliaments can reduce corruption through their power of legislation. The role of parliament members in general and opposition party members, in particular, is to monitor and control the government, and the administration, to criticize and make suggestions, and to inform the general public. The political parties are another part of this control mechanism, but in the Philippines, these are problematic. The frequent transfer of parliament members among the parties negatively affects the Philippine Congress' use of its control power.

Another significant factor is the presidential leadership. For a successful anti-corruption strategy, the political and managerial will is non-negotiable. The political will, required for successful reforms to establish strong institutions, has long been lacking in the country, for several reasons mentioned in this paper.

Today, familiar names are on the scene again in Philippine politics. The incumbent president Ferdinand "Bongbong" Romualdez Marcos is the son of former president Ferdinand Marcos ousted by the EDSA uprising in 1986, and vice president Sara Duterte is the daughter of the previous president, Rodrigo Duterte. Thus, there are strong criticisms derived from the fears of the political

⁵ William Howard Taft was the 27th President of the U.S. In 1900, he was the governor-general of the Philippines. Douglas MacArthur was an American general and field Marshall of the Philippine Army.

dynasty tradition and the dictatorship experience of the Philippines (Lema & Allard 2022).

However, this can still be a chance for the Philippines as they are the living and most important witnesses of the recent political past. Time will tell whether they will act vindictively and weaken what has remained from institutions or correct the criticized policies of their fathers, who were in power before them, and create strong institutions for a bright future for their country.

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Chapter 4

The Nexus Between High Technology Exports, Trade Openness And Growth In Turkey: Evidence From Var Analysis

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1. Introduction

The knowledge economy that developed in the last quarter of the 20th century creates a complex agenda for the future. In addition to the fact that knowledge is now seen as the most important production factor, sharing knowledge is important in terms of increasing the current stock of knowledge both in the region and in the economy. Since the increase in the distance between the actors sharing the information will reduce the level of interaction, geographical proximity discussions are included in the literature. Therefore, economic activities are becoming knowledge-based; global competition is also increasing with the formation of integrations and liberalization in world trade. In this context, global competition and trade are shaped around information-oriented products.

Traditional theories in international trade perceive trade as countries benefiting from comparative advantage, but for nearly half a century, trade reflects R&D activities and leadership shifts in the near-technology race. Now the effect of exports on growth is greater than the change in volume. Economies of scale, increased capacity utilization, productivity gains, product diversity, etc. have indirect effects. However, the sustainability of technological development in national economies, productivity gains in management procedures as well as in production, etc. can cause competitive pressures. All these aspects have been suggested in the literature for more than forty years. Grossman and Helpman (1991) put a special emphasis on trade to promote innovation and facilitate the international transfer of technology and knowledge. For this reason, both the qualitative distinction between exporting sectors and domestic production sectors, as well as the contribution of technology and productivity, are based on the literature in terms of their impact on economic growth.

In general terms, societies that produce knowledge and use it effectively in economic activities have a developed economy. In addition, growth in national economies is of great importance for all countries, regardless of their level of development. The level of information-technology and technological change are among the main determinants of growth; a linkage is established between an increase in foreign trade/exports and productivity/economic growth. In other words, due to the higher added value in information-intensive goods, the trade of these goods is important for the welfare and competitiveness of the country. Especially since the 1960s, the promotion of exports has played a central role in the development strategy of many countries, and this relationship is behind the countries' adoption of export-led growth (Bernard and Jensen, 2004; Kızılkaya, Sofuoğlu and Ay, 2017; Madsen, 2009). At this point, Feder (1983), one of the first empirical studies emphasizing the relationship between export composition and growth, claims that the allocation of existing resources to the highly

productive export sector will create growth. In this direction, when the empirical literature is examined, studies focusing on the links between innovation, high-tech exports and economic growth, as well as the reflections of export growth on economic growth, are observed (Eaton and Kortum 2001; Zhang 2007; Spulber 2008; Falk 2009; Usman, 2017; Yıldız and Adıyaman, 2017; Yang, 2017; Demir, 2018; Canbay, 2020, Şahin and Şahin, 2021). In addition, the relationship between high-tech exports and trade openness is also very important. Producers import innovation-based intermediate goods in the absence of domestic production. In this case, trade openness in the country increases competition and the high level of competition increases the productivity, efficiency and innovation capacity of even monopoly-type domestic producers. All of these affect the growth potential of the country. Among the main determinants of high-tech exports in the literature, factors such as trade openness, growth, innovation, number of patents, human capital, and foreign direct investments stand out (Tebaldi, 2011; Gökmen and Türen, 2013; Güneş and Akın, 2019; Erdiñç and Aydınbaş, 2020; Güneş et.al., 2020, Akay, 2021). Similarly, studies examining the relationship between trade openness and economic growth are also included in the literature (Anoruo and Ahmad, 1999; Liu, Song and Romilly, 2006, Tsen, 2006, Madsen, 2009). However, there is no clarity about the direction of the relationships stated in the studies.

For this reason, it is aimed to specifically examine the nexus high-tech exports, trade openness and growth for the period 1996-2019 in Turkey. In this context, The relationship between the series is examined by Johansen cointegration analysis and the direction of the relationship is revealed by VAR causality analysis based on Granger Causality. And this results are strengthened variance decomposition and impulse-response analyses.

2. Research Goal

This study aims to examined the nexus high-tech exports, trade openness and economic growth for the period 1996-2019 in Turkey. For this purpose, the relationship between the series is examined by Johansen cointegration analysis and the direction of the relationship is revealed by VAR causality analysis based on Granger Causality. And this results are strengthened variance decomposition and impulse-response analyses.

3. Sample and Data Collection

The analysis is conducted on high-tech exports, economic growth and trade openness. All of the data are sourced from World Development Indicators (World Bank) for the 1996-2019 period.

Table 2. Definition of Variables

Variables	Definition	Source
htechex	High-tech exports (% of manufactured exports)	World Bank
gdp	GDP Growth rate	World Bank
open	Trade (% of GDP)	World Bank

This study shapes around three main stages. First of all, the stationarity of the variable is determined by using unit root tests. Then, relationship between the variables is examined using the Johansen cointegration test and VAR granger causality test.

4. Analysis Results

Since each of the unit root tests has separate features, more than one unit root test is often used for a time series in practice. The unit root tests have used in the study are the Phillips-Perron (PP) and Extended Dickey-Fuller (ADF) tests, which are the most widely used in the literature. In these tests, "the series contain unit root" is tested with the null hypothesis. ADF and PP test results in level and first differences are shown in Table 4 and 5. H_0 hypothesis is accepted in both series. The series contains a unit root according to both ADF and PP test results at level. When the first differences of the series are taken, the series become stationary according to both ADF and PP analyses, so the ADF and PP test results support each other.

Table 4. Unit Root Tests (at level)

Variables		ADF		PP	
		t-stat.	Probability	t-stat.	Probability
htechex	Intercept	-2.2063	0.2094	-2.2063	0.2094
	Trend and intercept	-2.1285	0.5041	-2.1285	0.5041
	None	-0.2889	0.5707	-0.3787	0.5366
gdp	Intercept	-1.1606	0.6730	-1.1742	0.6673
	Trend and intercept	-0.7135	0.9597	-1.0644	0.9136
	None	1.5377	0.9652	1.3174	0.9478
open	Intercept	-1.5403	0.4958	-1.5348	0.4985
	Trend and intercept	-3.0450	0.1422	-2.6508	0.2635
	None	0.4004	0.7909	1.1022	0.9244

Table 5: Unit Root Tests (at first differences) I(1)

Variables		ADF		PP	
		t-stat.	Probability	t-stat.	Probability
hteche	Intercept	-3.7314	0.0109	-3.6758	0.0123
	Trend and intercept	-3.6238	0.0509	-3.5118	0.0628
	None	-3.8164	0.0006	-3.8057	0.0006
gdp	Intercept	-3.7166	0.0112	-3.7080	0.0114
	Trend and intercept	-3.7833	0.0375	-3.7752	0.0380
	None	-3.4839	0.0013	-3.4575	0.0014
open	Intercept	-4.9213	0.0008	-5.1174	0.0005
	Trend and intercept	-5.6963	0.0008	-5.8699	0.0005
	None	-5.0187	0.0000	-5.1899	0.0000

Table 5 indicates that the series is integrated at the I(1) level and all of the variables contain unit root I(1). Another important indicator is the lag length. Table 6 shows the lag-length selection.

Table 6: Lag-Length Selection

Lag	Log L	LR	FPE	AIC	SC	HQ
0	-	NA	4.352382	9.984104	10.13346	10.01326
1	-	80.69953*	0.070169	5.840384	6.437823*	5.957010
2	-	15.55384	0.056301*	5.543934*	6.589453	5.748031*
3	-	8.014416	0.076131	5.642493	7.136091	5.934059
4	-	3.726251	0.173483	6.010171	7.951849	6.389207

*Indicates lag order selected by the criterion.

When Table 6 is examined, the optimal lag-length in the model is one according to SC and LR and two according to AIC, FPE, HQ. The lag lengths were determined 2 by considering the AIC, FPE and HQ criteria.

The fact that all variables are stationary at their first difference allows it to be investigated whether there is a long-term relationship between the variables. In this study, Johansen (cointegration) test is applied to determine whether there is a long-term relationship between the variables. The Johansen cointegration test

is considered powerful in detecting more than one cointegration relationship between the series when there is more than one explanatory variable. The test is based on the vector autoregression (VAR) analysis developed by Sims (1980), in which each variable in the model includes both itself and its lagged values (Sims, 1980).

Table 7: Johansen Cointegration Test Results

Trace				
Hypothesized	Eigen-value	Trace Stat.	0.05 Critical Value	Prob.
None	0.561085	25.73228	29.79707	0.1369
At Most 1	0.267123	8.439833	15.49771	0.4296
At Most 2	0.087092	1.913513	3.841465	0.1666
Max-Eigenvalue				
Hypothesized	Eigen-value	Max-Eigenvalue Stat.	0.05 Critical Value	Prob.
None	0.561085	17.29245	21.13162	0.1586
At Most 1	0.267123	6.526320	14.26460	0.5466
At Most 2	0.087092	1.913513	3.841465	0.1666

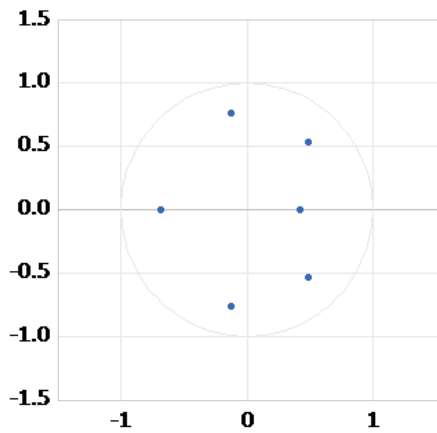
*Denotes rejection of H_0 at the 0.05 level.

Trace and Max-Eigenvalue tests indicate one cointegrating equation at the 0.05 level.

According to the results in Table 7, the null hypothesis (H_0) of "there is no cointegrated vector" can be accepted because each of the calculated trace statistical values is greater than its critical values in the model. Therefore, according to the trace statistics, there is not cointegrated series. In addition, since each of the maximum eigenvalue statistical values is greater than its critical values, the null hypothesis that "there is no cointegration relationship between the series" is accepted. Therefore, according to the maximum eigenvalue statistics, it is observed that there is not a cointegrating relationship between the series and the series move together in the long run.

Since the probability value is above the 5% significance level, the H_0 hypothesis cannot be rejected and it is understood that there is no cointegration relationship between the series. Since the variables are integrated in the first order and the cointegration relationship between them cannot be determined, the VAR model can be applied with the differenced variables and then causality tests can be done.

Chart 1. Roots of AR Characteristic Polynomial

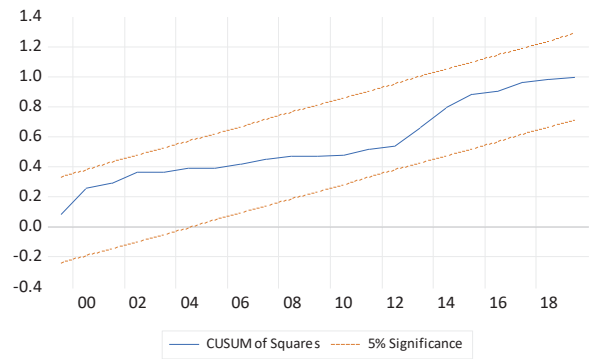


After establishing the VAR model according to the relevant lag-length, characteristic polynomial roots, autocorrelation, heteroskedasticity, normality and cusum-sq tests are reviewed and reported in Chart 1, 2 and Table 8. According to the results, no root lies outside the unit circle and VAR satisfies the stability condition. The model does not contain heteroskedasticity, autocorrelation, normality and structural breaks problems.

Table 8: Diagnostic Tests

	Lag	LM-Stat	Prob.
Autocorrelation LM Tests	1	7.341945	0.6016
	2	4.486348	0.8766
	3	11.48449	0.2440
	4	5.311124	0.8064
	5	5.055036	0.8295
		Chi-sq	Prob.
Heteroscedasticity Tests		72.22324	0.4704
		Jarque-Bera	Prob.
Normality Tests		2.688892	0.8468

Chart 2. CUSUM-sq Tests



In variance decomposition analysis, the reasons for the changes in the variance of a variable are investigated. It is investigated how much of this change is due to the variable itself and how much of it is due to other variables. The variance decomposition with ten lags is shown in table 9.

Table 9. Variance Decomposition

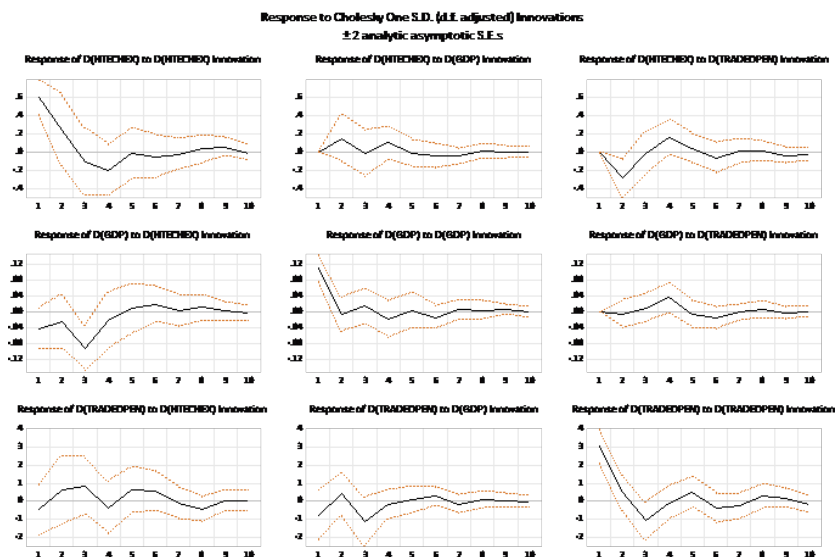
VD of dhtechex				
Period	S.E.	d(htechex)	d(gdp)	d(open)
1	0.603102	100.0000	0.000000	0.000000
2	0.723615	80.54772	4.469232	14.98304
3	0.730381	80.85703	4.426270	14.71670
4	0.780141	77.01752	5.574710	17.40777
5	0.781700	76.73597	5.572259	17.69177
6	0.786256	76.21694	5.710277	18.07278
7	0.788013	75.96201	5.998390	18.03960
8	0.789367	75.94793	6.022301	18.02977
9	0.792184	75.94544	5.979550	18.07501
10	0.792479	75.89660	5.976049	18.12735
VD of dgdg				
Period	S.E.	d(htechex)	d(gdp)	d(open)
1	0.118980	13.02647	86.97353	0.000000
2	0.122003	16.55476	83.15175	0.293487
3	0.154126	46.59081	52.84486	0.564327
4	0.160914	44.97353	49.87378	5.152691
5	0.161122	44.96701	49.70820	5.324799
6	0.163927	44.78866	48.99828	6.213065
7	0.164004	44.75386	49.01738	6.228762
8	0.164401	44.89849	48.82136	6.283753
9	0.164538	44.82679	48.83536	6.337855
10	0.164648	44.88402	48.78653	6.329445

VD of dopen				
Period	S.E.	d(htechex)	d(gdp)	d(open)
1	3.191681	2.029224	5.443738	92.52704
2	3.317495	5.553119	6.720501	87.72638
3	3.750108	9.608213	13.63731	76.75448
4	3.769434	10.33034	13.66699	76.00268
5	3.859131	12.55040	13.10842	74.34118
6	3.929706	14.20553	13.13629	72.65817
7	3.943181	14.19906	13.17657	72.62438
8	3.977656	15.03543	13.00451	71.96006
9	3.982650	15.01801	12.98355	71.99844
10	3.987228	15.00002	12.96295	72.03703

According to Table 9; 100% of the changes in high technology exports in the first period are due to itself. It comes to balance after about four periods, and it is seen that 75.9% is caused by itself, 5.9% is due to economic growth, and 18% is due to the change in trade openness. In the first period, 86.9% of the change in Turkey's economic growth stems from itself, 13% from high-tech exports and stabilizes after 6 periods. Finally, 92.5% of the changes in the openness variable are due to itself in the first period, and it reaches the balance at the level of 72% after six periods. At this point, it is observed that the distribution among other variables is 3.9% and 14%, respectively.

Since coefficient interpretation is avoided in var analysis, impulse-response functions after variance decomposition are important to strengthen the results. The main purpose is to determine the degree of response of the variable affected by a shock first and then the response of other variables. In addition, it is important to see when the reaction process will go off. For this reason, while performing the impulse-response analysis, a shock of 1 standard deviation is given externally to the variables and the response of all variables to this shock is monitored.

Chart 3. Impulse-Response Function



The important issue in the evaluation of the impulse-response function is the reaction of the other variables to it, rather than the response of the variable itself. According to Chart 3, it can be said that after a one-unit shock to economic growth, high technology exports converged to the average after about 6 lags after showing increase-decrease-increase reactions. The openness variable follows a similar path and converges to the mean after 6 periods. After the 1-unit shock to hightech exports, the response of economic growth converged to the average after about 6 periods, and the variable of openness to the average after 9 periods. Finally, the 1-unit shock applied to the trade openness variable, the high-tech exports variable shows a decreasing reaction in the first 2 periods, and after a rapid increase, it fades out by following a horizontal course from the seventh period. Although the economic growth response started with a more pronounced sharp decline, it is seen that it converged to the average as of the 8th period.

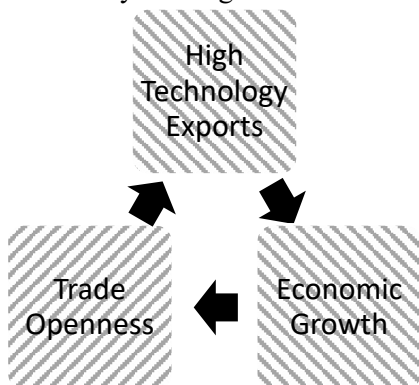
Table 10: VAR Granger Causality Tests

Direction	Chi-square value	Df	Probability	Result
gdp→htechex	0.615487	2	0.7351	No relationship
open→htechex	14.36891	2	0.0008*	✓
htechex→gdp	13.92800	2	0.0009*	✓
open→gdp	0.136515	2	0.9340	No relationship
htechex→open	0.928633	2	0.6286	No relationship
gdp→open	6.154814	2	0.0461**	✓

* and ** respectively indicate causal relationship at the 1% and 5% significance level.

VAR granger causality test results are illustrated in Figure 1. According to results, it has been defined a one-way causal relationship from trade openness to high-tech exports and a one-way causal relationship from high-tech exports to growth. And also, there is one way causal relationship from growth to trade openness.

Figure 1. Causality Findings for the Variables



2. CONCLUSION

When evaluated in the global competitive environment, it is thought that the capability of countries to generate new knowledge is the only dependable source of competitive advantage. However, knowledge also emerges as a fundamental input in the creation of new product and/or process, new technologies. Therefore, in order to compete in global markets and adapt to the global economy, it is necessary to constantly develop new products/process or technologies and to

innovate (Dulupçu, et al., 2007). The increase in high-tech exports also ensures information about the general competitiveness and position of countries in the global technology market. What contributes to an understanding of the relative importance of high-tech exports in the international market is often the use of knowledge, the impact of R&D and innovation on comparative advantages in a dynamic economic environment (Tebaldi, 2011). As expressed in many theoretical studies, technological developments are seen as the driving force of both trade and sustainable growth (Posner, 1961; Vernon, 1966; Grossman and Helpman, 1991).

According to analysis results, it has been determined a one-way causal relationship from trade openness to high-tech exports and a one-way causal relationship from high-tech exports to economic growth. And also, there is one-way relationship from economic growth to trade openness. For this reason, it is thought that an export-based open policy should be supported in order to encourage the export of high-tech products in developing countries. Thus, both the export volume will increase and the productivity of production resources will be increased.

At this point, the current linkage between high-tech exports and trade openness is very important. Producers import innovation-based intermediate goods in the absence of domestic production. In this case, trade openness in the country increases competition and the high level of competition increases the efficiency, productivity and innovation capacity of even monopoly-type domestic producers. Monopoly-type domestic producers will be highly motivated to innovate when faced with foreign competition. Intense competition will lead to an increase in value-added in domestic production and export performance. In addition, open economies have lower costs and longer-term foreign savings in financing their investments. This situation supports high-tech exports by increasing the production capability with external funds (Güneş et al., 2020:246).

On the other hand, export-based development strategies have a positive effect on growth as they cause an increase in market size, productivity and foreign direct investments, as well as efficiency in resource allocation. In this respect, many developing countries aim to catch up with industrialized countries by increasing their export diversity and potential. In this growth channel, the production and marketing of high technology products constitute the most important area under the influence of exports. It is also important for developing countries to focus their investments in these areas by giving importance to high-tech exports.

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Chapter 5

Green Packaging and Sustainability in Turkey: General Trends and Future Challenges

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1. Introduction

Green concept is a common term that we come across over the last years. It has especially at a center of attention because of the sustainable environment. Consumers and buyers are the owners of all living things on planet and their survival depend on the conservation of natural resources. To sell their products, many companies provide their products in a more environmental friendly way so they can be different from their competitors.

The main purpose of sustainability is to meet the needs of society while making profit. Companies that desire to be sustainable not only should be eco-friendly in production, but also be eco-friendly in marketing. Green packaging specifically is the most tangible concept and has a practical view; therefore it is worth to contemplate on with sustainability.

“Logistics Social Responsibility” is another concept that can be mentioned in sustainability. There are ample studies on it recently in literature and it actually covers all the green activities in companies. (Kucukaltan, 2021: 197) defines Logistics Socially responsible firms’ activities as: “saving energy, reducing CO2 emissions and waste of materials (e.g. solid and hazardous), offering renewable energy solutions through solar panels established on the roofs of warehouses and buildings, using alternative energy and fuel solutions throughout transportation activities, considering recycling options, irrigating green fields by using rainwaters, and establishing lean logistics practices”. (Guja and Sady, 2014: 69) adds moreover, “Work safety, employee rights, relations with society, safety of products, and process of purchase.” As sum up, Logistics Social Responsibility has economic, social, ecological aspects.

This article discusses the current trends of green packaging and mentions the challenges. Future expectations are also mentioned in the aspect of sustainability throughout the article.

1) Materials of Green Packaging

Packaging of the goods might made up of paper, plastic, glass, metal, ceramic, bamboo, and other composite materials etc. Other materials might include adhesives, coatings, ink. In green packaging material selection should be;

(1) Lightweight, thin, easy to separate, high-performance packaging materials. (2) Recyclable and renewable packaging materials. (3) Edible packaging materials. (4) Degradable packaging materials. (5) Natural packaging materials developed by using natural resources. (6) Try to use paper packaging. (Li & Sun 2020 : 1).

Today the packaging is not just covering the material that is being sold. It is a value of a company; it is not just about costs. Packaging also creates loyalty. It is

one of reasons the customers choose where to buy their product from and it is also a positioning of a product. It as well as involves the other concepts of marketing such as identity and brand image (Ojha, Sharma, Sihag and Ojha 2015 : 241). Green marketing encourages the production and promotion of products and services. It also ensures the most effective use of natural resources, which is beneficial for customers so that it will be not only beneficial for companies but society as well (Polonsky, 1994: 217).

Logistics packaging is about a term for containers and other substances. It is not only a protection of a product, but it refers to transportation and sale of the product. In terms of logistics there are many kinds of packaging such as; cold and hot plastic film packaging, soft plastic turnover box, plastic turnover box, bag packaging, and non-woven packaging. (Wang and Wang, 2021: 2).

In tobacco industry, %85 cigarette distribution centers use disposable plastic film packaging and this kind of packaging constitutes 16.000 tons of disposable plastic film every year. When the green packaging reaches a certain level, the packaging and logistics costs will substantially be reduced. Eventually, “white pollution” will also decrease (Wang and Wang 2021: 3). According to (Isa and Yao, 2013: 85), additionally plastic waste is difficult and costly to recycle. Land filling, which means the waste is secured to ground, is the most preferred method. Plastic waste has also adverse effects on central nervous system.

2. Green Packaging in Marketing

According to (Mishra and Sharma, 2014: 79), because the resources are scarce, it is important for marketers to use resources efficiently. Green marketing comes out as a result of this notion. Green marketing is providing products and services to satisfy customers at an affordable cost reducing the detrimental impact to the environment. Main goals of green marketing are: eliminating the waste, recreating a product, giving prices in actual environmental costs, making green activities profitable, modifying products, altering production processes, making a change in packages and advertising.

Recently, carbon emissions have become a subject of world. Undoubtly, governments have a great responsibility to lower the level of carbon emissions (Zhang and Zhao, 2012: 903). However, demand side is also crucial to create this world. (Grant, 2008: 25). Therefore green marketing takes attention with production or logistics overall. Companies will also have a great responsibility as well as government.

In terms of green marketing, it is important to know the customer, educate a customer, being clear on company goals of green perspective, persuading the

buyer, considering the pricing (Mishra and Sharma, 2014: 81). Customer types might also vary country to country.

(Herbes, Beuthner & Ramme, 2020: 259) finds out that considering green packaging French value color and perceived material of the packaging compared to German and US consumers. For them, brown and color of nature are more environmental friendly. German are not eager to look for the color, since colors of nature not necessarily sign of eco-friendly in their opinion. Therefore, cultural differences and experiences are also worth to measure the preferences of customers towards green packaging. Size and shape of the packages are also important on customer preferences. Small size of products perceived as environmental friendly compared to over-sized packages. German focuses on German word “Gruener Punkt” thinking that manufacturer involved in cost of the product.

Although (Auliandri, Thoyib, Rohman and Rofiq 2018: 382)’s research mention that subjective norms have a greatest effect on young consumers intention of preferring green packaging, consumers care about the environment however; it does not reflect to their buying behavior. In other words, consumers do not only prefer green packaging to protect the environment and provide less pollution. They believe green packaging should provide them benefits. This can be either about function, design or aesthetics of the package.

Additionally, charges on green packaging are also not motivating consumers to buy the green product. Moreover, if other consumers do not prefer green packaging, then most other also does not buy green products (Rokka and Uusitalo 2008 : 518). For marketing side; it is important to understand the buying decisions to promote green activities and green packaging (Wandosell, Parra-Meroño, Alcayde and Baños, 2021: 2). Buying decisions can be affected from the age and education and environmental literacy. Advertising, price and packaging has a positive effect in buying decision (Ansar, 2013: 655). Buying decisions eventually will affect supply side. Companies will produce more green products if customers ask for it.

3. Green Packaging in Transportation

(Nguyen, 2020: 40) mentions that logistics firms failed to balance “planet” factor with “profit” factor to form eco design in packaging. “Eco” means both economy and ecology. According to (Kucukaltan 2021: 183) there is a link between marketing and logistics and distribution is one of the core functions of marketing. Green packaging is really important for distribution and distribution costs. Therefore, it is logical to express green packaging as in both marketing and transportation.

“Sustainable Packaging Logistics” is a term that came out recent years in the literature (Wandosell, Parra-Meroño, Alcayde and Baños, 2021: 1356). (García-Arca, Garrido and Prado-Prado, 2017: 1) defines “sustainable packaging logistics” as different levels of packaging: “primary or consumer packaging, secondary or transport packaging (usually, boxes) and tertiary packaging (several primary or secondary packages grouped together on a pallet)”. Different packaging alternatives with materials, dimensions, structure of packaging, aesthetic design of packaging create difference in climate and culture of a firm. Eventually has an effect on sustainability and supply chain competitiveness. The logistics department needs packaging design to make the most of volumes and weights in freight loads which has benefits in storage, handling and transportation (García, Garrido and Prado-Prado, 2017: 2).

(Casper and Sundin, 2018: 157) highlights that contaminated with operation fluids substances have different type of packaging and transportation for example; oil, carbon, diesel and petrol. An ideal packaging should be reusable, safe and environmental friendly. Reduce, Reuse, Recycle and Degradable are the main objectives of the green packaging. Green packaging aims to be natural and simple. However, it also takes into account protection, convenience, and marketing of goods.

According to (Erismis and Gezerman, 2012: 8620) packaging has not only goal of protecting the material, it has also a goal for lowering distribution and stocking costs and providing safe transportation. Cost savings can be achieved by assigning low number of employees for packaging and increasing production. Stocking systematically and limiting transportation costs is also a goal of cost savings. This paper exemplifies a packaging design from a company Olmuksa International Paper. It discusses a packaging design which reduces packaging material so eventually it reduces freight costs. Furthermore, it discusses transportation and warehouse advantages, the packaging provides.

(Simon and Chen, 2013: 223) discusses the pallet utilization and mentions tradeoff between packaging impact and cost of logistics. If more packaging material is consumed, then it will decrease damage rate. It will eventually lower the material wastes. Since packaging has less materials then the product itself.

4. Green Packaging Practices in Turkey

KFC Turkey; within the framework of its sustainability approach, completes the transition process to Forest Stewardship Council (FSC) certified paper products, which is the worldwide application of the Forest Management Council announced in April 2021, with the renewed packaging taking place in all restaurants. With the transition to FSC certified products, KFC Turkey provides

added value to ecological processes by obtaining an average of 950 tons of paper used in its restaurants annually from controlled sources that protect forest productivity and biodiversity (Dunya, 2022).

Unilever Turkey mentions that the company is going for plastic-free solutions and that will shift packaging, formulas and products to sustainable sources by reviewing all processes, starting to use recycled plastic in all of their packaging in OMO and CIF brands. The company saves 70 tons of plastic with OMO and this will continue to increase. The use of packaging will decrease with novel solutions. Additionally, Unilever is working on the project of softener from waste clothes and dishwashing detergent from table sugar. Furthermore, Migros cooperates with Unilever, establishing a common filling unit. The consumer brings his/her package to fill it from the tap. In turn, this will decrease the use of plastic and it will become widespread in many parts of Turkey (NTV, 2022).

Within the framework of its sustainability strategy, KOROZO carries out all its operations with environmental responsibility and sustainability, as required by its position as the global supplier of its business partners. It commits to its business partners that all packaging production will be reusable or recyclable by 2030 (Yeşil Nokta Ödülleri, 2020).

Hayat Su's packaging aims to have 100% recyclable materials by the end of 2020. By 2025, an average of 50 of all PET bottles in its portfolio will be made of recycled plastic (Yeşil Nokta Ödülleri, 2020).

The pizza market is a 145 billion dollar market where more than 10 billion pizza boxes are consumed annually in the world. This means approximately 900,000 tons of paper consumption every year. In this market where there is a serious consumption of corrugated cardboard and paper, the Eco pizza box is a new generation pizza box designed to reduce this consumption and as an indicator of its responsibility towards world. With its rational design, Eco pizza box is produced from 100% corrugated cardboard, which reduces material consumption by 10% compared to standard pizza boxes and also provides more practical use to users (Yeşil Nokta Ödülleri, 2020)

5. Conclusion

Packaging; plays the most important role in the smooth realization of all movements of the product in the supply chain for both the manufacturer and the carrier. In addition to these important roles, the fact that the packaging is used more than necessary to ensure the protection function of the product, especially in transportation, creates a serious waste generation and environmental pollution problem.

Logistics service providers have adopted the “Green Logistics” approach in order to eliminate packaging-related wastes and environmental pollution caused by these wastes. On the other hand, when the applications realized both in the world and in our country are examined, it is observed that the logistics service providers act in the form of reducing energy consumption, reducing the emission rate and reducing the carbon footprint rather than greening through packaging. While there are different reasons for this situation in the world, the most important reason for our country can be shown that the mutual cooperation in packaging design between logistics service buyers and logistics service providers has remained at a limited level.

This paper discusses the current usages and challenges of green packaging. Perception of usage of green packaging might change in different cultures. Studies in different cultures might be elaborated and diversified. There are challenges in marketing of green products. One challenge is that; green packaging has high costs however; marketing departments can work with logistics departments to find optimum way of producing low cost and suitable green package for transportation. However, design of the packaging is essential which in the long run decrease transportation costs.

It is important to measure the needs of customers as well. The future studies might include to measure needs of both logistics firms and customers to produce green products. Refundable packages can be prevalent, is an option. In green life, it is important that both sides, both customers and companies have benefits from green packaging.

An application that will relieve both manufacturers and companies providing logistics services in packaging production will be the dissemination of the up cycling approach. It is clear that, in addition to the functions of packaging such as transportation, protection and information transfer, gaining usage areas through up cycling will alleviate the waste packaging burden on logistics service providers.

Designing different green packages for the existing products can be another subject of study. Reusable packages or different designs of green packages might also be motivation for customers to prefer green packages. Protecting environment does not need to be coercive. If customers are well- informed about protecting environment and they know that they have benefits from their deeds, green actions might be easy to implement.

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Chapter 6

Job Crafting From A Conceptual Perspective

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INTRODUCTION

In today's business world where intense changes are being experienced, the most significant skill that organizations and individuals must have is the ability to adapt. It is highly difficult for organizations that cannot adapt to new situations to compete and survive. Person-job fit and proactive behavior play a significant role in employees' success in their job. In cases where employees are not compatible with the role they assume in the organization, they need to take the initiative and have the competence to change the way jobs are done and the style of interaction.

In recent years, there is an increased interest in studies and applications related to job crafting, which is considered as the proactive behavior that employees assume in order to establish a balance between their job demands and resources in the most suitable way (Bakker, 2017: 325). Job crafting is important in terms of meeting employees' expectations related to their jobs and minimizing the complications they experience. Thus, employees will be able to make changes such as shaping their jobs, making sense of their jobs, and arranging their relations with other employees by harmonizing their job-related responsibilities with their personal interests and skills (Kerse, 2017: 284). This change they make will contribute to the development of valuable outcomes for the organization such as job satisfaction, job performance, and work engagement and may help eliminate negative situations such as burnout, job stress, and intention to leave. Job crafting is promising as an effective organizational practice as it makes employees to assume an active role in terms of shaping their job-related experiences (Slemp and Vella-Brodrick, 2013: 127).

In the present study, the definition, importance, dimensions, predictors, and outcomes of job crafting put forward by researchers conducting studies in the field of organizational behavior will be explained, and a conceptual framework will be tried to be formed.

DEFINITION AND IMPORTANCE OF JOB CRAFTING

The first comprehensive study conducted on job crafting is the study conducted by Wrzesniewski and Dutton in 2001. The concept labeled as "job crafting" in the international literature is commonly used in the national literature with different expressions such as "job competence" (iş becerikliliği) (Akçakanat et al., 2019; Aksoy, 2019; Etlik et al., 2019; Seçkin, 2019; Dalgıç and Türkoglu, 2018; Kerse, 2017; Akın et al., 2014), "job shaping" (iş şekillendirme) (Oruç, 2019; Turan and Özdemir, 2019), "job restructuring" (iş yapılandırma) (Uysal et al., 2018). "job craftsmanship" (iş zanaatkarlığı) (Yavuz and Artan, 2019).

According to some researchers of organization, a job experience is composed of factors such as expectations or values, while some others argue that it consists of external features of the job such as job tasks or social interaction at the workplace. It

is seen that both perspectives minimize employees' actively shaping their roles related to their jobs. In fact, in even the most routine jobs, employees have an impact on the content of the job they do, albeit minimally (Wrzesniewski and Dutton, 2001: 179). Wrzesniewski and Dutton (2001) based this study on the perspective that "job tasks and interactions that make up employees' days, jobs, and lives are the raw materials that they utilize in order to build their jobs." The interactions that employees establish in the workplace shape their perception whether they are part of the job or not and help them to define and limit their tasks. However, job boundaries, job meaning, and job identities may not be determined exactly by job requirements. Individuals have the freedom of action as "job crafters" in order to design and perform the job. In the light of these explanations, job crafting is defined as "*the physical and cognitive changes made by individuals related to their job or interaction boundaries*", and job crafting is expressed as an action, while those who perform this action are called as job crafters (Wrzesniewski and Dutton, 2001: 179). While the physical changes here refer to the changes in job interactions, job scope or quantity, or the changes in the style of performing the job, the cognitive changes express the change in the perception of the individuals related to the job (Bakker et al., 2012: 1361). According to another definition, job crafting expresses the ways that individuals assume an active role in introducing certain changes in the physical, cognitive, and social dimensions of their jobs, that is, the informal process that they utilize in order to adjust the practices at work to their individual interests and values (Slemp and Vella-Brodrick, 2013: 126).

Whether the changes that employees make in relation to their jobs are seen as a radical change or not, job crafters always exist in working life. For example, an information technologies support employee's helping other employees in using their websites in addition to his/her usual job tasks changes both his/her job and his/her interactions with other employees. Similarly, an overworking employee's reducing the scope and quantity of his/her job activities in order to prevent burnout is considered as job crafting (Wrzesniewski and Dutton, 2001: 180-181). In other words, for a change to be considered job crafting, a radical change in the structure of the job is not a must. Changes that will help an employee to feel better and make him/her believe that s/he is doing his/her job more efficiently can be evaluated within the scope of job crafting.

While defining job crafting concept, it is also necessary to determine its difference from the concept of job design. Job design is related with the structural features of the jobs formed and implemented by the managers, while job crafting concentrates on the proactive changes made by employees in the boundaries related to their jobs (Berg et al., 2010: 159). The main aspect of job crafting is the employees' making changes in their current jobs or other job properties with their own will. With this

aspect, job crafting differentiates from job design models formed from top to bottom, i.e., by the managers. This is because job crafting is related with proactive job behavior. An important benefit of proactive job behaviors is their being related with performance indicators, as they involve employees' capability to make changes to their jobs in order to increase organizational efficiency. Proactive behaviors displayed in job crafting are different from previously studied proactive behaviors, as they primarily aim to increase person-job fit and work motivation (Tims et al., 2012: 174). Job crafting proactively changes the job's features in order to ensure a better fit between the employees' jobs and their personal characteristics (Akkermans and Tims, 2017: 174). According to Lyons (2008: 25), job crafting expresses changes in which the management is not involved and which are largely made secretly without the knowledge of the management by the employees in order to fulfill their purpose. In support of this view, Tims and Bakker (2010: 3) state that job crafting is the employees' taking initiative and making changes to their jobs without the managers' knowledge. Rather than employees' making structural changes to their jobs, job crafting is an informal process that centers on the positive changes that employees can make in the functional, relational, or cognitive domains of their jobs (Slemp and Vella-Brodrick, 2014: 958).

DIMENSIONS OF JOB CRAFTING

Various dimensions of job crafting have been put forward by different researchers. These dimensions are discussed below.

1) Classification Made by Wrzesniewski and Dutton (2001)

The first classification related to the dimensions of job crafting was made by Wrzesniewski and Dutton (2001), and they expressed this classification as task crafting, relational crafting, and cognitive crafting.

a) Task Crafting

The physical or temporal changes made by employees in the tasks they consider as their jobs refer to task crafting. This concept consists of activities such as proactively increasing or reducing the quantity of their tasks, adapting the time and effort they spend while performing their jobs, redesigning their jobs, and offering tasks more suitable for the skills and interest areas of the individual (Wrzesniewski and Dutton, 2013: 283; Slemp and Vella-Brodrick, 2013:127; Slemp et al., 2015: 3).

b) Relational Crafting

Employees' rearranging the interpersonal relations they establish while performing their jobs is another dimension of job crafting. While doing so, employees

may prefer to have more interaction with individuals they get along well, reduce their relations with others, or completely give up interaction (Wrzesniewski and Dutton, 2013: 283). Thus, employees can build friendships with individuals who have similar areas of interest and skills (Slemp and Vella-Brodrick, 2013: 127).

c) Cognitive Crafting

The last dimension of job crafting is cognitive crafting, which is defined as employees’ change of perception related to their jobs and reinterpreting them (Wrzesniewski and Dutton, 2013: 283). Cognitive crafting is structurally different from task crafting and relational crafting. This is because in this dimension, there are activities that include employees’ changing their perceptions related to their jobs in order to make more sense of their jobs, rather than a physical change (Slemp and Vella-Brodrick, 2013: 127). In the table below, examples of what types of changes employees can make in their jobs and the dimensions discussed above are presented.

Table 1: Forms of Job Crafting

Description	Example	Effect on Meaning of Work
Modifying the amount, scope, and types of job tasks	Design engineers involving in a relational task which will enable a project to be completed	When work is completed in a timely fashion, engineers change the meaning of their jobs as the guardian and mover of the projects
Changing the quality and quantity of interaction with other employees engaged in the workplace	Hospital cleaners actively getting involved in helping the patient and relatives, and identifying themselves with the unit they work in	Hospital cleaners changing the meaning of their job to be helpers of the patients, and considering the works of the unit they work in as a whole and seeing themselves as an important part of it
Changing the boundaries of cognitive task	Nurses taking on more responsibility for all information and insignificant tasks that will help them to provide more appropriate care for a patient	Nurses changing their perception of their jobs so as to advocate the patient in addition to providing high-quality technical care

Source: Wrzesniewski, A., Dutton, J. E., (2001), Crafting A Job: Revisioning Employees as Active Crafters of Their Work”, *Academy of Management*, 26(2), p.185.

In the table, examples of three types of job crafting are presented. In the first example, it is seen that design engineers change the quantity, scope, or type of their jobs through task crafting. As a result of the contribution of the change that s/he has made to the completion of the project on time, the design engineer starts to see himself/herself as the guardian and mover of the project. In the second example, through relational crafting, the hospital cleaner not only performed his/her task of cleaning, but s/he has changed the meaning of the task by interacting with and helping the patient and relatives and started to see the task in the unit as a whole and himself/herself as a vital part of the whole. In the final example, by way of cognitive crafting, nurses obtain the information that will ensure the best service to the patient and assume seemingly insignificant tasks, thus they not only provide technical help but also find their jobs more meaningful by advocating the patient.

2) Job Crafting Within the Framework of Job Demands-Resources (JD-R) Model

It is seen that in several studies conducted on job crafting (Demerouti et al., 2001; Bakker and Demerouti, 2007; Tims and Bakker, 2010; Tims et al., 2012), the subject has been evaluated in the light of Job Demands-Resources (JD-R) Model. Job crafting has been considered as a special proactive behavior by which employees initiate changes in job demands and resources in order to make their jobs more appealing and satisfactory. Job crafting supports the top-down job approaches in order to deal with the inadequacy of job redesign approaches, respond to the complexity of modern jobs, and improve the jobs in meeting the demands of the current workforce (Demerouti, 2014: 237-238).

At the center of the Job Demands-Resources (JD-R) Model lies the assumption that job features of each organization can be characterized by two factors named as job demands and job resources. This model also suggests that job demands and job resources start two independent process, which are health deteriorating and motivational, respectively. If job demands are continuously high, employees begin to experience burnout and health problems that will harm effective functioning. On the other hand, job resources facilitate work engagement and motivation and create a positive and indirect effect on job performance (Bakker, 2017: 322). As the Job Demands-Resources (JD-R) Model divides all job properties into job demands and job resources, it can be used in order to determine what employees have changed in job designs (Tims and Bakker, 2010:3).

Job demands comprise the physical, social, or organizational aspects of the job that require a continuous physical or mental effort, and therefore are related

with certain physiological and psychological costs (Demerouti et al., 2001: 501; Schaufeli and Bakker, 2004: 296). Pressure to work overtime, material inadequacy of the working environment, and emotionally challenging interactions with customers can be given as examples to job demands (Bakker and Demerouti, 2007: 312; Tims et al., 2014: 915). Although job demands are not definitely negative, since they require high effort in meeting these needs, they are associated with high costs that cause negative reactions to develop such as depression, anxiety, or burnout (Schaufeli and Bakker, 2004: 296). According to the results of some studies that revealed the relationships between job demands and job outcomes, while some job demands such as role uncertainty and lack of trust are related with negative outputs such as staff turnover rate, job demands such as pressure of time and quantity of tasks were found to be related with positive outputs such as job satisfaction (Tims et al., 2014:915).

As for job resources, they are related with the physical, psychological, social, or organizational aspects of the job such as working in order to achieve job targets, balancing job demands and increasing the relevant physiological and psychological costs, and encouraging personal development, skill development, and learning and development (Bakker and Demerouti, 2007: 312; Schaufeli and Bakker, 2004: 296; Ingusci et al., 2016: 268). Autonomy, performance feedback, skill variety, and social support can be given as examples to job resources (Tims et al., 2014: 915). While job resources increase employees' motivation, job demands may negatively affect their health (Petrou et al., 2015: 2). It can be claimed that for an effective working environment and more peace for employees, a balance should be ensured between job demands and job resources. Thanks to the employees' shaping job demands and job resources in such a way to meet their preferences and needs, their work engagement and satisfaction levels can increase as an outcome of job crafting (Tims et al., 2013a: 231).

Tims and Bakker (2010: 4) state that employees can make the following three changes in order to adjust job demands and job resources with their personal skills and preferences:

- Increasing the level of current job resources,
- Increasing the level of job demands,
- Decreasing the level of job demands.

Studies conducted show that employees who could increase the level of current job resources are more engaged, and this could allow them to gain more resources. Employees can increase their level of job demands by adding new tasks to their jobs, voluntarily participating in appealing project groups, or taking on their manager's tasks. Another change that employees can make in cases when their tasks exceed their skills is to decrease the level of job demands. They can

achieve this by requesting their colleagues to assist them with their tasks, or by reducing the amount of their interactions with challenging customers and colleagues. Thus, employees will achieve their job targets without spending a great deal of effort and by remaining healthy (Tims and Bakker, 2010:4).

The Job Demands-Resources (JD-R) Model proposed by Bakker and Demerouti (2007: 313) is presented in the figure below. As can be seen in the figure, the model has a role in the development of two different psychological processes of tension and motivation. Firstly, in the tension process, job demands such as poorly designed jobs or excessive workload and emotional demands deplete employees' mental and physical resources and leads to the exhaustion of their energy and health problems. The second process proposed in the model is the process of motivation. In this process, it is assumed that job resources are likely to increase motivation, and that if it is high, it leads to engagement, low cynicism, and high performance. Job resources play both the role of intrinsic motivation as they encourage employees' learning and development, and the role of extrinsic motivation as they are effective in terms of achieving job targets.

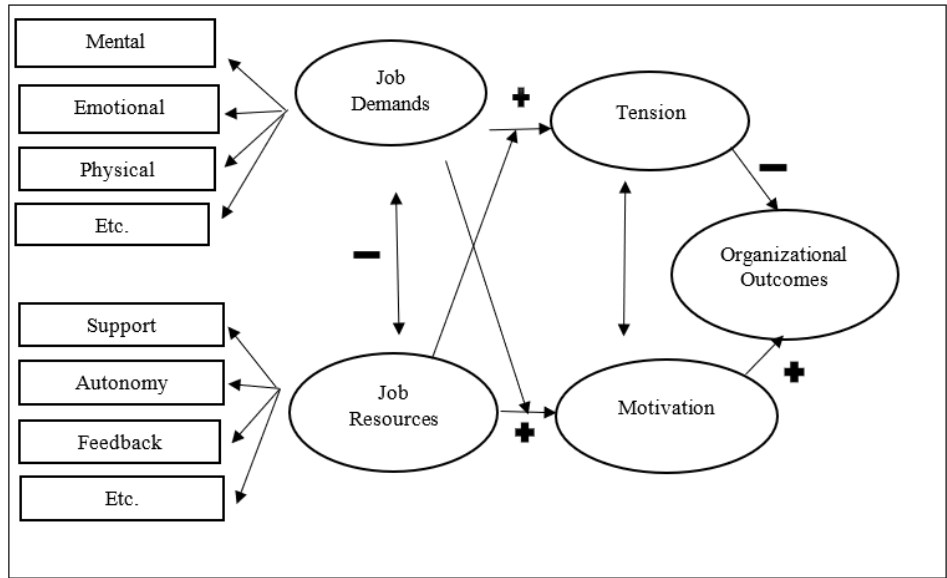


Figure 2: Job Demands-Resources Model

Source: Bakker, A. B., Demerouti, E. (2007), The Job Demands-Resources Model: State of the Art, *Journal of Managerial Psychology*, 22, (3), p.313.

3) Classification Made by Tims et al. (2012)

Based on the Job Demands-Resources Model, Tims et al. (2012: 174) stated that job crafting consists of conceptually three different dimensions. These dimensions are:

- Increasing job resources,
- Increasing challenging job demands,
- Decreasing hindering job demands.

It is believed that increasing the level of job resources leads to significant individual outcomes such as work engagement and job satisfaction. The second dimension proposed for job crafting is to increase challenging job demands. This dimension expresses that employees should experience a certain level of job demands for job motivation. As a result of challenging job demands they encounter, employees' knowledge and skills will develop, and a contribution will be made to their achieving challenging job targets. The third dimension proposed, decreasing hindering job demands, involves employees' proactively decreasing job demands when they see that demands have reached a level that could not be met. A few studies have shown that being exposed to high demands for long periods along with a low level of job resources can lead to health problems such as burnout and organizational problems such as undesirable staff turnover. According to the results of another study, there is a negative correlation between hindering job demands and work engagement. The costs that employees have to take on in order to meet hindering job demands can be a reason for proactively decreasing these (Tims et al., 2012: 175). As a result, in cases where job demands and job resources levels are not balanced, employees can get into an effort to reduce this error by utilizing the three complementary strategies of job crafting (Tims et al., 2012: 175). In other words, employees can utilize these strategies in the changes they will make in order to harmonize their jobs with their own personal characteristics and needs.

As a result of factor analysis of the study they conducted, Tims et al. (2012) reported that instead of the three dimensions they proposed, the concept of job crafting should be divided into four dimensions. The two of these four dimensions they newly proposed are increasing challenging job demands and decreasing hindering job demands included in their previous hypothesis. The other two dimensions represent the dimension of increasing job resources included in the first hypothesis. The content analysis of these two new factors, which are expressed as increasing structural job resources and increasing social job resources, has disclosed the conceptual difference between them. While the factor of increasing structural job resources refers to resource variety, development opportunity, and autonomy, the factor of increasing social job resources is related

with social support, supervision coaching, and feedback. The difference between these two factors arises from the type of job resources (Tims et al., 2012: 176).

According to the results of the study conducted by Tims et al. titled “Development and Validity of Job Crafting Scale”, the dimensions of job crafting obtained are as follows:

- Increasing Structural Job Resources,
- Increasing Social Job Resources,
- Increasing Challenging Job Demands,
- Decreasing Hindering Job Demands.

a) Increasing Structural Job Resources

It is related with increasing structural job resources through methods such as skill variety, development opportunities, and autonomy that encourage development and learning, i.e., methods which are functional in achieving job targets (Tims et al., 2012: 176; Kooji et al., 2015: 149).

b) Increasing Social Job Resources

This dimension is expressed as employees’ efforts to increase job resources by developing the relationships with colleagues in the workplace through ways such as feedback, social support, and supervising coaching (Akçakanat et al., 2019: 399; Kooji et al., 2015: 149; Tims et al., 2012: 176).

c) Increasing Challenging Job Demands

In addition to being demands that could lead to stress which requires continuous physical and/or psychological effort or skill, challenging job demands are also expressed as demands that are rewarding and worth the effort, e.g., new projects (Heuvel et al., 2015: 512; Kooji et al., 2015: 149). Being involved in new projects can create stress in terms of experiencing a job that is new and not done before, but it can also look appealing in terms of the rewards to be gained in case of the success of the project. Akçakanat et al. (2019: 399) have defined this dimension as employees’ taking on additional tasks outside their job description by their own will and their efforts to obtain new information and increase the responsibilities they assume in order to develop their skills.

d) Decreasing Hindering Job Demands

Hindering job demands are related to demands which include excessive and undesirable restrictions which hinder employees from achieving valuable job targets (Heuvel et al., 2015: 512). Decreasing hindering job demands expresses decreasing demands by preventing emotional and mental job demands that arise

from the necessity to work with other individuals, i.e., all aspects of the job that necessitate a continuous physical and/or psychological effort, and thus could be related with physical or psychological costs (Kooji et al., 2015: 149).

4) Classification Made by Petrou et al. (2012).

Petrou et al. (2012) classified job crafting in three dimensions listed below:

- Seeking Resources,
- Seeking Challenges,
- Reducing Demands.

a) Seeking Resources

Seeking resources, which refers to the behavior of seeking help or information, includes behaviors such as asking for suggestions from coworkers or managers, asking to be informed by being evaluated for one's job performance, or seeking learning opportunities (Petrou et al., 2012: 1122; Bipp and Demerouti, 2015: 632).

b) Seeking Challenges

This dimension involves the modifications that employees make in their job demands for more motivation. It also includes seeking new tasks upon the completion of a task or taking on more responsibilities (Petrou et al., 2012: 1122; Bipp and Demerouti, 2015: 632).

c) Reducing Demands

This dimension includes behaviors that target to minimize the mentally and physically challenging aspects of the job or reduce the workload and time pressure on employees (Petrou et al., 2012: 1123; Bipp and Demerouti, 2015: 632).

Up to this part of this paper, the concept of job crafting has been explained, and the classifications made in the studies on job crafting have been put forward. In the following parts of the paper, issues related to the predictors and outcomes of job crafting will be dealt with in line with studies conducted on the subject.

PREDICTORS OF JOB CRAFTING

In order for employees to exhibit job crafting behavior, their personal characteristics and the features of the working environment in which they work are important. As job crafting is made up of the adaptations employees make in their jobs by their own initiative, it has been a matter of interest what employees with what characteristics would display job crafting behavior in what situations. In studies conducted, it has been determined that the concept has a relationship

with issues such as proactive personality, person-job fit, five-factor personality characteristic, and self-sufficiency.

A proactive person is someone who is not restricted by situational powers and affects environmental change. Proactive individuals screen the opportunities, display initiative, take action, and insist on making the change. They are individuals who personally create an effect in their surroundings (Bateman and Crant, 1993: 105). In studies conducted on job crafting, it has been observed that individuals who have proactive personality characteristics display more job crafting behavior. In the study conducted by Tims et al. (2012), a positive and significant correlation was found between job crafting dimensions of increasing structural job resources, increasing social job resources, increasing challenging job demands and proactive personality and personal initiative (Tims et al., 2012: 183). Similar to the findings of this study, in the study conducted by Rudolph et al. (2017), all job crafting dimensions but the dimension of decreasing hindering job demands were found to be positively related with proactive personality. In other words, it can be claimed that employees who have proactive personality characteristic are more inclined to display job crafting behavior. In their study, Bakker et al. (2012) demonstrated that employees who have proactive personality characteristic were more prone to exhibit job crafting, and thus both work engagement and performances of employees would increase. In that study, it was determined that employees with proactive personality characteristic had a tendency to change their work environment proactively by activating job resources and job demands, which supported the results of previous research (Bakker et al., 2012: 1371). In another study, the probability of employees who have a tendency to be proactive to develop competences related to job crafting and their careers was shown to be high. Job crafting and career competences were also found to be associated with the welfare of employees (Plomp et al., 2016: 596).

Person-job fit is another factor that affects job crafting. In research conducted on fit, person-organization and person-job have been evaluated separately. Person-organization fit refers to fit judgements between the personal values of employees and the culture of an organization, while person-job fit is related with fit judgements between the skills of employees and the demands of a job. A successful employee is expected to display fitness regarding both the organization s/he works for and the job s/he performs as a whole (Cable and DeRue, 2002: 875). When employees realize that their skills and personal characteristics do not fit with their jobs, they can display job crafting behavior and start a change. Particularly employees who have proactive personality characteristic display job crafting behavior by making modifications to their jobs in order to increase their

fit with their jobs. In addition to the relationship between fit and job crafting, there is a positive correlation between fit and proactive personality (Ko, 2011: 65). A strong person-job and person-organization fit in an individual motivates the person in terms of creating more time and energy to display more job crafting behavior (Ko, 2011: 65). Kerse (2018: 952) stated that job crafting had a positive and significant impact on person-job fit, and that employees ensured more fit to their jobs by increasing their job crafting actions. Çevik Tekin (2021) determined a positive correlation between person-organization fit and job crafting in his study. In addition to studies showing that job crafting increased person-job fit, it was also seen that it could lead to certain negative results. In the study conducted by Sozber and Ergeneli (2019), it was determined that job crafting behaviors that individuals displayed in order to harmonize their interests and skills with their jobs led to job-family conflict. It was shown that the reason for this was that individuals had to spend more effort to achieve fit, and that the work stress that develop as they spent more time at work was reflected on their family lives (Sözber and Ergeneli, 2019: 3415).

Another concept that could be considered as the predictor of job crafting is the five-factor personality characteristic. Many researchers think that five factors constitute the basic structure of personality. These factors are neuroticism, agreeableness, extraversion, conscientiousness, and openness to experience (Zel, 2011: 25). In their study which they conducted in order to determine the role of five-factor personality characteristic on job crafting, Bell and Nijoli (2016) concluded that the personality characteristics referred to as neuroticism, agreeableness, extraversion, conscientiousness, and openness to experience could be used in understanding and predicting the inclination towards job crafting. In the study conducted by Rudolph et al. (2017), it was determined that job crafting dimensions of increasing structural job resources, increasing social job resources, and increasing challenging job demands were positively related with extraversion. While a positive relationship was found between the dimension of decreasing hindering job demands and neuroticism, a negative correlation was determined with the dimensions of increasing structural job resources and increasing challenging job demands. While agreeableness was positively correlated with increasing social job resources, and openness to experience was found to be positively correlated with increasing structural job resources and increasing challenging job demands dimensions, it was found to be negatively correlated with decreasing hindering job demands (Rudolph et al., 2017).

There is a positive relationship between self-efficacy and job crafting. Employees who have high self-efficacy are more likely to have more interest in job crafting, develop their skills and learn new things, take on extra tasks,

volunteer for new projects, and change the functional and relational boundaries of their jobs by requesting support and suggestion from their managers and colleagues (Miraglia et al., 2017: 265). Heuvel et al. (2015: 525) stated that guidance by the organization towards job crafting had the potential to positively affect employees' self-efficacy and welfare. In a study by Kim et al. (2018: 25), it was determined that creative self-efficacy positively affected each of task crafting, relational crafting, and cognitive crafting dimensions.

JOB CRAFTING OUTCOMES

Numerous studies conducted on job crafting have shown that the concept has begotten outcomes desired by organizations. It has been determined that job crafting has increased positive situations such as work engagement, job satisfaction, job performance, and well-being and has eliminated negative situations such as burnout and intention to leave.

Work engagement is among the most significant outcomes of job crafting. Work engagement is defined as a job-related mental status qualified with vigor, commitment, and concentration (Schaufeli et al., 2002: 74). Work engagement is also considered the exact opposite of burnout, that is, the positive state of burnout (Schaufeli and Bakker, 2004: 294). A positive relationship has been found in many studies between job crafting and work engagement, which is one of the most important factors that organizations want their employees to have. Tims et al. (2012: 183) determined in their study that work engagement was positively and significantly related with the dimensions of increasing structural job resources, increasing social job resources, and increasing challenging job demands. In their study, Petrou et al. (2012: 1135) demonstrated that employees displayed more work engagement when they were in search of more challenging tasks and when they decreased their job demands less. It can be stated that the positive and significant relationship between work engagement and increasing structural job resources, decreasing hindering job demands, increasing challenging job demands increases employees' positive emotions, energy, and motivation, enables them to use learning-development and skills, develops their job and personal resources, and prepares them for the negative conditions they may encounter (Uysal et al., 2018: 662). Tims et al. (2014) have stated that thanks to job crafting, employees can increase their levels of work engagement and job performance. Employees who experience work engagement by displaying job crafting behavior through job resources and challenging job demands spending their energy on in-role tasks is important for organizations (Tims et al., 2014: 925). In the study they conducted in order to identify the relationship of job crafting with work engagement and job satisfaction, Beer et al. (2016) have

revealed the importance of job crafting for work engagement and job satisfaction in organizations. The dimensions of increasing structural job resources, increasing social job resources, and increasing challenging job demands have been found to be significant predictors of work engagement. In a study conducted on healthcare professionals, it was determined that the condition where job crafting of nurses and doctors were the most beneficial was when they experienced high work engagement. Work engagement was also found to contribute to employees' decreasing their hindering job demands (Bakker, 2017: 325). In the same study, it was reported that increasing job resources dimension of job crafting was positively correlated with professional development, performance, feedback, and person-organization fit, especially when work engagement was high (Bakker, 2017: 326). To summarize, if employees' level of work engagement is high, they increase their job resources and display job crafting behavior (Bakker, 2017: 329).

Employees who proactively make changes in their working environment and in their job-related tasks are likely to experience positive emotions related to work. Employees who take action in terms of job crafting experience a positive, satisfying, and job-related mental condition through positive emotions. In general terms, these outcomes show the mediating role of work crafting in the positive cycle between positive emotions and work engagement (Costantini and Sartori, 2018: 217). In their study in which they aimed to determine the relationship between job crafting and work engagement in two study groups, one with managerial responsibilities and the other with no managerial responsibilities, Devotto et al. (2020) concluded that job crafting affected work engagement in both groups. Especially cognitive crafting was determined to affect work engagement strongly. Developing job crafting in organizations can be used as an effective strategy for increasing work engagement (Devotto et al., 2020: 875). In another study conducted, it was found that increasing structural job resources dimension of job crafting increased work engagement, while it decreased psychological distress; increasing social job resources and increasing challenging job demands dimensions were also found to increase work engagement (Sakuraya et al., 2017: 4). Karatepe and Eslamlou (2017) revealed that job crafting improved flight crew's work engagement. In conclusion, as can be seen in studies conducted, high work engagement is observed in employees displaying job crafting, and it mediates various positive conditions.

Another concept that results from job crafting is job satisfaction. Defined as the positive or negative attitude that an individual develops towards his/her job, job satisfaction is among issues considered to be important by organizations and researchers due to its significant relationship with behaviors such as motivation,

performance, job attendance, employee turnover rate, and organizational citizenship (Gürbüz and Yüksel, 2008: 179). In the study they conducted in order to determine the relationship between job crafting and job satisfaction, Leana et al. (2009: 1187) reported that there was a positive correlation between job satisfaction and the cooperative crafting dimension of job crafting, which they divided into two dimensions as personal crafting and cooperative crafting. In another study conducted on 355 hotel employees in Taiwan, job crafting was found to positively correlate with job satisfaction. According to the results of the same study, burnout negatively affects the relationship between job crafting and job satisfaction. It was also found that perceived organizational support had a mediating effect in the relationship between job crafting, job satisfaction, and burnout (Cheng and O-Yangi 2018: 82-83). In yet another study, it was stated that job crafting was significantly related with job satisfaction through the mediating role of perceived organizational support (Ingusci et al., 2016: 275). In the study conducted by Beer et al. (2016), while increasing social job resources was an important tool for ensuring job satisfaction for mining and manufacturing industry, decreasing hindering job demands negatively affected the job satisfaction of employees in mining industry. In another research, it was determined that increasing structural job resources positively affected job satisfaction; in other words, job satisfaction of employees who showed an effort to learn new things and improve their competences and skills and displayed behaviors in this direction was found to be higher (Kerse, 2019: 213-214). In another study in which it was revealed that what matters in terms of employees' job satisfaction was not the degree of job crafting but what boundaries of the job were changed, it was found that the two dimensions of job crafting, namely relational crafting and cognitive crafting, except the task crafting dimension, were related with job satisfaction (Kim et al., 2018: 25).

Job crafting is considered as the strategy of redesigning a promising job that can be used in order to increase employees' job performances and well-being (Gordon et al., 2018). In a study that supports this statement, it was concluded that job performance, job satisfaction, and well-being increased in direct proportion to job crafting (Dalgic and Turkoglu, 2018: 793). Tims et al. (2012: 183) stated that increasing structural job resources, increasing social job resources, and increasing challenging job demands dimensions positively affected work engagement, and that they were significantly associated with performance. In another study by Tims et al. (2013b), it was reported that job crafting would increase job performance through work engagement at both team level and individual level. It was also stated that actively increasing job resources and challenging job demands could be a valuable strategy for increasing work

engagement and job performance at both team and individual levels. It was further stated that the dimension of decreasing hindering job demands could negatively affect work engagement and indirectly individual performance (Tims et al., 2013b: 20). In their study, Guan and Fenkel revealed that employees who did their jobs by increasing job resources and decreasing hindering job demands had a tendency to demonstrate high performance. In addition, it was suggested that in performance evaluations, reward and incentives should be provided for job crafting behaviors that contribute to increase in performance. In another study in which the positive relationship between job crafting and job performance was determined, it was observed that employees who displayed job crafting behaviors received higher performance evaluation scores. Job crafters create a substantially efficient and encouraging environment for themselves by expanding their social and structural job resources and being involved in innovative and interesting projects. In this case, as a result of high performance scores obtained, employees motivation and job performances are rendered permanent (Miraglia et al., 2017: 265). Devotto and Wechsler (2019: 382) expressed that job crafting interventions created positive effects on employees' welfare and job performance.

Employees who displayed job crafting behaviors have effectively increased their job resources over time, and this situation has positively affected employees' well-being. Organizations should not only ensure employees' well being through adequate job resources and job demands at the optimum level, but they should also provide employees with the opportunity of job crafting (Tims et al., 2013a: 238). In the study conducted by Kilic et al. (2020a), it was determined that employees who displayed task crafting, relational crafting, and cognitive crafting experienced more emotional well-being. Employees who display task crafting, relational crafting, and cognitive crafting are more likely to experience more positive well-being. Furthermore, task crafting and cognitive crafting prevent negative situations related to the job. In addition, when employees find the opportunity to change their jobs in task-related, relational, and cognitive dimensions, they are more inclined to identify themselves with the organization (Kılıç et al., 2020a: 209).

Positive and desirable outcomes are obtained in employees who display job crafting, and undesirable situations are eliminated as well. In the study conducted by Kılıç et al. (2020b), it was concluded that employees who were psychologically empowered displayed more job crafting behaviors compared to others, and that employees who displayed cognitive crafting had more chances to maintain their jobs. Similarly, in the study conducted by Dalgıç and Türkoglu (2018: 793), it was reported that job crafting decreased employees' intentions to leave.

Burnout is related with the health of working life and is a situation that reduces the quality of working life and negatively affects work health (Survegil Dalgic, 2014: 13). Bakker et al. (2014: 391) stated that employees could decrease their perceived burnout and stress levels by changing their job demands and job resources according to the situation they experience. In another study, it was seen that the dimension of task crafting affected employees' emotional burnout at a negative level (Kerse, 2017: 297).

In the study they conducted in order to determine the predictors and outcomes of job crafting, Kim et al. (2017) found that perceived organizational support positively affected job crafting behavior, that task crafting led to relational and cognitive crafting, that relational and cognitive crafting increased employee-organization fit, and that employee-organization fit increased job satisfaction. In addition, increase in the level of employees' identifying themselves with the organization is among the factors that increase job crafting (Etlik et al., 2019: 134). In a study where the relationship between job crafting and psychological capital was examined, strong and positive relationships were determined between each dimension of job crafting and each dimension of psychological capital (Karabey and Kerse, 2017: 915).

In most of the studies conducted on job crafting, it is seen that the concept has been associated with either the individual characteristics of the employee or organizational situations. Differently from this study, in a study in which the relationship of transformative leadership with job crafting was investigated, it was determined that transformative leadership had a positive effect on general job crafting and its subdimensions. In other words, it was found that employees who perceived that their leader was a transformative leader displayed job crafting behavior or changed the boundaries of their jobs (Kerse and Babadağ, 2019: 140).

CONCLUSION

Today's employees have started to see the jobs they do as a tool that will make them feel valuable as well as a tool that brings them a financial income. More and more people have begun to understand the value of the job they do and have taken initiative in order to obtain different job meanings and experiences through active interaction with others (Peng, 2018: 1). In a world lacking meaningfulness, job crafting is considered as an important process in which employees develop meaningfulness and thus produce valuable outcomes for themselves and their organizations (Berg et al., 2013: 104). Job crafting develops creative and motivational aspects of employees who display proactive behaviors and improve their job experiences by changing their jobs. In addition, by concentrating on the positive outcomes of job crafting such as work engagement, commitment,

performance, positive meaning, and sense of self, it contributes to positive organizational psychology understanding. Positive organizational psychology field helps employees to bring out the functioning that suits them the best through job crafting by trying to understand the condition where employees feel the best while doing their jobs (Wrzesniewski et al., 2013: 282).

Job crafting, which is started by employees in their jobs voluntarily, can be defined as the process of harmonizing the job with the skills and desires of employees. Performing the jobs that are always done in the same way with different methods and in different time intervals is important in terms of fighting against burnout experience by employees and other negative situations. Employees can increase their level of job satisfaction by feeling the control in their hands in their professions through even minor changes they make to the way they handle the job. Management should provide the necessary support and flexibility for this (Sürgevil Dalgıç, 2014: 155-156).

Job crafting can create both positive and negative situations in some cases for both organizations and employees. At this stage, managers should avoid job crafting practices that create negative outcomes and encourage job crafting practices that yield positive outcomes. At this point, managers should accept that effective job crafters essentially use their jobs as a resource in order to achieve desired outcomes. Unlocking and encouraging such job crafting is the key to obtaining the benefits of job crafting (Berg et al., 2008: 7-8).

To conclude, the job commitment levels of employees who display job crafting behavior can be higher through the changes they make to the style of doing their jobs or relations. Hence, job crafting can be evaluated as an important tool that today's managers can use in ensuring organizational success they are trying to increase and employee motivation. Actively using this concept, whose recognition is tried to be increased through theoretical studies, in working life as well will bring along numerous positive outcomes. It will be useful for organizations to be open to such practices as job crafting in order to use human resources that form their most important capital with maximum efficiency. It is believed that studies conducted on different subjects not associated with the concept will contribute to the field and increase the recognition of job crafting more.

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Chapter 7

Understanding Atypical Development Through The Abilities Of Individuals With Autism Spectrum Disorder And Williams Syndrome

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A developmental disorder that may occur at birth or up until eighteen prevents a typical development by impairing the growth of cognitive, emotional, social, and physical abilities. The impairments might arise from various sources and can be both the cause and/or result of a developmental delays with protracted effects that continue through adulthood. The perception of developmental disorders has changed over the years by the enhancements in medicine and developmental psychology. The methods that allow screening of human brain, such as fMRI (Frith & Happe, 2005) or decoding DNA broaden the explanations of disorders through genetics, brain deficits, and environmental influences. A developmental disorder may be seen as a delay in learning new abilities and behavior or not obtaining a specific skill.

The link between a developmental disorder and its causes is not a simple one to explain. This chapter will consider the notion of developmental disorders according to Frith's (1992) developmental disorder model. This model builds a link between biological causes, brain abnormalities, and cognitive deficits that may be related to core problems observed at an individual's experience, maturation, compensation, and motivation levels. Many developmental disorders cannot be explained only by biological origin due to the reciprocal individual-environment relations. The neuroconstructivist model aims to explain the complex nature of disorders in which one deficit may be understood based on different domains in the brain (Karmiloff-Smith, 2009). As a reference point, neuroconstructivist approach will be this chapter's basis to describe the ability profile of Autism Spectrum Disorders (ASD) and Williams Syndrome (WS). Those two disorders will be described based on the biological ground, and the cognitive, social, and communication abilities will be discussed. Theoretically, comparing two disorders is intended to gain a more comprehensive view and explain how modular or constructivist views differ.

When studying the relationship between symptoms and causes of a disorder, the comparison is mainly made with typically developing individuals. The contrast between developmental disorders and typical development is generally the starting point for understanding the nature of atypical development. However, a different point of view should be considered. Some researchers may view the atypical development as a result of only the biological deficit and may suggest that a module is responsible for a specific ability. On the other hand, newer approaches such as neuroconstructivism lighten up other factors. According to this approach, a specific place in the brain connected with a shortcoming of skill influences the individual's development because the stimuli that a person takes from the environment differently and processes unusually.

Autism Spectrum Disorders and Williams Syndrome will be discussed in this essay because of the appearance of the opposition to the observed opposition of impairments in some aspects. Autistic children's general problem is mainly acquiring language; however, children with Williams Syndrome are seen as very competent in their linguistic abilities (Bellugi et al., 2000). People with WS are known to be empathic toward others' emotions. Nevertheless, autistic individuals are known for their negligence toward others and the outside world. However, both are less skilled in understanding *intentionality* so the explanation might be the incompetent theory of mind abilities (Baron-Cohen, 2004; Frith & Happe, 2005). Keeping in mind the contrasts of these disorders, they also share some similar problems with joint attention and focusing on details (rather than the whole).

The complexity of developmental disorders arises from their multiple causes, and the different functioning levels of individuals make it hard to understand them. The incompetence that comes with developmental disorders are tried to be explained for decades, and the early explanations were mostly a single cause for various problems. However, such a limited casual relationship is inadequate for studying the ability profiles of individuals with different levels of impairment. One of the reasons why a singular explanation is not useful anymore is that cognitive, language, and social skills cannot be traced back to only one place in the brain. The current theoretical approach is the multiple deficits in genotype and their multilevel effects on phenotype (Brookes & Robinson, 2015). For instance, individuals with ASD seem to have trouble acquiring the language, resulting in trouble with communication and social skills. However, there might be different underpinning deficits (e.g. face recognition) for such skills, and linguistic problems might be the extension of those instead of the cause (Karmiloff-Smith, 2009). Studies on face perception, which are examined according to age, show that babies with autism look at human faces less in the first two years of their lives, unlike typically developing babies (Osterling et al., 2002). Although there are not many studies in which the facial perceptions of children with autism can be observed directly due to the difficulty of accessing video recordings retrospectively and the scarcity of longitudinal studies, the attention of individuals with autism to the human face is generally very limited in the later years of life (Kikuchi et al., 2009).

Autism Spectrum Disorders (ASD)

First, general profiles of ASD will be presented. *Autism* is a neuro-developmental disorder characterized by impairment in non-verbal communication, social interaction, stereotypical patterns of behavior, and

impaired understanding of the mental states of others (Baron-Cohen, 2004; Frith & Happe, 2005). According to the American Psychiatric Association's diagnostic and statistical manual (DSM-IV), autism is the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activities and interests (American Psychiatric Association, 1994, p.66). ASD is diagnosed according to the individual's behavior patterns and abilities across the tasks. Due to the diagnosis based on the performance of different types of abilities, individual differences and the causal relationship between the syndrome and the behavior is hard to establish. One-year-old child, who is deviant from the typical social, communicative and cognitive development and shows particular delay in those developmental areas, can be diagnosed with Pervasive Developmental Disorder (PDDs). PDD includes the autistic spectrum of behaviors to describe deviance from normal development (as cited in Bradshaw, 2001).

Under the umbrella of PDD, individuals with ASD are defined according to their level of functioning. Although IQ is one of the measurements to define the individuals' ability level, the IQ levels of individuals with ASD might be varied. IQ is calculated based on mental and chronological age. In addition, individuals' verbal and non-verbal task scores can be different and change the result IQ score (Liss et al., 2001). Moreover, the selection of the participants from the autistic population for the studies does not help to define a clear line about the ability profiles due to the lack of homogeneity of high- and low- functioning ASD individuals (Bradshaw, 2001).

The prevalence of ASD has been increasing in the last decades, in which recent studies reveal that the prevalence of overall ASD might reach the highest level of 30 to 90 per case 10,000 (as cited in Charman & Baird, 2002; Baird et al., 2006). In addition, the syndrome is more common in the male population with 1:4 ratios (as cited in Bradshaw, 2001). When ASD is discussed, the abilities of the individuals with ASD and the comparison to both typical development and other disorders should also be mentioned. In the following section Williams Syndrome will be presented in this vein of logic.

Williams Syndrome (WS)

As a genetically based neurodevelopmental disorder, Williams Syndrome is explained by behavioral and cognitive phenotypes derived from studies investigating the onset abilities. The microdeletion describes the cause of the disorder as on the long arm of chromosome 7 at q.11, 23. The area responsible for vascular abnormalities, spatial deficit, specific chemicals released in the brain,

and cell signaling within cells during the development is located (Karmiloff-Smith, 1998). The prevalence of WS is 1 in 20,000 live births, and the individuals with the syndrome have been born with cardiovascular and renal problems, distinctive facial dysmorphia with full lips and cheeks, wide mouth, flared nostrils, and dental irregularities (Bradshaw, 2001). In addition, individuals with WS build up competence in language with hyper sociability and face processing ability. However, these are accompanied by deficits in visuospatial skills, executive functions (EF), and overall lower IQ (Karmiloff-Smith, 1998; Bellugi et al., 2000).

Profiling the abilities of the WS brings the issue of domain-specific and domain-general abilities in the brain due to its distinct nature with lower IQ and preserved verbal abilities. In many studies of developmental disorders, mental age is the variable used to match the subject groups while comparing the abilities of the disorder group with the typically developing groups. While calculating the mental age, verbal and mental age is one of the common constants because the cognitive abilities' probability of being mediated by the IQ (Karmiloff-Smith, 2009) should be considered. In the case of investigating the social and cognitive abilities of the WS, the relationship between the cognitive processes and the language skills should be described precisely. In general cognitive functioning, Bellugi et al. (2000) noted that individuals with WS have a severe and consistent impairment in general cognitive functioning when they are tested by verbal and nonverbal standardized conceptual and problem-solving tasks. In general cognitive tasks, IQ scores distribution of WS rank in the mild-to-moderate mentally retarded range with a mean of 55 IQ points. It is also added that arithmetic abilities are tough to grasp by individuals with WS. Moreover, reading may be very challenging for some, but others might be knit readers of books and magazines in a particular context (Bellugi et al., 2000)

Theories of Explaining Disorders

The different impairments in socialization, behavior, and communication can be explained by the three main cognitive theories, which are the Theory of Mind Deficit (ToMD), Executive Dysfunction (ED), and Weak Central Coherence (WCC) (Rajendran & Mitchell, 2006). Those main theories try to explain autistic behavior patterns according to brain mechanisms. For example, a researcher who investigates the theory of mind looks for deficits in gaze following, false belief, and appearance-reality that may cause the ignorant pattern of autism. Executive Dysfunction theory works on impaired planning, working memory abilities, behavioral flexibility, and inhibition ability. Finally, the weak central coherence

theory tries to explain social prevention and attention disabilities through problem-solving method relatedness (Rajendran & Mitchell, 2007).

Theory of Mind Deficit (ToMD)

When we look at the two disorders taken in, both have their own weakness in adjusting to everyday life that we find easy to engage through the abilities we have gained since childhood. A young infant starts to learn new things by looking at the environment and the behaviors of others. Then he tries to communicate with others to enlarge his knowledge about the outside world and other people. Understanding and giving meaning to other people's acts and perspectives are essential sources of information for human infants. This ability is called the theory of mind and is considered one of the main cognitive structures for building regular social interaction and communication skills (Baron-Cohen, 2001). The limited social competence is a central diagnostic behavior in ASD which is seen as impairment at social interaction, lack of social smile, lack of appropriate facial expressions, ignoring people, lack of eye contact, and lack of pointing (as cited in Charman & Baird, 2002).

Many researchers take the causal link between social impairment and autism to investigate whether a specific module in the brain is responsible for all human communication skills. In one perspective, autistics seem to suffer from interpersonal relatedness, which causes their reluctance to read emotional cues and imitation abilities (as cited in Frith & Uta, 1996).

The difficulty of understanding other people is the theory of mind deficits. In ASD, individuals' struggle to represent others' minds may be due to a specific deficit in the theory of mind domain in the brain. Many high-functioning autistics could pass the first-order false-belief tasks in which the intentionality of one person is generally questioned. However, when it comes to the second-order false belief task, one person's intentions about another are asked. Still, some autistic could pass these kinds of tasks (Baron-Cohen, 2001). Moreover, although the performance of autistic children on the theory of mind task is way poorer than their mentally aged equivalents, their performance also gets better as they grow. These results provoke the idea of whether a theory of mind abilities is distorted in autism or is a delayed ability.

Moreover, it makes us think about the universality of a disability used to diagnose autistic behaviors (Tager-Flusberg, 2001). Another clue for suspecting that autistics might have distorted ToM abilities comes from the joint attention studies because the ability of joint attention is related to early social interaction. Children must engage in a reciprocal relationship with others to learn the

language and act appropriately in socially united groups and play. They start to show joint attention with eye contact with a caregiver, produce their social smile and imitate the mimics, then follow the gaze directions and do the pointing and showing objects. After all those pre-linguistic communications acts, they start to use language accompanied by the abilities already used. Autistics do not use as commonly as typically developed children the pointing behaviors and the gaze following strategies to engage in social interaction. Pointing behavior might be considered declarative or imperative while explaining autistics ToM abilities. Even if they produce pointing behavior, it may not be because of sharing an interest with another person who might be seen as a representation of others' mental state. They mostly imperatively use this behavior: a request for an object that does not involve any representation of understanding other's mind.

Stone et al. (1997) revealed that autistic children are reluctant to use contact or conventional gestures. However, they highly tend to use an unconventional gesture which is, rather than talking or pointing, taking the hand of a person who is an object of interaction and putting the hand on a wanted object. The imperative way of pointing out behavior shows the self-centered nature of autism. Moreover, the ability level of the autistics defines their spontaneous gaze following success in which high-functioning autistic children with a standard range of verbal and mental age are good at following the gaze spontaneously. On the other hand, low-functioning autistics' performance on spontaneously gaze following was worse than the children with developmental delay matched with them based on mental age. (Leekam & Moore, 2001). This information implies that the variance of mental abilities of autistics defines their different range of performances on ToM-related abilities; however, it makes it confusing for the scientist to understand the underlying cognitive onset responsible for the deficit.

Autistics' ability on ToM indicates that they are incompetent to understand intentionality in conversations, suffering from understanding gestures, mimics, and facial expressions. In the expression and production of affective responses, children with autism have difficulties. They also show reluctance when confronting a distressed adult. These reflect their lack of representation of others' mental and emotional states; additionally, they are not competent at imitating emotional facial expressions (as cited in Volkmar, Chawarska, & Klin, 2005). As if a specific place in the brain might drive a biological deficit, their disability in understanding facial expressions and emotions. The emotional expressions are connected to the amygdala. Amygdala is the brain's emotional learning, memory, and social information processing center. If there is a developmental deficit in the amygdala, the possibility of having impairments in social judgments and

recognition of facial emotions might be seen. Facial expressions are frequently associated with activity in the superior temporal sulcus (STS). Neuroimaging evidence suggests that amygdala activation has been detected in fearful faces ages 12-17 and reports no effects of age or sex. (Golarai, Grill-Spector, & Reiss, 2006). Another study compared amygdala activation to fear and neutral faces and found that for adults amygdala responded more to fear faces than neutral faces. In children, the amygdala responded more to neutral faces (Golarai et al., 2006). The number of stimuli of faces exposed and habituation to specific expressions helps to develop children's recognition of facial expressions because early contextual information is essential for the discrimination of emotional expressions.

The components of ToM are the false-belief tasks for intentionality, and the joint attention to engage in social interactions is interlinked with other constructs such as executive functions and language. Children show the primitive ability to interpret desire, emotion, and perception at around the age of 2 to 3 without becoming mastered in understanding belief or epistemic states. With the growth of appreciation of others' mental states, their abilities in language change; thus, as good conservationists show more sensitivity to their listeners (Tager-Flusberg, 2001). Even though social abilities and language might be seen as distinct domains of cognitive abilities, their development is interlinked and that may be one of the reasons for struggling with both. The autistic individual's performance on the false-belief tasks might be determined according to their language competence based on the verbal and mental age-matched group. The relationship here can be explained in two ways. The individuals might pass the false-belief task because of an understanding intentionality domain in the brain. Alternatively, individuals depend on their relatively better language skills and comprehension to pass the task (Frith & Happe, 1994).

Executive Dysfunction (ED) and Weak Central Coherence (WCC)

Executive dysfunction theory, on the other hand, explains autism according to its shortcoming of abilities in problem-solving in both social and cognitive situations. Perseverative behaviors, the rigidity of acts and thoughts, looking for rituals, and the need for sameness are the behaviors that can be seen on the general behavior scale of autism. Looking at autistic's behavior patterns in EF are shaped by the abilities of planning, working memory, flexibility and impulse control, and inhibition of action, which are managed by the prefrontal cortex (Hill & Frith, 2010). As is also stated in Martin and McDonald's (2003) review, the abilities of concept formation and abstract and inferential reasoning are mediated by the frontal lobes.

The executive function system regulates human behavior by providing flexible cognitive abilities in various conditions and tasks. The ability of autistics on executive function can be measured through some sub-skill designed tasks such as planning ability, mental flexibility, inhibition tasks, and self-monitoring tasks, as reviewed by Rajendran and Mitchell (2007). By using the Wisconsin Card Sorting Task (WCST) for flexibility of perseverative response, the Tower of Hanoi task (TOH) for planning, and the Stroop Test for inhibition; Ozonoff and Jensen (1999) reported that ASD individuals performed poorly at WCST and TOH. However, at the Stroop task, they performed similarly to the mental-age matched group. 39 of 40 autistic participants showed poor performance in at least one of that tasks. Another result from their study was that younger individuals with ASD demonstrated poorer performance on more tests than the older autistic subjects. However, the results from EF studies demonstrate the deficits in these cognitive skills. The consistency of the results from deficiency on EF ability of autistics has not been established. Although theory explains the perseverance in the behaviors and difficulty of planning and inhibition, the universality of the disability is still questionable. For example, Liss et al. (2001) found that when they used verbal IQ as covariance while they compared the performance of high-functioning autistic subjects on WCST with a typically developed group, the difference in the perseverative errors between groups disappeared.

The executive functions comprise complex mental processes and are responsible for perseverative behavior. EF is the ability of central coherence which leads everyday communication and routines and. The lack of EF skills is one of the cognitive deficits of autistics that can be also observed their focus on the details in a given context rather than the whole (Pennington, 2006). Embedded Figures Task (EFT) and Block Design subtest of the Wechsler IQ are the tasks mainly used by the studies which are trying to figure out the autistics' attention ability over segments of a bigger context (Rajendran & Mitchell, 2007). In this view, from the point of autistic's superior attention to focusing on details is used to explain their challenges in everyday life's social and cognitive tasks. The weak central coherence might be responsible for ASDs to fall behind in understanding emotions and intentions. Since when they need to focus on the facial expressions, voice, and language, they may have been focusing on the irrelevant parts of the face or one word in a sentence rather than the whole or just focusing on one of the things mentioned to be able to have an integrated understanding (Frith & Happe, 2005).

Under the shed of given different explanations for the cognitive deficits in ASD, it is clear that much research is devoted to understanding the underlying

mechanisms of the deviant ability profile of the individuals. However, the controversial results and the complex nature of even the simple ability due to the reciprocal relations and mediating effects of each developmental skill leaves the area grey when an issue comes to the defining characteristics of ASD.

As it is with ASD, the ability profile of the WS individuals is also a source of knowledge to understand developmental disorders. Interestingly, competent linguistic abilities at WS are a controversial issue in explaining the modularity of language. Due to the intactness assumption language. The semantics and the pragmatic usage of the language vary among WS individuals. Bellugi et al. (2000) present that the information collected from the WS demonstrates highly impaired cognitive skills but an exquisite level of language that may prove to dissociate the domains for language and the other cognitive abilities. However, Mervis and Becerra (2007) brought up the view against Bellugi's by stating that the variance between individuals of WS in language abilities should be studied to understand the language strength in WS. Dividing the language ability into its components and the performance at each level should be examined to fully understand the skills of individuals with WS in the language. Individuals with WS are known to have a very rich vocabulary span, and studies of English-Speaking children with WS demonstrated the highest mean scores on the concrete word vocabulary version of the Peabody Picture Vocabulary Test (Mervis & Becerra, 2007). Main arguments about the language abilities of the WS arise from the issue of the intactness of the language ability domain in the brain. However, the receptive and expressive language ability differences are helpful concepts for understanding the actual language performance of the WS. Karmiloff-Smith et al. (1997) suggested a different performance of WS subjects on the morphosyntactic and syntactic rules. They show poor performance in understanding syntactic structures that cannot be observed in an intact language at the WS. This contributes to the argument of there is not one specific domain or module for language because the complex nature of development cannot be explained by the one causal relationship in which the interaction between deficit and environment. In the same study, individuals with WS have a different brain temporal pattern while processing language-based activities. Therefore, the disassociation from WS or any developmental disorder research might not represent the typically developed brain mechanisms.

Observing the performance of viewing social scenes, Riby and Hancock (2008) showed that individuals with WS and Autism have different patterns. Autistic individuals spent significantly less time viewing the actor's faces. In comparison, the WS participants viewed the faces of the actors longer, which

might be a meaningful clue about the sociability of WS and their way of collecting information socially from the facial expressions of the people.

The general profile of children with WS is socially active, good at face processing, empathic, and verbally competent. Based on this profile, the theory of mind performance of WS individuals may be presumed to be relatively better than or at least similar to their mental-age matched developmentally delayed and typically developing peers. Therefore, showing the relationship between the traits of the WS and the ToM skills might help draw a mental structure for the domain of ToM. However, despite the predictions, it is shown that children with WS in the study of Tager-Flusberg and Sullivan (2000) did not perform better than the comparison groups of developmentally disordered others and the typically developed groups. Additionally, when the number of children who passed the tasks was non-parametrically analyzed, it was revealed that the WS children performed significantly poorer than the control group.

On the other hand, Santos and Druelle (2009) found controversial ToM ability results from relatively older teenage individuals with WS. Their results demonstrated that if participants were given verbal false-belief tasks, the WS group performed as well as the control group. However, if the task was formed in a visual modality, the performance of the WS group was impaired. Therefore, the results from this study may imply that the ToM abilities such as understanding intentionality or ability to other's emotional and mental states could be restricted to their verbal ability processes, and the ability of ToM may be improved with age also. Moreover, the poor performance on the visual false-belief task of the participants with WS is another proof of their impaired visuospatial abilities because they might perform well at the visual task due to struggling the understand visual stimuli.

Conclusion

In this review, a critical point of the developmental disorders as an informant about the nature of atypical development is discussed through the Autism Spectrum Disorders and Williams syndrome. Both these conditions are varied by their starting points at biology, behavior, and cognition. As mentioned before, the cognitive deficits and daily handicaps of the autistics are studied by different approaches, which try to locate the source of the problem by bridging the behavior and the corresponding brain region or mechanism. Like autism, Williams Syndrome also has its weakness, such as poor visuospatial skills besides the strength of better abilities at face processing and language and social abilities.

As biologically determined disorders, both ASD and WS have a genetic onset. However, there is no direct relationship between the genes in the deficits because the individual variability in each cognitive, social, and language skill differs the ability profiles and the self-sufficiency of the individuals with disorders.

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Chapter 8

The Effect Of Enriched Turkish Language Activities On Spoken Language Development Of 4-Year-Old Children

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Introduction

Language is the most powerful means of communication a person uses to express himself and his environment, to develop ideas, to transfer information about the events seen, perceived and experienced, to hand down various cultural accumulations to next generations, to communicate with other people and to express and understand his feelings. (Erdoğan, Bekir, & Aras, 2005: 231-246). Pre-school education is a process of care, education, learning and cultural transfer, starting from early childhood to the beginning of primary education, forming the basis of human life, determining and supporting the developmental direction of all developmental areas. Beginning in infancy, sensitive care and language-rich interactions have been associated with better developmental outcomes and, more specifically, stronger early language development (Tamis-LeMonda, Bornstein, & Baumwell 2001; Bağcı-Ayrancı, 2018; Uyanık & Kandır, 2010). Especially in early childhood, it is known that human beings enter into a spiral that negatively affects the whole life due to many reasons such as the inhibition of language development and the inability to receive appropriate stimuli (Aydoğan & Koçak, 2003; Kol, 2011).

Language skills begin to gain great momentum between the ages of 0-6 years and there are critical/sensitive periods in children's development. Critical/Sensitive periods are the periods when interest in a certain skill is most intense. Epstein (1995) listed these sensitive periods as follows: "movement" from birth to 1 year old, "language" between the ages of 0-6 years, "small objects" between the ages of 1-4 years, "music" between the ages of 2-6 years, "grace and courtesy" between the ages of 2-6 years, "refinement of the senses" between the ages of 2-6 years, "writing" between the ages of 3-4 years, "reading" between the ages of 3-5 years, "spatial relationships" and "mathematics" between the ages of 4 and 6 years. Language development at 4 years is based on a great deal of language background. The greatest progress in language development occurs between ages 2 to 5 years. This is a critical period for both first language acquisition and academic language development (Montessori, 2015). Ages 2 to 2,5 years are considered to be the basic development period. Until 4,5 years old, the child builds himself up engaging in details (Montesori, 2016: 60). A child can create simple sentences at the age of 2, and when he turns 6, he can start to use complex syntactic structures such as negative, interrogative and affirmative sentences. During this period, the child's vocabulary expands considerably. A 2-year-old child's vocabulary might include 272 words, while a 6-year-old child has a vocabulary of approximately 2,500 words. The increase in the number of words, along with cognitive development, is an indicative of the richness of stimuli and the mastery of grammatical structures (Maviş, 2011: 23-48).

Education and experiences in the first years of life play a significant role in a child's learning ability and success in later years. At the heart of the child's language development is the need to communicate, attract the attention of others and communicate their needs, feelings and thoughts. Language is a behavior that takes the child away from his ego, enables him to become a social individual, allows him to control and follow himself, teaches gradually about his thoughts, feelings and behaviors and helps him feel safe and secure (M.E.B, 1993: 232; Yavuzer , 2017: 4) .

Although children are different from adults in many ways, there are surprising similarities between learners of all ages. However, there is a direct relationship between contributing to the development of children's early learning skills and the opportunities offered to them. Children can learn how to use certain basic mental functions like language use and literacy with the help of experienced adults and peers around them. Around the age of four, when one is vulnerable to prejudices in society, the books read to children and the expressions used by adults should completely be free of prejudice (Derman Sparks, 1992; Bredekamp, S, 2015:160). Regarding the social structure of language and thought, Vygotsky's concept of "Zone of Proximal Development" exactly explains that. This is the period between a child's independent problem solving within the framework of his natural development and his problem solving under the supervision or cooperation of adults. Children are very likely to be more successful when learning the language if they are supported by someone more capable than them. This support given to them by individuals more talented is described as "Scaffolding" (Galda, et all; 1997: 23-31). The way preschool teachers approach to Turkish Language Activities affects children's language development progress.

The success of language development depends largely on creating opportunities for children to talk a lot. Home or school environments are centers where these opportunities can be created and these places have a significant part in children's life. In both environments, children can benefit from all kinds of talks or conversations involving objects, events or topics that interest them. Care must be taken to ensure that these conversations are critical, without prejudice. "Turkish language activities" in preschool programs are structured based on the developmental tasks and needs of children with the notion of program development. Bilici Turan (2005) reported in his research that there was a significant difference between the level of preparation for Turkish language activities and the levels of pre-reading, while-reading and post-reading activities, and also between the level of post-reading activities and the levels of pre-reading and while-reading activities. In the study carried out by Güneyli& Eray Alışkan in Cyprus, it was seen that "teachers mostly use books and book corner for

Turkish language activities, choose school as conversation topic, prefer direct-instruction method, usually use nursery rhymes and prefer observation as an evaluation technique. (2016: 348-371) Accordingly, it can be concluded that there are no post-reading activities that children can take part in. This emphasizes the importance of planning Turkish language activities and the need for carefully prepared language activities.

Language not only allows children to communicate with others, but also helps them perform many tasks in their daily life. It helps them improve their memory and classification ability in cognitive processes, assess their own behaviours, especially in the face of a difficult and new problem faced, and come up with solutions with their own cultural values. Learning to understand, use and enjoy language is the first step of literacy and the foundation of learning to read and write. It is a well-known fact that children who attend a preschool have a better language development than those who do not. A rich language input is required, both in quality and in quantity, for children to make progress in their language development in early childhood. In order to contribute more to their language development, new planned and enriched practices are required for preschool institutions.

Turkish Language Activities

Turkish language activities in preschool are aimed at ensuring that children speak Turkish correctly and effectively and these activities support their vocabulary development. Preschool Turkish language activities should start with a well-planned process and support all developmental areas of the child. Turkish language activities are carried out in three steps: pre-reading activities, while-reading activities and post-reading activities.

Pre-reading Activities: These activities, which are performed to attract children's attention to the story time and increase their motivation, include finger games, nursery rhymes, riddles, poems, group conversations and so on (Ünüvar, 2006, s. 40). Not all of these activities should be included in the daily education program at the same time, but several of them should be selected. Nursery rhymes, finger games, poems and riddles are usually used before story reading, but they can also be used during the transitions between activities and sometimes during the activities (Ceylan & Beşir, 2020: 301-327).

A story is a type of literature describing events that come out of life, with one or more protagonists, and deals with real or real-like events. In stories, the language used and the lively and vivid narration are also important. As imaginary elements are not used, the plot should be narrated in a lively and vivid manner through its narrative feature. Happy endings and surprises in the stories will make

the plot vivid (Dilek, 2020, s. 261-299). Different techniques can be used when telling stories. Presentation can be done using flashcards, flannel boards, reading from storybook, simple narration, puppets and masks (Temiz, 2002).

After-reading Activities: When the story reading is completed, drama activities such as dramatization, pantomime, question – answer strategy and role-playing are performed with children with the aim of retelling the story. These activities will give the child an opportunity to move freely and interpret in his own mind what he has understood from the story. Kirk (1998) argues that the stories told to preschoolers and the dramatization of the stories by children contribute to children’s language development Ünüvar, (2006: 42). In addition, post-reading activities can be used to assess children’s language performance. Assessment in early childhood education focuses not only on outcome, but also on the behaviors that lead directly to success. Assessment can therefore be defined as an inclusive and integrative process that continues in the whole educational process (Gullo, 2005). In other words, assessment is the process of collecting, synthesizing and interpreting information about classes and teaching children. Assessment is an important tool not only in understanding and supporting the development of young children, but also in documenting their progress and determining the effectiveness of the curriculum (Epstein et al., 2004).

Enriched Turkish Language Activities Program

The “Enriched Turkish Language Activities Program”, which consists of three steps, covers various activities that can be done in each step. These steps are pre-reading, while-reading and post-reading activities. The first step includes activities of drawing attention and focusing attention to the story hour/time. Pre-reading activities start with a conversation, and finger games, nursery rhymes or poems, riddles, jokes or memories can be utilized to warm up children. Just before reading the story, the story book can be introduced to children by showing and telling them the name of the book or the writer. Story hour/time takes place by reading or telling the story and showing pictures to children. For the post-reading step, question and answer strategy can be used and the story can be shortly summarized alongside the pictures. One or several of the techniques such as story completion, drama, role-playing, imitation, pantomime, animation or improvisation can be carried out with children.

Finally, an assessment is made with children and the question and answer method is used so that children can get a better comprehension of the story. Questions can be directed such as “what is the name of the story? Which heroes

are in the story? What are their names? How did you feel in the imitation game? Which activity did you like the most in the Turkish language activity?

The “Enriched Turkish Language Program” includes three steps and it covers various activities that can be done in each step. These steps are pre-reading, while-reading and post-reading activities.

Method

Research Design

In the research, one of the true experimental designs - the pretest/posttest control group experimental design - was used. In pretest-posttest control group design, there are two groups formed by random assignment. Pretest and post-test are administered to each group at the start and end of the intervention program. Pretests help to know the degree of similarity of the groups before the intervention program and to adjust the posttest results accordingly Karasar, (2012). “The Enriched Turkish Language Activities Program” was administered once a week for six weeks. Following the program, the experimental group was post-tested in order to see the effect of the program (independent variable).

Participants

When selecting children, it was taken into account that they all came from the same socio-economic background and the children in the experimental and control groups were in the same age group. Experimental group included eight students attending the University Applied Nursery School in the 2019-2020 academic year, and in the control group, there were eight students from KK Nursery School. Children in the experimental and control groups were selected from the schools where the students of SUSBFÇĞ receive their on-the-job training. Distribution of experimental and control groups by age was presented n Table 1.

Gender	Experimental Group		Control Group	
	N	%	N	%
	N	%	N	%
Girls	3	37,5	5	62,5
Boys	5	62,5	3	37,5
Total	8	100	8	100

Data Collection Tools

In order to measure the impact of spoken language skills, “Spoken Language” subtest of the “Basic School Skills Inventory-3” (BSSI-3) was used in the study. BSSI-3 is a valid and reliable test developed by Hamill et al. in 1998. (Yıldız, Çağdaş, & Kayılı, 2020). BSSI-3 consists of six subtests (Spoken Language, Reading, Writing, Mathematics, Classroom Behaviour and Daily Living Skills) which measure early abilities in six areas in children aged 4 to 6 years old. Spoken Language is a 24-item subtest that provides information on how children child expresses themselves orally and whether they have the skills in spoken language that they should demonstrate depending on their age. The areas tested are mostly focused on the content of sentences that children produce while speaking. Spoken language test shows whether a child can use words for his age, produce grammatically correct sentences while speaking, pronounce the words correctly, answer comprehension questions after listening to stories, ask questions using correct sentence structures, retell four or more story events in the correct order after listening to the story and ask situational questions. It also provide information about for what purposes the child uses the language and how effectively he can communicate his ideas while speaking in public. Each item in the test demonstrates an ability in spoken language (Hammill, Leigh, Pearson, & Maddox, 1998).

Data Analysis

Present study was undertaken to see the effect of "Enriched Turkish Language Activities Program" on the spoken language levels of 4-year-old children attending a preschool. The scores children in the experimental and control groups got in spoken language test were transferred to the computer and analyzed with SPSS. Two non-parametric tests, Mann Whitney U and Wilcoxon Signed Rank Test, were used for the analysis of the data obtained from the “BSSI-3/Spoken Language Test”. The data were analyzed with appropriate techniques to test the hypotheses predetermined for the purposes of the research (Büyüköztürk, 2019).

Results

This section presents information about the research hypotheses. Before the "Enriched Turkish Language Activities Program" was provided to the experimental group children for 6 weeks, a comparison was made between the BSSI-3/Spoken Language pretest mean scores of the children in the experimental and control groups.

In order to determine whether "Enriched Turkish Language Activities Program" provided to the children of the experimental group affected their spoken language skills, the BSSI-3/Spoken Language post-test mean scores of the children in the experimental and control groups were compared.

Findings related to these comparisons are given below.

1.1. There is no significant difference between the BSSI-3/Spoken Language pre-test mean scores of the children in the experimental and control groups.

To test this hypothesis, the Mann Whitney-U test was used to find out whether there was a significant difference between the BSSI-3/Spoken Language mean scores of the children in the experimental and control groups at baseline. The results obtained are presented in the table below.

Table 1. Results of Mann Whitney-U Test for pretest scores of the groups

Group	N	Mean Rank	Sum of Rank	\bar{x}	U	p
Experimental	8	7,38	59,00	42,82	59,00	,344
Control	8	9,63	77,00	44,25		

As can be seen in Table 1, the mean rank was found to be 7,38 for the children in the experimental group and 9,63 for the control group. Accordingly, there was no significant difference between the groups regarding Spoken Language mean scores (U=59,000, $p>0.05$) $p= .344$). It was therefore concluded that groups bore a similarity in their spoken language skills at baseline. Both experimental and control groups were at the same level concerning their spoken language development. For that reason, “Enriched Turkish Language Activities Program” was implemented with the experimental group children. Children in the control group continued to do Turkish language activities included in their regular preschool education.

2.1. The BSSI-3/Spoken Language post-test mean scores of the children in the experimental group were significantly higher than their pretest scores.

For the second hypothesis of the research (hypothesis 2.1), Wilcoxon Signed Rank Test was performed to see whether there was a significant difference between the pretest and post-test mean scores that children in the experimental group got in BSSI-3/Spoken Language Test. Results can be seen in Table 2.1.

Descriptive statistics related to the Spoken Language pretest-posttest scores of experimental group children were given in Table 2.2.

Table 2.1 *Results of Wilcoxon Signed Rank Test for pretest and posttest scores of the experimental group*

Group	N	Mean Rank	Sum of Rank	z	P
Negative Rank	0	.00	,00	-2,419*	,016
Positive Rank	8	11,38	91,00		

*Based on Negative ranks

As noted in Table 2.1, the analysis of the Spoken Language pretest and posttest mean scores of the experimental group children indicates that the “Enriched Turkish Language Activities Program” helped the development of children’s spoken language skills ($z=-2,419$, $p<.05$; $p=.016$).

Table 2.2 *Descriptive statistics related to the Spoken Language pretest-posttest scores of the experimental group*

Experimental Group	n	\bar{x}	SD
Pretest	8	42,82	13,9
Posttest	8	59,62	6,56

As shown by table 2.2, the descriptive statistics regarding children’s Spoken Language pretest and posttest scores indicated that children’s mean score on spoken language from 42.82 with a standard deviation of 13.9 to 59.62 with a standard deviation of 6.56. This result points to a significant increase between their pretest and posttest scores. So, children in the experimental group did demonstrate a significant increase in their spoken language development following the intervention program.

3.1. *There is no significant difference between the BSSI-3/Spoken Language pre-test posttest mean scores of the children in the control group.*

Regarding the third hypothesis of the research (hypothesis 3.1), Wilcoxon Signed Rank Test was performed following the completion of the language program to see whether there was a significant difference between the pretest and post-test mean scores that children in the control group achieved on BSSI-3/Spoken Language Test. Results can be seen in Table 2.1. The results of the descriptive statistics related to the Spoken Language pretest-posttest scores of the control group were presented in Table 3.2.

Table 3.1 *Results of the Wilcoxon Signed Rank Test for Spoken Language posttest scores of the control group*

Pretest Posttest	N	Mean Rank	Sum of Rank	z	p
Negative rank	0	.00	,00	-1,000*	,317
Positive rank	6	9,69	77,5		
Tie	2				

* Based on Negative ranks

The results displayed in Table 3.1 indicate that there was no significant difference between the pretest and posttest scores of the children in the control group (n=8, z=-1.000* p<.05; p=.317*). Though they also do Turkish language activities in their schools, the lack of a significant difference in their test scores will arise a question to answer in our mind: “What caused such a lack of significant difference although they also took part in Turkish activities?” As reported in previous studies, the reason could be that the success of the education and the education environment can be affected negatively when teachers come to classrooms without preparation and planning and they most of the time ignore post-reading activities in their classes (Bilici Turan, 2005; Güneyli et al., 2016). Further research can be undertaken for possible reasons.

Table 3.2 Descriptive statistics related to the Spoken Language pretest-posttest scores of the control group

Control	n	\bar{x}	SD
Pretest	8	44,25	9,61
Posttest	8	48,62	6,99

As seen in table 3.2, the results of descriptive statistics regarding children’s Spoken Language pretest and posttest scores indicated that children’s mean score on Spoken Language increased from 44.25 to 48.62. Yet, the difference found was not significant.

For the research hypothesis 4.0, the posttest mean scores of both groups were compared using Mann Whitney–U test. The results are summarized in Table 4.1.

Table 4.1 *Results of Mann Whitney-U Test for posttest scores of the groups*

Grup	N	Mean Rank	Sum of Rank	\bar{x}	U	p
Experimental	8	11,44	91,500	59,62	8,500	,013
Control	8	5,56	44,50	48,62		

As the data summarized in Table 4.1. shows, the result of the Mann Whitney U Test performed for children’s posttests scores was found to be ($U=8,500$ $p<.05$) $p=.013$. P value evidences that the difference is significant in favor of the experimental group. The arithmetic means calculated also support this finding, resulting in 59.62 for the experimental group and 48.62 for the control group. Based on these analyses, it is seen the “Enriched Turkish Language Activities Program” contributed to the development of 4 years-old children’s spoken language skills. Other studies also revealed that enriched and carefully presented language activities affect children's language development. For example, drama practices or dialogic reading affected the language development of preschool children (Ünüvar, 2006; Aktaş Arnas et al., 2007; Yıldız Bıçakcı et al., 2018).

Discussion

In our country, there has been a lot of effort taken to help children with special needs. Similarly, it is worthy of notice that a lot of effort has also been put into the development of typically developing children in all developmental areas. The present study was carried out to see the effect of "Enriched Turkish Language Activities Program" on the spoken language levels of 4-year-old children attending a preschool. At baseline, no significant difference was found between BSSI-3/Spoken Language pretest and posttest scores of the children in the experimental and control groups ($P>0.5$). BSSI-3/Spoken Language pretest mean scores ($U=59,000$, $p>0.05$; $p=.344$) verified that the difference found was insignificant (Table 1). This statistical result indicated that children in both groups were equal developmentally in terms of their spoken language ability and represented a similar population.

"Enriched Turkish Language Activities Program" was implemented for 6 weeks by senior students studying at the Department of Child Development of our University. Two instructors supervised the planning and implementation process. Following the implementation of the program, a statistical analysis was done to determine whether there was a difference between the pretest and posttest mean scores of 4-year-olds who received "Enriched Turkish Language Activities Program", resulting in a significant difference between two tests ($p=.016$) ($z=-2.419$, $p<.05$) (Table 2.1./2.2.). This result showed that "Enriched Turkish Language Activities Program" improved the spoken language skills of the children in the experimental group. A large body of research has provided evidence that dialogic reading and the use of different techniques contribute to children's language development (Whitehurst Grover, et al., 1994; Akgül et al., 2014; Çelebi Öncü, 2016; Tetik et al., 2017; Yıldız Bıçakcı et al., 2018; Hafizoğlu Çelik et al., 2020). In this study, a variety of pre-reading and while-reading activities were also performed besides dialogic reading. It has been highlighted in other studies that such activities will make significant contributions to children's language development (e.g. conversation, memory narration, drama practices, poetry reading, finger games, play, dramatization, story completion, summarizing a story using question-answer strategy). Toye & Prendiville reported that creative drama contributes to language use by building a context for speech, creating new imaginary roles and perspectives and developing new relationships. They argue that thanks to creative drama, dialogue with children takes the place of teacher's one-way monologue, children's listening skills improve, and the circular seating arrangement in creative drama strengthens communication skills as it allows children to see each other. Story hour/time take place with such a seating arrangement (Ceylan, Beşir, 2020). Although language

development is a natural process and continues as long as there is input, it has been revealed in some studies that creative drama activities accelerate and enrich this process in language development (Alber & Foil, 2003; Aktaş Arnas et al., 2007).

It is noteworthy that the difference between the pretest and posttest scores of the control group was not significant. These children also benefit from pre-school education, nevertheless, the result of the Wilcoxon Signed Ranks Test indicated that the difference between pretest and posttest scores of these children was not statistically significant ($n=8$, $z=-1.000^*$ $p<.05$; $p=.317^*$) (Table 3.1). The immediate environment has a major role in structuring the acquired language. McCaslin (1984) argues that educators can use drama method to make it easier for children to learn abstract words and concepts by animating and expressing them through movements. However, some studies show that these practices are ignored or misinterpreted by educators (Bilici Turan, 2005). In the same studies, it was recommended to provide in-service training to teachers (Güneyli et al., 2016).

The result of the Mann Whitney U Test performed for children's posttest scores on Spoken Language was found to be ($U=8,500$ $p<.05$) $p=.013$. P value demonstrates that the difference was significant in favor of the experimental group. Based on this result, it was concluded that the "Enriched Turkish Language Activity Program" contributed to the spoken language skills of 4-year-old children.

Conclusion

In line with the findings, the following evaluation can be made: Supporting Turkish language activities in preschools with some other different activities and presenting them in an order seems to be effective in the development of children's spoken language. It is recommended that Turkish language activities be held for 20-25 minutes in preschool institutions. Whether educators give importance to Turkish language activities affects the nature and quality of Turkish Language activity hour. Educational attitudes and beliefs of preschool teachers are likely to affect the attitudes of students-in-training who are required to observe children in a preschool setting. For this reason, it is suggested to organize in-service training courses and prepare source books and films with more quality examples of practice for teachers, educators and students-in-training.

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Chapter 9

A Comparative Analysis of John Steinbeck's *The Grapes of Wrath* and Orhan Kemal's *Bereketli Topraklar Üzerinde* in the Light of Ecocriticism

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I. 1930s America and 1950s Turkey: Economic, Political and Social Conditions

1930s America and 1950s Turkey had to deal with several internal and external challenges. While the first quarter of the century witnessed WWI which had profound impact on every individual's life, the post-war era capitalism continued to dominate social and financial life. The economy was not stable while the prices fluctuated. Several strikes broke out as a reaction against the capital ownership. American economy received another major blow when the Great Depression broke out in 1929 that lasted until the early 1940s and had a profound impact upon the country (McDowall, 1989, p. 164). Mechanization, capitalism, and urbanization paved the way for further instability, alienation, and isolation from environment. While capitalism encourages more production and consumerism, mechanization in agriculture separated humanity away from nature and caused rise in unemployment. Urbanization, on the other hand, gave rise to separation from lands, fields, and fellow men. In addition to the political, economic, and social developments of the 1930s America, the harmful outcomes of modernization worsened an already precarious atmosphere of both societies.

The rapidly increasing population used up resources which induced urbanization and thereby upsetting the balance in cities. While the use of machinery in agriculture provided more crops, newly established factories demand for labor led to over-population in urban centers. The invention of tractor in 1904 by Benjamin Leroy Holt (Lea and Kennedy, 2008, p. 5) paved the way for the tractor to be used widely for agricultural purposes. This led to the mechanization of agriculture, and thus, changed the destiny of the farmers. The use of agricultural machinery increased unemployment since only a limited number of people could work in paid jobs. Another major issue of 1930s America was the draught, erosion, and dust storms that dried up the fertile lands. Steinbeck effectively describes this environmental crisis in his novel:

The clouds appeared, and went away, and in a while, they did not try any more. The weeds grew darker green to protect themselves, and they did not spread any more. The surface of the earth crusted, a thin hard crust, and as the sky became pale, so the earth became pale, pink in the red country and white in the gray country . . . The air was thin and the sky more pale; and every day the earth paled (Steinbeck, 1992, p. 3).

As the natural disasters were added to the economic crisis, farmers' condition worsened. It made life more difficult. This difficulty of adaptation is reflected in *The Grapes of Wrath* as follows: "The Western States are nervous under the

beginning change. Need is the stimulus to concept, concept to action” (p.158). The recurrent technological motifs in both works are the tractor and haymaker. Both machines are symbols of a new mechanical way of life that left people unemployed and at the brink of starvation. Thus, the tractors and haymakers breathe all the crop and eat at homes and land. Thus, machines are monsters that mankind has created, yet cannot control.

While American society suffered from economic depression and environmental disasters throughout 1930s, Turkish society also went through a series of transformations. According to Emrullah Ataseven a state is the only instrument that can ensure the welfare of the people. Without this support, the principle of social state cannot be realized (Ataseven, 2021, p. 111). Consistent with this argument, in order to modernize the country, Mustafa Kemal Atatürk conducted a series of reforms in political, economic, and social life. After the foundation of the Republic in 1923, the general population of country increased along with the people living in cities (Lewis, 1968, p. 310). Agriculture, which was the basis of the national economy, improvements were inevitable and considered significant. Technical equipment was used in order to increase the quantities and qualities of crops and to reduce the costs of production. However, the Great Depression of America affected the prices of agricultural products in Turkey which depended on export trade. Although it was self-sufficient in feeding its own people and protected them from the consequences of the depression, the country suffered from a serious economic crisis abroad (Lewis, 1968, p. 281). The country managed to cope with the crises by the help of etatism, which promoted urbanization and industrialization (1968, p. 285). Yet, this system neglected agriculture and forced Turkish society’ s separation from the land on which the nation depended for survival: “the greatest natural asset of the country remained unexploited, agricultural production did not increase and only a limited labor force was released for urban industries” (Hershlag, 1954, p. 324). Turkey experienced improvements and regressions in social, political, and economic aspects throughout the first half of twentieth century. The struggle for democracy, independence, and freedom have found its expression in the novel *Bereketli Topraklar Üzerinde* which depicts the struggle of Anatolian peasants against the rich landlords and authorities. The novel exposes the darkness of capitalism falling over the Çukurova, a big geographical, economic and cultural plain in Adana. Besides, it handles the tragic experiences of sharecroppers and seasonal labourers who die or migrate due to poverty.

II. Theoretical Background

Medieval Christianity's 'Scala Naturae' or the "The Great Chain of Being" claimed that at the top of biological scale is God and followed by angels, humans, animals, and finally the plants. Since humans were holding a higher place in the chain of beings, they had the leading right to dominate and subjugate nature. Renaissance inherited the idea of "Scala Naturae" and put rational men over other entities as a pursuit to be exploited using science. The humanism of Renaissance depicted man as possessing an unlimited power to shape and reshape the nature. David Ehrenfeld calls Renaissance sanctimonious humanism as a "godless monster" (Ehrenfeld, 1978, p. 8.) with its constant effort to dominate and control nature. This separation from nature created the binary of 'Nature versus Man': "reflected as binary oppositions and dualism, challenging, and conflicting with one another, circulating with the discourses of power" (Kılıç, 2021, p. 25). All the discoveries and inventions tried to efface the deaths caused by nature and to end its unpredictability. In "Animals are Machines", Descartes stated that movements of animals resembled that of clocks rather than an organic unity. Nature was working according to some mechanical laws and nature phenomena should be explained according to this arrangement and mechanical movements of its parts (Bertens, 2008, p. 195). Eternal laws governed nature which is a vast machine (Bertens, p. 195). Bacon and Descartes formulated pillars of the age by assigning human the prominent role of mastery over nature and status of a machine to it. A mechanistic, utilitarian, indifferent, and exploitative attitude towards nature was the outcome of gained knowledge that provided justification of human dominion over nature and the unfair exploitation of the natural world.

The Industrial Revolution and Age of Reason further reinforced anthropocentric view of man. Leaving religion and traditional beliefs behind and following empirical science, the rational man now set out to explore the world: science and technology culture transfixed the supremacy above nature (Manes, 1996, p. 23). After the invention of steam - engine in 1781, the ecological isolation of human paved the way for capitalist ventures. The industry grew and demand for labor and resources caused further exploitation of nature. Large populations of rural areas left country life behind and migrated to big cities in search for better lives. Humanity was separated from nature for an indefinite period while the expanding industry was the man's stronghold to dominate and exploit. In pursuit of new natural resources and cheap labor, colonization of distant lands started in the 18th century. Along with the distant and poor lands, man now exploited and subjugated his own specie through slavery and wars. Technology, search for natural resources and cheap labor caused several destructive wars throughout the history. Unprecedented destruction of

environment took its toll by means of hole in the ozone layer, melting icebergs, extinction of species, global warming, threats of famine, earthquakes, droughts, destructive hurricanes, and pandemic diseases. Onur Ekler argues “the devastating effects of science on the planet through sudden and immediate actions have even led to the coinage of a new term for the geological shift of our own creation: Anthropocene or it is better to call it “anthropo[sin]” since the universe is dying due to the flagrant waste of resources by the sinful acts of modern man” (Ekler, 2021, p. 2).

The earlier periods of British and American literature played a significant role in the formation of ecological consciousness. Romantic pastoral literature can be regarded as the early inspiration for the studies of ecological criticism as it emerged as a poetic reaction to the Industrial Revolution that parallels a serious reaction to the contemporary environmental ills. Renowned romantic poets like Coleridge, Keats, Lord Byron, Wordsworth, and William Blake protested the destruction of nature and man’s isolation from it in the Age of Reason. They glorified and promoted the nature by celebrating sublimity and beauty of it. Compared to natural sciences of earlier centuries, nature was embraced as an inspiration for one’s imagination and ecstasy. The British Romanticism paved the way for American Transcendentalism, which showed a reaction against the urbanization in America (Phillips and Ladd, 2006, p. 33).

In his introduction to *Ecocriticism Reader*, Glotfelty defined eco-criticism as “the study of the relationship between literature and the physical environment (1996, p.xviii). Eco-criticism sees man and all non-living entities as interconnected and that they are involved in non-hierarchical manner with each other. The harmful effects of damage done to nature and environment in the late twentieth century, man has faced more natural disasters than before, and mainstream media headlines started to highlight the natural crises. The toxic waste left after wars, deforestation, and other irredeemable damages given to biosphere have affected modern man’s health and wellbeing of future generations.

William Rueckert highlighted the ecological issues: “Everything is connected to everything else” (Rueckert, 1996, p. 105) and humans and nature should “coexist, cooperate, and flourish in the biosphere” (Rueckert, p. 107). He advocated that ecological programs should transform into economic, political, and social and above all individual programs of action. If modern man wants to secure a healthy future, he needs to transform his anthropocentrism into a non-anthropocentric approach, abandon the idea that he is the master of universe, accept that he is only a humble member of the earth and change the destructive attitude towards nature. There is no hierarchy in ecosystem except for the kinship

and symbiotic interconnectedness of different webs of life in a harmonious cycle. Literature proves to be an effective medium where such ideas could be disseminated, because it can affect people by creating awareness and show the natural disasters caused by humans.

In *The Environmental Imagination* (1995), Lawrence Buell emphasized the principles, history, and future of ecocriticism and its functions. Buell regards man as part of nature, questions man's alienation, and emphasizes interconnectedness of organic and inorganic entities. The dichotomy of capital, technology, geopolitics are the major reasons for man's separation from nature and consistent attempt to tame the nature have brought devastating results. To raise awareness for ecocentrism, Buell points out "stronger ethic care for the nonhuman environment or ecological consciousness" (p.170-195). The anthropocentric view of human has caused the destruction of biosphere and this needs to be addressed immediately with the help of ecologically conscious scholars. Buell furthers his arguments by stating that unlike other criticisms like feminism, or post-colonialism "one can speak as an environmentalist" (Buell, p. 7), while "resisting the totalizing implications of its linguistic turn and its aftermaths" (p. 17) Poststructuralist theories can help ecocriticism to deviate from anthropocentrism in literary works and can help to raise a substantial level of ecological consciousness. Both Rueckert and Buell emphasize the importance of caring for all living and non-living things alike, put humans and nature in the same equation, show an equal interest in social and biological systems, and remind that man's alienation from nature is suicidal. By using literature as a medium to raise an ecocritical awareness and incorporating other disciplines to establish nature-culture and nature-gender relationship could help to save the planet from further destruction. Seher Özsert states: "today's actions will eventually have repercussions on the future of humankind and nature, and, therefore, careful precautions must be taken to avoid a disaster" (Özsert, 2021, p. 29). Even the slightest harm done to biosphere may lead to great problems because every creature is a member of the nature-society in which everything is linked to each other, and they form a wholeness and order in nature. However, the self-righteous human has acted blindly towards biosphere and cares for his own needs only which has caused the reposition of rational system through development (Plumwood, 2003, p. 194). The outcome will be "with the death of the other on whom he relies" (p. 195). Humankind must either abandon his anthropocentric duality and embrace all living and non-living things by embracing "human and earth other" (Bertens, 2008, p. 205) or cause the annihilation of the whole biosphere.

Marxist ecocriticism argues that increased and unfair exploitation of nature is a natural result of capitalist exploitative relationship between oppressor and the oppressed. The capitalist system has caused “exploitation of the environment” (Bertens, p. 205). Newman states that ecocriticism should fully recover from the social order of capitalism and pursue ideological revolution for the symbiotic relationship between nature and human, because: “nature is not an inexhaustible fund of resources” (Newman, 2002, p. 10-11). The exploitative attitude towards nature and human is a historical process beginning from early ages and has transformed exploitation into a systematic control via agriculture and technology (Newman, p. 12). In essence, the exploitative relationship between oppressed and oppressor, raising an ecological awareness through an ideological revolution, and destruction of capitalism are the main tenets of Marxist ecocriticism. Under the light of above literary background, the study analyzes selected texts from an ecocritical perspective. The study tries to present results of exploitative attitude towards nature. Alienation from nature and constant desire to dominate environment are criticized through anthropocentric landowners and capitalists.

III. Ecocritical Analysis of *The Grapes of Wrath*

The Grapes of Wrath takes place during the Great Depression and depicts the misfortunes of the Joad family. They are share-croppers driven away from their failing cotton farm in Oklahoma. The first half of the story narrates the journey of the family from Oklahoma to California where they hope to begin a new life. The second half of the story shows the family’s struggle to survive against the large landowners who exploit them and the small-town bourgeoisie who mistreat them. The novel begins with the causes and effects of a disaster called the ‘Dust Bowl’. A long period of drought and high winds affect Oklahoma that cause failure in crops. People move elsewhere so as to find fertile land on which making a living is possible. The drought has turned farmers into indigents, and indigent farmers into sharecroppers whose life and livelihood have been mortgaged to the bank.

Paroled from the state penitentiary, Tom Joad hitchhikes home. On his way, he meets Jim Casy, a former preacher. The preacher expresses that he is not a preacher anymore because he has lost his calling. When Tom and Casy arrive at what was once the Joad farm, they find it abandoned. They hear from a neighbor, that the Joads have been evicted from their farm by the bank and that they are preparing to go to California to find work. When Tom and Casy arrive at their destination, they see the family is getting prepared to leave. During their journey, Grampa has a stroke and dies. Grampa’s death is crucial since it signifies his breaking the connection with the land which causes him to die since he has been

taken away from his roots. He says: "This country ain't no good, but its my country. No, you all go ahead. I'll jus' stay right here where I b'long" (p. 143). Since "Everything is connected to everything else" (Rueckert, 1996, p. 105) and humans and nature should "coexist, cooperate, and flourish in the biosphere" (Rueckert, p. 107), departure from one's roots cause death of the other.

The Grapes of Wrath describes the farmers' migration to California as they lost their lands because of bank debts or poverty. Rather than the Dust Bowl, it is the poverty that drives the farmers away from the land. The conflict between the humanity of the farmers and the inhumanity of the bank and poverty are the main elements that leads to the sufferings of people. Together with their agricultural machineries, the banks are responsible for the loss people suffer: "A man can hold land if he can just eat and pay taxes. But- you see, a bank or a company can't do that, because those creatures don't breathe air, don't eat side-meat. They breathe profits; they eat the interest on money" (Steinbeck, 2010, p. 34). Thus, the characters actually do not struggle against the drought and flood but capitalism and exploitation of their labor. Represented by the bankers and landowners, those who can dominate other people believe that they can also dominate their lives: "the land fell into fewer hands, the number of the dispossessed increased" (p. 249). The capitalist banks treat nature as an inexhaustible fund of resources and natives as slaves to be exploited. Marxist eco-criticism argues, "exploitation of the environment is responsible for the environmental crisis follows the capitalistic exploitation" (Bertens, 2008, p. 205). Capitalism does not only exploit non-human environment but enslaves and exploits natives labor as well. Exploitation of labor in Marxist terms become more obvious when the characters are forced to leave their land and homes behind to places of mild climate and fertile soils of California: "Why don't you go west to California? There is always work there, and the weather is not cold. You can go there and pick oranges" (Steinbeck, 2010, p. 36). The anthropocentric view of human has caused the destruction of his fellow human beings along with nature. Consistent with Newman's observation that the exploitative attitude towards nature and human is a historical process beginning from early ages and has transformed exploitation into a systematic control via agriculture and technology (Newman, p. 12).

The sharecroppers flock California leaving behind their homes to find food and land: "there were still flocks of tough, careful, dangerous people who had been stripped of their land and made homeless. The new barbarians were only after two things: food and land" (Steinbeck, 2010, p. 242). Despite the fact that agricultural machineries provide more crop yields with less labor and pain within less time, they deprive farmers of their jobs and lands. Since a man belongs to the

land on which he is born, works and dies, the tractor is regarded by the farm laborers in the novels as the monster eating the earth, depriving them of their birthplace, home and grave: “snubnosed monsters, raising the dust and sticking their snouts into it, straight down the country, across the country, through fences, through dooryards, in and out of gullies in straight lines” (Steinbeck, p. 37). Eviction from the land due to the technological changes brings about loss of unity within a society because each man loses a part of him and his soul. As the remaining family members move from one camp to another looking for jobs, trying to find food, and struggling to hold the family together, the unity of the family is lost. The oldest son, Noah abandons the family as Connie, the young dreamer who is married to Tom’s pregnant sister, Rose. Thus, the slightest harm done to biosphere leads to greater problems because every creature is a member of the nature-society in which everything is linked to each other, and they form a wholeness and order in nature.

According to Plumwood, the humankind acts blindly towards biosphere and cares for his own needs only which has caused the reposition of rational system through development (p. 194). The manifestation of the blind actions of human comes in the form of machines that are used to subjugate the nature. Machines’ cruelties are described as: “The thunder of the cylinders sounded through the country, became one with the air and the earth, so that earth and air muttered in sympathetic vibration” (Steinbeck, p. 37). People are separated from nature as they do not put themselves out in a direct farming by standing on the land with their bare feet, they are not aware of the difficulties experienced while growing crops. However, this sense of power offered by the technological machinery represents the artificiality of modern times. Land is no longer natural as it is not watered by the sweat of farmers, and crops are not natural as they are not grown with the labor and pains of farmers: “No man had touched the seed or lusted for the growth. Men ate what they had not raised, had no connection with the bread” (Steinbeck, p.38). As a result of the use of the machinery on the farms and the fellow men of the same society are divided into groups as those who take advantage of technological improvements and those who do not. Both sides become alienated to each other; they do not recognize who and what they are, and they cannot understand what the other thinks and feels. In such a chaotic world each individual is for himself. These personal and familial interests make people in the society enemy to each other.

Men and things are classified according to their financial values and technological practices rather than their essential characteristics. Interpersonal relations are dependent on the amount of money and performance of technology instead of the spirituality of men and inherent values. The novel conveys the

message that science and technology deprive men of their spirituality and morality for the sake of financial ambitions. Morally divested men consider nature and natural elements to be exploited for their own interest and profit. As machines kill the living things in the machine age, tractors are considered as wild monsters:

The houses were left vacant on the land, and the land was vacant because of this. Only the tractor sheds of corrugated iron, silver and gleaming, were alive; and they were alive with metal and gasoline and oil, the disks of the plows shining . . . But when the motor of a tractor stops, it is as dead as the ore it came from. The heat goes out of it like the living heat that leaves a corpse (Steinbeck, p. 120).

The sharecropper families who are unemployed due to the use of machinery in agriculture pushes families to migrate: “and then all of a sudden the machines threw them off their land, and they spilled onto the highways” (Steinbeck, 2010, p. 298). Because machines do the job of many people: “One man with a tractor could replace twelve or fourteen families” (Steinbeck, 2010, p. 35). The use of machinery in agriculture is due to the confiscation of lands by banks in return for their debts, the lands being taken over by large companies and the owners wanting to process large lands collected in one hand with machines. Alienated to their own society, such people abuse technological developments for the worldly desires, changing the machineries into something cruel and destructive: “There in the Middle - and Southwest had lived a simple agrarian folk who had not changed with industry, who had not farmed with machines or known the power and danger of machines in private hands” (p.295).

The novel indicates that the capitalists exploit masses for their own sake: “and in the eyes of the hungry there is a growing wrath. In the souls of the people the grapes of wrath are filling and growing heavy, growing heavy for the vintage” (Steinbeck, 2010, p. 365) Actually, the anger turns out to be the wrath of human beings towards each other. It harms the unity within the society. Tom takes over the mission of Jim Casy who has begun a kind of strike against the owners and the capitalists: “Says he foun’ he jus’ got a little piece of a great big soul. Says a wilderness ain’t no good, ‘cause his little piece of a soul wasn’t no good ‘less it was with the rest, an’ was whole”(437). Wholeness is obtained by the unity of man with nature and fellow other humans. If not, it is destructive only focusing on mankind’s progress regardless of the future. Although the novel ends with Tom’s decision to struggle against the capitalists for a more equal society and with the optimism of Sharon when she feeds a starving man with her breast milk,

it is not certain whether he will accomplish his mission or not as the capitalists mercilessly go on their evil ambitions. It is also ambiguous whether there is hope for a more equal society due to the capitalism.

VI. Ecocritical Analysis of *Bereketli Topraklar Üzerinde*

In *Bereketli Topraklar Üzerinde* Orhan Kemal depicts the difficulties experienced by three childhood friends: Hasan, Yusuf, and Ali. They have set off on their journey to Çukurova to find work. These three peasants wander farm by farm in order to find work, earn money and to allay their hunger. Upon their arrival, Hasan immediately gets sick because of the conditions at the factory. Yusuf and Ali are fired when they start complaining about their head for the exploitation of their labor to the owner. Disenchanted with the factory work, they go on their journey in Çukurova to find new places where they can work. When they are on the verge of surrendering to hopelessness and helplessness due to unemployment and Hasan's illness, they find employment in construction. They leave Hasan behind who dies very shortly because of the injuries sustained at the factory. While Yusuf is learning mastery in construction, Ali elopes with a married woman who begins to work in the field while Fatma works at the farm. The two protagonists do not give in and find a temporary jobs in Çukurova, which ends up in darkness and disillusionment again. The landowner sends Ali away to a far field for threshing to separate the couple. In the field, a handyman Zeynel encourages other laborers into a mutiny. He urges them to throw away the food being served so that they can get what they deserve. However, when Kemal, a farmhand complains about Zeynel to the landlords, these two are fired. Ali takes up the haymaker job and his hand is caught up in the haymaker. The landlord refuses to take Ali to the hospital on the pretext that his car will be soiled with Ali's blood. Ali dies and that same night Zeynel sets a fire to the threshing floor and flees before gendarmeries arrive. In the last scene, Yusuf is waiting at the station to return to his village. He learns from a friend that Ali is dead. Of the three childhood friends, only Yusuf is able to make it back to his hometown.

The novel exposes the darkness of capitalism falling over the Çukurova, a big geographical, economic and cultural plain in Adana. Besides, it handles the tragic experiences of sharecroppers and seasonal laborers who live in poverty. People are exploited while the old and sick ones are left uncared. The ownership of tractors and other agricultural machineries lead to the class discrimination within the society, dividing people into the owner and the owned, and the rich and the poor. Eco-criticism foresees that "everything is connected to everything else," and "coexist, cooperate in the biosphere", yet the anthropocentric use of science and technology not only harms non-human environment but also destroys man

(Rueckert, p. 107). Misuse of science and technology have had devastating results throughout the history and Kemal shows that destructive machines are used to gain profit over human and non-human entities. The arrival of the tractors leads to the reconstruction of the village society, causing the poor peasants to be overcome by the rich landowners. The novel shows that the transformation of agriculture in the village has also changed the life of the villagers. The Turkish peasants became unemployed and were driven away from the farms on which they had been working for many years. The only option is to migrate. Ali says “We are going to Çukurova. Even in the middle of winter, there is daily sunshine. The water is sweet, the bread is plentiful” (Kemal, 2012, p. 10). Their destination offers temperate climate, fertile soil, and plenty jobs. Laborers from all over Anatolia pour into Çukurova for work:

Pehlivan Ali was at the left head of the line. Next to him were the Hürü's daughter and husband, then Bald Meryem, İncirlikli Asiye, Adıyamanlı Fatma, Hüseyin Bozboğaz, Child Fethi and others. While the sharp blades of the pickaxes hoeing the harmful weeds between the thin long stalks of the grown cottons were descending and rising together, the dry soil was boiling under the picks (Kemal, 2012, p. 183).

Although Turkey was self-sufficient to feed its people, keeping them safe from the terrible consequences of the depression, the country underwent a serious economic crisis that broke out abroad (Lewis, 1968: 281). The Republic coped with the economic crisis by the help of etatism, which proposes urbanisation and industrialisation (1968, p. 285). On the one hand, scientific discoveries help human society abundantly meet their vital needs while such developments cause repression and destruction of the society on the other hand. Due to the increasing factories and large agricultural lands as a result of the industrialization of agriculture, Çukurova received immigration at the time *Bereketli Topraklar Üzerinde* was written. Travelling by train hundreds of sharecroppers pour into the city with the hope of finding a job:

Arrived in Adana in the morning of the next day. The train, crammed with laborers, stopped with a tired whisper. Hundreds of them, including Sarkislali Yunus, Veli, Yusuf, Köse Hasan, and Pehlivan Ali poured onto the station concrete with their white bags and quilts tied to a shackle (Kemal, 2012, p. 28).

The first problem that the protagonists encounter is accommodation. It is a serious issue to the point that they live in conditions unbefitting to human dignity. The difficulties of working and living conditions in the city will turn people into “animals in human form” (Kemal 2014, p. 63) Deprived of their most basic necessities such as treatment, food, and shelter, they are brought down to the level of animals in human form: “the house they lived in was a large barn two quarters below, where the headman of the neighborhood once tied up his animals, the floor of which was still covered with manure. The horseflies were flying in buzzing circles. The dilapidated adobe walls were wet to their waists. The room smelled of sour-sour dung” (p. 65). Living in barns and animal shelters, masses are stripped off human dignity.

Many of the workers who migrated from their villages to the city meet the factory for the first time. Their reaction to see the factory for the first time is as follows: “The three friends turned and shook the workshop, which was loaded with cotton dust. They were stunned. Yusuf was right behind the head. Others further back, confused, timid... Especially Pehlivan Ali, with his huge hand, he gripped Köse’ s skinny arm tightly” (p. 57). The working of the gin machine is described by the narrator as: “They were startled as if they were hit by a flying air. Here almost everything was shaking swaying and spinning. Hanging from the blackened low roof, tiny bulbs glowed yellow among the dust clusters” (p.56). In another part of the factory, the “cocoon section”, the workers cover their faces with rags to protect themselves from the dust of the cocoons. However, condition of those working in “watery cocoon” is even worse:

Cocooners are all filled with dirty water seeping from the zinc backings. They were soaked to the bone. They were trembling. Aqueous cocooning was nothing other than carrying wet cocoons from one place to another for twelve hours. It was a rough business because instead of glass, wet sacks were used. When the frost hit the windows, the place turned into a refrigerator. Workers would cough badly, and soon they would get pneumonia (p. 63).

One of the workers is Hasan in the watery cocoon and he eventually gets sick. His two other friends desert him which reveals the decadence and corruption of rural values: “We did not make you sick. It’ s from God” ...Pehlivan Ali clenched his huge fists and looked furiously. Not to his fellow countryman Hasan, but to the times that put him in this state, to the perfidious fate... “(p. 101-102). Köse Hasan dies shortly after being abandoned by his friends. This fatalistic point of view which attributes the negligence of employer to God brings Hasan’s demise.

Agricultural machineries were imported in the axis of the Marshall Plan after the Second World War. The arrival of the machinery leads to the reconstruction of the society, causing the poor peasants to be overcome by the rich landowners. This transformation of agriculture in the village changed the life of the villagers. The Turkish peasants became unemployed and were driven away from the farms on which they had been working for many years. Since the industrialization of agriculture provided employment to immigrants both in the use of machinery and in factories, many people were forced to leave their lands behind. Yunus, who learned how to use a tractor, was lucky to be able to use machines: "Now I know all about the tractors" (Kemal, 2012, p. 20). On the other hand, there are immigrants working in the cotton gin factory in Adana: "all these eight laborers have landed in Çukurova to work. They were from our central Anatolian or eastern provinces; they were working in nearby gin factories" (Kemal, 2012, p. 65). Unfortunately, the pride of few men becomes the suffering of others: "Don't call it a machine, it is an engine," he said. 'I'm a master and I know it like the back of my hand' (p. 26). Thus, the novel exposes that the agricultural machineries pacify the peasants, stripping them of their vivacious exertions in farming, making them remain dormant until they try to regain their consciousness. A luxury, sports car are another form of machinery that dominates the novel. In *The Grapes of Wrath*, those who rule the land are well-dressed representatives who come in expensive cars, while in *Bereketli Topraklar Üzerinde* they are described as landlords arriving in sports cars:

At one time he saw the little agha's sports car starting again, entering the field, walking slowly, stopped... "How are things going?" "I said it before, I'll say it again, if you finish this place in twenty days, you can ask whatever you want from me!" ... "Do you think it will be over in twenty days?" The master looked at the head. "Don't worry, I will not let them to take a single breath" (Kemal, 2012, p. 247).

Working conditions at the threshing floor are quite harsh. Everyone has to work like a machine. The work hours and breaks are determined by the head. If he wishes he can have people work at the threshing machine for as long as he wants: "Tired, frustrated people with their lips parted, their mouths foamy, eyes sunken, faces crumpled and blackened... No one will help anyone else. If they die they die, if they can go, they will go!" (p.284). Intense work, insufficient breaks, poor housing, and landlords' greed cause disasters. While safety is almost non-existent, Ali's leg is caught in thrush. With the introduction of machinery, people's lives have turned upside down. The landlords ignore seasonal labourers

and sharecroppers since they do not need them any more as the tractors carry out the work better than the labourers are supposed to do. In Marxist point of view, this change leads to the estrangement of a man from his work, from other men and from himself (Marx, 1976, p. 757, 990). In the twentieth century, alienation from nature is also added in the form of Marxist ecology because alienation from one's self means alienation from his origins, and thus from nature. Alienation from one's self becomes more evident in Yusuf's utterances:

Once you step on a foreign land, you get used to it, let it go. You always go. Hometown calls, you can't stop, it's not possible, you can't stop. If you do not go, the village will sink, you will be depressed. Hemp can't hold you in a lasso, you go. Can you stop when you're gone? What is possible? This time, laziness rages in his home, his zodiac sign smells, he enters his dreams. Oh, you're dying to go, you can look forward to the land. You go, you go to go... this time it is a foreign country, it calls you. The village sinks, the heart shrinks, narrows, narrows like a walnut shell. What do you think I came here to say" (Kemal, 2012, p. 7).

Technological machineries replace manpower and animal power, disconnecting both species away from the natural environment and rendering them alienated to their own natural world. Bookchin's theory of social ecology has suggested that the dominant ideologies in the social structures, which have reduced man and nature to products to buy and sell, must be removed because it has given rise to hierarchy among people of the same society as well as between the human and the natural societies. In the novels, the agricultural machineries like tractors and reaper- threshers are presented as evils that prevent survival on earth and that destroy families and homes. Scientific and technological developments, together with the transformation of the social and economic processes, change the landscape of the region. In this aspect, Steinbeck and Kemal have dealt with the environmental ethics by emphasising that the destruction of the natural world will be the end of mankind. Both have emphasised that man's break from the natural environment will end up with the meaninglessness of his existence because he will lose his place on earth.

Conclusion

In this comparative literature study, *The Grapes of Wrath*, and Orhan Kemal's novel *Bereketli Topraklar Üzerinde* are analyzed. The similarities between the works are revealed. Steinbeck and Kemal have sought to develop ecological awareness in the reader against the environmental problems. Both have

questioned the norms that determine the positions of people in nature. Therefore, they have portrayed the real events and ordinary characters to adopt a realist and socialist approach to the representation and solution of the environmental destructions caused by man. The analyses have been done by comparing and contrasting the two cultures. This study has mostly concentrated on the environmental representations and ecological constructions of the different cultures by examining the interaction between technology, religion, society and environment. The events and characters in the selected novels with which ecological crises are described have reflected the characteristics of both cultures in terms of the relationship between man and nature. The methods and systems of human beings must be redesigned in order to conserve the ecological and cultural variety of the natural systems because man is inseparable from nature and is an integral part of the natural world. *The Grapes of Wrath* has dealt with the transformations in the society in the face of the Great Depression, which has influenced the relationship between man and nature. It has been inferred that the industrialization, mechanisation, capitalism and anthropocentrism create obstacles between man and the land. The loosening tie between man and nature has also stripped the humankind of his origins, his wholeness in the human community, and his ecological self on earth. The ecocritical analysis of this novel has revealed that the people can get rid of the social and economic crises only if they re-establish connection with the land and nature essentially. For this reason, the destruction of the environment does not only mean an ecological problem but also social and economic problem. *Bereketli Topraklar Üzerinde* has represented the social and economic problems in the Çukurova and the changing lives of its inhabitants due to the poverty and mechanization of farming. The novel has delineated the sufferings of the seasonal and farm labourers who have been left unemployed and ignored. Modernisation and technology have outdone the tradition and manpower. These developments have facilitated the lives of the landowners while it has led to the suffering and impoverishment of the farm labourers.

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Chapter 10

Existential Philosophy's Understanding of Being

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Introduction

Existential philosophy consists of two opposing lines that run from Kierkegaard to Marcel as theistic, and from Heidegger to Sartre as atheistic existentialism. Existentialism, in general, is a philosophy of existence that accepts the existence of the individual as the starting point. On the other hand, it is a philosophy of ethics and values that tries to understand this person's place in the world, his place and value in front of others and society, and strongly feels the responsibility of his actions (Gürsoy, 2014: 70). The fundamental problem is, in a sense, "How can human beings live in this irrational meaningless world?" is to seek an answer to the question. Some existentialists, like Kierkegaard, thought that the answer to this question lay in religious belief. Others, like Sartre, as atheists sought ways to experience one's experiences and more humane beliefs in order to make life meaningful (Popkin & Stroll, 1956: 190).

Definitions of existentialism differ from person to person. Existentialism for Weil is a depression, for Mounier it is despair, for Hameline it is anxiety, for Banfi it is pessimism, for Wahl it is rebellion, for Marcel it is freedom, for Lukacs it is idealism, for Benda it is irrationalism, For Foulquie, absurdity is philosophy (Sartre, 1996: 7). Again, Karl Jaspers discussed existence in the context of death (Jaspers, 1997: 48, 92, 131, 206). According to Heinemann, a true definition of existentialism cannot be made. Because there is no single essence, no single and unchanging philosophy that embraces the word existentialism. This word denotes a variety of philosophies with profound differences between them (Sartre, 1996: 8-9). Sartre, like Heinemann, avoids making a single and specific definition of existentialism (Sartre, 1961: 1-30). When the definitions made are evaluated, although a single definition cannot be reached, the basic principles of existentialism can be perceived. The most important of these, and the point at which both the theistic and the atheistic ones converge, is the acceptance of the idea that "existence" precedes essence in human beings alone. Man chooses himself essence. Thus, essence comes after existence. Because in order to choose, man must first exist. There are some conditions when we come to the world, but this does not change the fact that we self choose how we will behave in the face of them. By the way, another important concept is "freedom". Freedom should not be bound by any limit. What is at issue is actually freedom of choice. Not choosing is not freedom. Even not choosing is actually choosing not to choose. Also, people are responsible. The responsibility of choosing oneself or creating one's essence naturally belongs to man himself. Kierkegaard says that thinking about existence is out of the question in principle. Because that means falling back into abstract concepts and making existence itself an essence and this includes a contradiction (Foulquie, 1991: 21-23).

Existentialism is both a current of thought and a social phenomenon that everyone interprets in their own way. Existentialism framework is not a clear philosophy, it consists of a number of orientations and contradictory thoughts. Existential philosophy is not an essentialist philosophy. Therefore, a common definition of existential philosophy cannot be made. Existential philosophy is a philosophy that deals with concrete, historical and individual human beings in the integrity of their existence. Existential philosophy, which examines the concrete and the individual, evaluates the human being as a subjective being, not an object. In general, we can say that existentialism is a philosophy that centers the individual's concrete existence and states of being.

The Being Problem of Existential Philosophy

Existentialism is a theory that cares about the priority of existence, asks questions about the meaning of being, tries to find the original and seminal answer to the question of what is being, and reveals curiosity about the meaning of existence. So the whole problem in existentialism is what "being" is. In addition, this question naturally raises the question of what "being" will be in its structure while seeking the answer. In fact, this is, in a way, shaping the information institutional structure of the being in the philosophical field.

In order to reveal the understanding of being of existential philosophy, we can especially benefit from two famous thinkers of existence, Martin Heidegger and Jean Paul Sartre. For example, Heidegger's philosophy of being is one of the philosophies that have had a great impact on our age. The main problem that he deals with in his philosophy is the problem of existence. According to Heidegger, being is the "most universal" of concepts. He mentions that the understanding of being includes everything that we comprehend in the existing. Since it is a most top universal concept, the concept of being cannot be defined. Heidegger says that being cannot be conceived as existing. On the other hand he states that being cannot be determined by attributing some exists (Heidegger, 2011: 2-3, 27, 182-183). The most precise statement that can be said about being is that being is ambiguous and it is a self-understood concept. This ambiguity arises from being thrown into a world (Heidegger, 2011: 184-185). In that case, existentialism asserts that man is a being thrown into the world of objects and researches and analyzes man's world of meaning.

With the concept of *Dasein* he developed, Heidegger tries to establish a philosophy of being with a philosophical approach to understanding this thrown human. Heidegger focuses on the problem of human existence rather than the world of objects, emphasizing the being and the temporality of that being with the *Dasein* rule. and Heidegger reflects on the question of where and how being

reveals itself as the “being of beings” and says that “understanding being is, in a way, questioning it”. According to Heidegger, the questioning of being occurs in three stages:

1- An inquiry into the meaning of Being. Being makes itself clear and evident in being called *dasein*. *Dasein* is the being in which the meaning of being is questioned. *Dasein* is not primarily the object of knowledge, but the being that gives modes of being in itself. Only its own existence can give *Dasein*'s existence (Heidegger, 2009: 44; Çüçen, 2000: 23).

Heidegger also starts his philosophy of being from human. Heidegger, who considers existence as different from the world of objects or the outside world, considers the philosophers' investigation of the existence of the external world and objects as a scandal of philosophy (Akarsu, 1998: 216). Heidegger, who seeks being in existence, states that being cannot be handled and defined like a stone or a plant. Heidegger, who draws attention to the importance of the human element in dealing with being and defining existence, emphasizes that only the being who can understand existence is human and that one can enter the world of existence only with human beings.

According to Heidegger, only man can ask what being is, can step towards being, transcend the limits of what exists. And only man is the real being, he who is not only existent, but also able to understand himself as existent (Hübscher, 1980: 87; Akarsu, 1998: 214).

According to Heidegger, there are two important forms of being in which man necessarily exists.

- a- To be in the world.
- b- To be with 'others' in the world.

“I” and “outside world” are inseparable, there is no such thing as a problem of the outside world, because human existence is actually taking place in a world; is to be the world. Man's being in the world is not like an object or an animal being in the world. This is an encounter with the world. According to Heidegger, who says that knowledge has no effect on man's encounter with the world, encountering the world occurs with an action, by doing a job, by establishing, producing, renewing, taking care of, and worrying (Bubner, 1993: 36; Sahakian, 1997: 314; Akarsu, 1998: 216; Çüçen, 2000: 46). If there is no man, there is no world. The condition of the world as existing depends on the existence of man. The world has no value in itself without man. The world is human creation and is here for man.

The existence of man and his participation in this becoming does not only occur in the world, but also with other people. Our existence is also an indicator of the existence of other people and being with them. Togetherness, being with people, is the social aspect of our own self (Akarsu, 1998: 218). So much so that this world is a shared world experienced with others.

2- The second important stage in questioning and understanding being is the state of mind. When the moods are listened to, we understand not only what we are, but also what we are becoming. Where our being comes from and where it goes is closed to us. Our presence here is accidental and disconnected. No one has asked why we were born and why we exist here. But our being here was only forced by someone. For this reason, human beings and other beings should be able to realize their existence, possibilities and plans in freedom. That's what "understanding" is. Understanding is not possible by self-knowledge or by scrutinizing oneself, on the contrary, it is possible to by understand and try how much you can achieve by trying your own strength (Akarsu, 1998: 220-221). Understanding precedes all acts of becoming. There is no way to separate human existence from the act of understanding. Therefore, understanding is, first of all, the realization of one's own possibilities.

Human is constantly thrown into projects that will be realized by exceeding certain limits. Human life is therefore a progressive process. Existence is a continuous transcending. In order to understand existence, the universe and human beings, it is necessary to understand and comprehend time, as well as to understand existence to understand time (Heidegger, 2011: 18; Çüçen, 2000: 80). Understanding is possible as long as human beings continue their existential possibilities in time. Because understanding is a process that takes place by becoming aware of one's own existence.

3- Another form of existence is the word. A language is not understood from the word Heidegger mentions. That is, the word is what makes speech possible before language. It is the "mind" that creates it. In Heidegger's philosophy, the word fulfills the task of the mind in the philosophy before Heidegger: it differentiates, determines, establishes concepts. Only man has a language, since only man's mind is his ability to think. Thus, the word organizes what is still confused and disordered, and brings it into language. If the word is separated from the "situation" and "understanding", it becomes a mere "empty rhetoric". Status" indicates that man (Dasein-being here) has been thrown. "understanding" shows us the consciousness that can realize the possibilities and plans of existence in freedom. Word" also indicates the ability to express events and phenomena in the outside world. By progressing in these three steps, the being reveals itself. According to Heidegger, apart from this, there are also tools that reveal the basis

of existence completely: These are fear, conscience and death (Akarsu, 1998: 222; Sahakian, 1997: 314; Bubner, 1993: 30).

As a result of Heidegger's questioning of "what is the meaning of being", the conclusion he reached is as follows: The definitions of being based on metaphysical concepts are only interpretations and these are also wrong and incomplete definitions. What needs to be done in this situation is to try to reveal the meaning of being by discussing again the misinterpretations made about being. To the question of what is being, the question of what is the meaning of being should be directed. In this case, the answer to the question of what is the meaning of being will reveal the answer to the question of what is being. With these thoughts, Heidegger contributed to the re-emphasis of the importance of ontology in philosophy by providing a different direction to philosophical thought. Heidegger sees man as a being who can understand existence and defends the idea that man should transcend himself. With these thoughts, he evokes the system of thought expressed by the concepts of truth and ingenuity in Islamic thought, especially in the Sufi literature (Kılıç, 2004: 64). Ingenuity, on the other hand, is a special knowledge obtained through thought and effort, conscience and meticulous research. The truth, the hidden and implicit meaning behind the visible, is to live the religious life at the highest level and become familiar with the divine secrets. In this way, ingenuity corresponds to the human being's understanding of being; truth corresponds to man's self-transcendence.

Regarding this issue, Sartre also has a concern for ontology -just like Heidegger- and besides this concern, there is a desire to analyze the idea of "nothingness". Because, in Sartre's philosophy, such a desire is the result of a need. The idea of "nothingness" is taken up in him in a Hegelian rather than Heideggerian sense (Wahl, 1964:24).

According to Sartre, defining being depends on taking into account its exact opposite "nothingness" and accepting that they are separate reflections of a whole. At this point, Sartre's treatment of "being" contains a Hegelian attitude. In short, Sartre considers being in two ways: "being-in-itself" and "being-for-itself". They actually exist in one and the same being, that is, they coexist. Because of this coexistence, "being" is continuously self-identical. The "being-in-itself" is sort of like "space" of Descartes. Whereas, "being-for-itself" corresponds to thought that has its being, in a Hegelian way, as a continuous motion. Sartre defines "being" in his book "Being and Nothingness" as follows: Being is not a relation to itself, it is directly itself. It is an immanence that can be unrealized. That is, being is not a relationship directed towards the self itself; it is directly this self itself. it is an immanence that cannot realized, an affirmation that cannot be affirmed, an activity that cannot be acted upon. For it is so full of itself that

everything seems to indicate that this fullness of being must be removed in order to extract the self-affirmation of the self out of being. However, this is not the being's making itself indifferent by isolating itself from the features of its own self. Because the being-in-itself becoming indifferent means that beyond this determination, the phenomenon of affirming one's own essence knows any no bounds. Because there are many forms of self-affirmation. If we briefly summarize these first results, then it can be said that being is the 'self itself'. But if being is the self being in itself, it indicates that this being does not refer back to its own self, just as in the consciousness of the self: Being is in itself or being is the in-itself of this self (Sartre, 2009: 42-43).

Sartre, while giving the definition of being, resorts to a Hegelian form of determination. He actually uses this as a kind of method. Because, for Hegel, too, being is the transition, transformation, integration, and fusion of states that are "being-in-itself", "being-itself" and "being-for-itself" in a continuous motion. This constitutes the history of being. History, together with the structure of being, prepares the objectivity of change and metamorphosis. This is also the history of consciousness. So the history of consciousness - the Phenomenology of Spirit - is the history of its [existence] experience: it is the unfolding of spiritual substance, gradually moving towards the self. This idea, which explains Hegel's Phenomenology, actually emerges from Hegel's statement: Consciousness cannot know or grasp anything other than what exists within its experiences; After all, what is in this experience is only spiritual substance. He too is, in fact, the object of his own Self. This objectification is nothing but the historicization of the ontological structure of being (Yenişehirlioğlu, 1982: 114).

Knowledge enters as a third element in this process of gaining gaining historicizing by objectifying or objectifying by historicizing. Thus, in Hegel's dialectic, being and knowledge constantly guide each other, revealing the movement of "concept" and understanding. What has been known as dialectics since Hegel is being and knowledge or this movement of understanding. From this point of view, Sartre wants to put the "ideology of existence" on such a basis: Sartre first investigates whether man has a reality. Because in order for a person to acquire a "being", first of all, a person must have a reality. Man can attain an existence only by this reality. It cannot be known before man exists. because before man exists he is nothing. But something will happen after it exists, and so it will be as man makes himself. That is, man makes his own humanity. This fact is the fact that man understands himself, knows his essence without resorting to an intermediary. With this fact, man also reaches others from himself. Others are necessary for human existence and self-knowledge. However, it is only man who makes himself (Sartre, 2010: 14). In other words, a person is a design for himself,

a project. Man first exists, then forms himself as a being who is thrown into the future and is conscious of it. so it will be as man has designed himself or how he drew his project becomes that shape.

Therefore, knowledge emerges as a mode of being. Knowing is neither a later relationship between two beings, nor an activity of either of these two-entities, nor a quality, trait, or competence. So for Sartre, knowledge is the very being of the for-itself (Sartre, 2009: 252). The relation of being-for-itself with being-for-other gives man a comprehensive knowledge of being.

Sartre's existence is determined by the fact of finding the way of life by affirming one's own self (Yenişehirlioğlu, 1982: 115). Being is not a relationship directed towards the self itself; it is directly this self itself. It is the self-affirmation of the self. Affirmation develop a constant commute between acceptance or denial. This commute is nothing but the movement of being. This coming and going of being constitutes a certain process. This process is the formation process of existence. Being becomes reality in this process of formation. There are various ways in which reality emerges. Therefore, different realities emerge. Thus, being has many forms of self-affirmation. Because each reality presents itself as "self". This "self" consists of two separate structures and envisages a continuous transition to each other. These transitions are the movement of being. This is why Sartre defines "being" in two ways: "being-in-itself" and "being-for-itself".

The first feature that can be said for being-in-itself is that it is identical with itself. Being in itself is what it is (Sartre, 1984: 28). This is a tautological proposition. So a thing is what it is. This is the law of identity: 'every being is identical with itself. A is symbolized as A. this law states that there is always an identical nucleus in every existent and that it does not change and in this sense it is substance. Apart from this, the law of identity states that every existent is something unique or one and only. The idea that being-in-itself is identical with itself points to Parmenides' understanding of being. In Parmenides' understanding of being, the expression "being exists; what does not exist, does not exist" is the same as the expression "being is what it is" in Sartre. Sartre, in his work *Being and Nothingness*, expressed this situation as follows: Being is the most insoluble of all syntheses: it is the synthesis of itself. It is the synthesis of itself among all syntheses. The result that is clearly understood from this situation is that the being is isolated with its own existence and being can never enter into a relationship with what is not itself. In Sartre, being-in-itself opposes non-existence, being-in-itself cannot be shown by anyone other than itself. According to Sartre, being-in-itself is "full of itself (Sartre, 1984: 28).

Being in itself was not created. Sartre has applied the principle of identity to being-in-itself so deeply that it is thought that being-in-itself has not been created in accordance with this principle. According to Sartre, creation from nothing is

impossible. If being were created, Being-in-itself would express the absence of being-in-itself and this would be nothing but the existence of God (Sartre, 1984: 27).

Being-in-itself is neither deduced from the possible nor reduced to the necessary. Necessity is not about what exists, but about the relationship between ideal propositions. The being of the phenomenon cannot be deduced from the cause of other beings. What we mean by this is; being-in-itself has no principle of existence in itself. Being-in-itself cannot be derived from the possible, nor can it be reduced to the necessary. In this sense, being-in-itself is pure contingency. That is, It is equally probable that existence in itself exists or that it does not exist (Sartre, 2005: 181). Finally, the following can be said for being-in-itself: Being exists. The being is in itself. Being is what it is (Sartre, 1984: 29).

Being-in-itself is the ground of reality outside of consciousness. 'Being-for-itself' is the concept of 'consciousness'. For Sartre, being for itself is identical with consciousness or with human reality as a conscious being (Sartre, 2003: 19). "Being-for-itself" is meaningless without "being-in-itself". "being for itself" came into being through nothingness. The origin of nothingness can not knowable. For this reason, ambiguity prevails about the existence process of "being for itself". Because being for itself appeared in being-in-itself, which first existed in mass. Afterwards, the being for itself, which tries to understand what it is, is again drowned in nothingness due to the fact that it constantly creates itself in this search process. That is, this being, which exists within the scope of being in itself, wants to make sense of itself. In this sense, it has a feeling of emptiness. Being for itself, which constantly clings to different thoughts in order to get rid of this emptiness, becomes an absence that cannot be filled in an absolute sense, since there is no reality that it can hold onto. Being for itself is constantly renewed with new information. In this sense, it comes from nothingness and returns to nothingness. That is, being for itself, which is nothingness at the beginning, eventually becomes nothingness (Karakaya, 2004: 81).

So, while researching being in the philosophy of existence, we generally see that we are suddenly surrounded by nothingness. is again non-being that demarcates the answers given to questions about being or conditions questions about being. Whatever the being is will be obtained on the basis of what it is not necessarily. Whatever the being may be, it can be formulated as follows: Being is this and nothing other than that. Thus we encounter a new unifier of the real: non-being (Sartre, 2009: 52).

In this sense, Heidegger, like Sartre, defends the inevitability of encountering something called non-existence or nothingness, on the basis of the questioning of being. According to Heidegger, every question of being is directly related to human existence, and it is a question that can only be asked as a question in which

man is involved. Heidegger argues that man's cognitive contact with being can be of two types: Heidegger argues that the cognitive contact of human with being can be in two ways: The first is to grasp the being in its entirety, and the second is to be in the totality of the being. According to Heidegger, the former is impossible. The second occurs in a permanent form within our being. Therefore, Heidegger believes that in order to discover the nature of the nothingness, which is the denial of being with its totality, it is necessary to first discover the being in its entirety. The source of this discovery is what the philosopher calls abysmalboredom (Heidegger, 2001:6).

In Heidegger, abysmalboredom is that being is totally stooped over Dasein, and it has not yet experienced nothingness. The experience of nothingness takes place in anxiety (angst), which is another spiritual condition and is also manifested in abysmalboredom. Anxiety is the wholeness of the being that turns towards us and returns. There is nothing that holds existents apart from the totality of being. Because what exists is slipping away, what remains behind and surrounds us is 'nothingness'. In anxiety, there is a unity between nothingness and the totality of being. The nothingness reveals itself totally in the vanishing being. In other words, the integrity of the being, which dissolves and disappears with nothingness, occurs in "unity" (Heidegger, 2001: 8).

For Heidegger, Dasein is existence: it means what is here, now. In philosophy of Jaspers, Dasein corresponds to the being of the objective, which he qualifies as presence. Because, according to Jaspers, dasein means concrete and real or objective reality, which cannot think about itself and therefore has no knowledge about itself. Jaspers characterizes objectivity as a feature of dasein that is unaware of its own existence and has in common with other beings who are objective and he asserts that we are first dasein, and because we are dasein we exist as an objective reality (Jaspers, 1997:302-310). Therefore, in Jaspers, dasein is In Jaspers, dasein is the dimension of existence of man, who is in the world, reacts to his environment, corresponds more to the objective aspect of man, and can therefore be known by making it the subject of scientific research.

As a result, it is seen that the starting points of the existential philosophy's understanding of being are the human existence. Existential philosophers have examined the desires, wishes and concerns of man, starting from his existence as a living creature and turning to the inner world of man. Therefore, an existence study on existentialism corresponds to man and his existential situations.

Conclusion

Existential philosophy is a movement that tries to find out what the meaning of being is by emphasizing the priority of existence. Existentialism is based on individual experience. For this reason, existential philosophers have investigated what the meaning of man is. They took into account the existential state of the human being while conducting being research. According to existentialists, human is thrown into the world, that is, into the world of objects. Therefore, according to existentialists, existence precedes essence. Later (after being thrown into the world of objects) human has designed his/her own essence. Human is in the position of a project for him/herself. Human decide for him/herself what he/she wants to be. Therefore, human is a free being.

Existentialism asserts that existence is always particular and individual. Existentialism thinks that existence is primarily a problem of being, a problem of its own mode of being and thus embarks on the search for the meaning of being. Existentialism evaluates the individual in a position in the process of existence. For this reason, existentialism emphasizes subjectivity. At this point, the most basic feature of existential philosophy is existential experience. Existential philosophers based on existential experience realize this existential experience from the perspective of the actor, not the observer's point of view. The existential experience that existential philosophers put forward by living and understanding takes place not in a world in which we isolate ourselves, but in this world, that is, with the environment. Each philosopher has expressed the existential experience in different ways. Therefore, existential philosophy is a philosophy of being without a system.

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Chapter 11

The Effect of Inflation and Interest Rate on Borsa Istanbul

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Introduction

The primary objective of a company is to maximize its market value. Market value is measured by stock certificates. An increase in the price of the stock is interpreted as appreciation on behalf of the company. A decline means that the market value of the company decreases. The price of the stock is determined by the amount of supply and demand in terms of market conditions. The change in supply and demand is shaped by the news and information coming to the market. Certain information causes prices to increase while certain information causes prices to decrease. Any information coming to the market is an element of risk, and these risk factors explain price changes. Financial theory classifies these risk factors as systematic risk and unsystematic risk. Interest rate and inflation are risk factors.

In financial markets, central banks maintain financial stability by means of monetary expansion or decreasing the amount of money in the market with their monetary policy. In an environment where the central bank encourages the market, it increases the amount of money in the market and lowers the interest rate. A fall in the interest rate results in an increase in consumption and investment. In other words, economic growth is supported. In a growing economy, companies' profits and market values rise. If the central bank takes the opposite action, the economy shrinks, and the stock prices of companies are depressed.

According to Besley & Brigham (2011, p. 87), interest rates have two impacts on company profits. First, because interest is a cost element, the higher the interest rate, the lower a company's profits are. Second, interest rates affect the level of economic activity, and economic activity affects company profits. Moreover, in the case that interest rates rise sharply, investors can earn higher returns in the bond market, encouraging them to sell stocks and transfer funds from the stock market to the bond market. Selling large volumes of stock in response to rising interest rates lowers stock prices.

The initial theoretical explanation of the connection between inflation and interest rates was made by Irving Fisher. According to Fisher (1930), the nominal interest rate in an efficient market fully reflects available information about possible future inflation rates. Expected nominal interest rates on financial assets move linearly with expected inflation. Therefore, the nominal interest rate is explained as the sum of the real interest rate and the expected inflation rate.

In his study, Pindyck (1983, p. 3) argues that from January 1965 to December 1981, the New York Stock Exchange Index fell by about 68 percent in real terms, and the average real return measured by this index was close to zero. He explains that the reason for this situation was the simultaneous increase in the average inflation rate. In other words, when inflation rises, the net return of the stock falls.

Moreover, inflation also lowers the real value of the company's debt and reduces the net real return on bonds.

Alvarez, et al. (2001, p.1) argue in their study that increases in average money growth rates are associated with equal increases in average inflation rates and interest rates. One of the ways to control inflation is to increase short-term interest rates and reduce money growth in the face of increases in inflation. This situation is explained as withdrawing money from the system by selling bonds. Another possibility is the control of monetary aggregates. Thus, low long-term average inflation rates are achieved.

Apergis & Eleftheriou (2002, p.231-232) argue that changes in stock prices reflect changes in investors' expectations regarding the future values of certain economic variables that directly affect stock prices. The relationship between stock prices and nominal interest rates is measured by an investor's ability to switch the structure of his or her portfolio between stocks and bonds. In particular, an increase or decrease in interest can cause the structure of the investor's portfolio to change in favor of or against the bond.

Gu et al. (2021) argue in their study that the interest rate is the cost of using capital. When the central bank tightens monetary policy by adjusting interest rates, it raises the cost for companies and lowers investors' expectations of certain companies' prospects. This could cause share prices to drop.

On the other hand, Mishkin (2004, p.414) states that the price stability target often conflicts with the short-term interest rate stability and high employment targets. For example, both inflation and interest rates may begin to rise as the economy expands and unemployment falls. This may cause the economy to overheat and stimulate inflation. In this case, unemployment may increase in the short run if the central bank raises interest rates to prevent inflation.

Bagliano & Beltratti (1997, p. 140) state that there is a negative relationship between both inflation and stock returns and between expected inflation and stock returns. In this study, the effects of inflation and interest rate on the Borsa Istanbul were examined. Although the determination of this effect is considered a conventional issue, according to a search of the literature, it will be the first study about the Borsa Istanbul written in a foreign language.

An autoregressive and distributed lag (ARDL) Model was used for model estimation in the study. The advantage of the model is that it shows the short- and long-term relationship between the variables together. Another advantage is that the series do not need to be stationary in time series analysis. The disadvantage of the model is that it does not provide information about possible structural breaks in the series. In the study, a dummy variable was used to eliminate this disadvantage. In this context, hard evidence was presented regarding the accuracy

and reliability of the findings. Generally speaking, this study indicates that both the interest rate and inflation affect stock prices. Identifying this impact provides important information to investors, policy makers and the public.

Literature Review

Table 1 shows a summary of studies examining the relationship between inflation, interest rate, and stock returns. When Table 1 is analyzed, it may be seen that inflation and interest rates affect stock prices. There are combined findings about the direction and level of this effect. However, it is understood that there is no study that examines the Borsa Istanbul under this title in the foreign literature.

Table 1
Inflation, Interest Rate, and Stock Prices

Authors	Countries	Periods	Methods	Purpose of the study	Results
Schwert, 1981	USA	1953-1971	First-order moving average process	Reaction of stock prices to new information about inflation	Although the magnitude of the reaction is small, the stock market reacts negatively to the announcement of unexpected inflation.
Gultekin, 1983a	Twenty-six countries	1947-1969	Time series regression	Examination of the relationship between common stock returns and inflation	In most countries, there is no consistent positive relationship between stock returns and inflation.
Gultekin, 1983b	USA	1952-1979	Time series regression	The relationship between expected stock returns and expected inflation	Unexpected inflation has a significantly negative impact on stock returns. In addition, there is a positive correlation between expected real returns of common stocks

					and expected inflation.
Feldstein, 1983	USA	-	Simple model	The examination of the inverse relationship between high inflation and low share prices	This inverse relationship is not haphazard or incidental to other economic events. On the contrary, the negative impact of increased inflation on share prices is due to tax laws.
Geske & Roll, 1983	USA	1947-1980	ARIMA	The relationship between stock returns and inflation	Contrary to economic theory and common sense, stock returns are negatively correlated with both expected and unexpected inflation.
Sweeney & Warga, 1986	USA	1960-1979	A two-factor APT	To examine whether companies must pay an upfront premium to investors to take on the risk of interest rate changes	There is evidence that most interest-sensitive stocks are in the utilities sectors and that the interest factor is priced by the market.
Titman & Warga, 1989	USA	1979-1982	Regression	The examination of whether stock returns predict changes in interest rates and inflation	There is a statistically significant positive relationship between stock returns and future inflation rate changes as well as a significant positive relationship between stock returns and future interest rate changes.
Lee, 1992	USA	1947-1987	VAR	To examine whether asset	The results show that,

				returns are part of a causal relationship between real activity and inflation	while interest rates explain the change in inflation to a significant extent, inflation has little effect on stock returns.
Bagliano & Beltratti, 1997	Italy	1963-1995	Structural VAR	To examine whether there is both long- and short-run relationship between stock prices and other macroeconomic variables.	There is a negative relationship between the inflation rate and the real stock price index in the long run.
Apergis & Eleftheriou, 2002	Greece	1988-1999	ARCH	To examine the relationship between stock prices, inflation, and interest rates.	The results provide evidence in favor of the relationship between stock prices and inflation.
Wongbangpo & Sharma, 2002	ASEAN countries	1985-1996	Johansen cointegration, VECM	To investigate the role of macroeconomic variables on stock prices	Although there are mixed results, there is a positive relationship between inflation and stock prices, with negative interest rates.
Tessaromatis, 2003	UK	1988-2002	OLS Regression	The sensitivity of the stock market to interest rates and inflation.	There is a negative relationship between stock returns and nominal and real interest rates. Also, the correlation between interest rate and inflation is close to zero.
Laopodis, 2006	USA	1970-2004	VECM	To examine the stock market as the dynamic relationship	It is seen that there is no consistent dynamic

				between economic activity, inflation and monetary policy	relationship between monetary policy and stock prices.
Hasan, 2008	UK	1968-2003	Linear regression and VECM	To examine the hypothesis of Fisher's theory of interest	It reveals a positive and statistically significant relationship between stock returns and inflation, which indicates that common stock is a useful hedge against inflation.
Bordo, et.al., 2008	USA	1953-2005	VAR	To examine the relationship between inflation, monetary policy, and stock market conditions	The results show that inflation and interest rate shocks have large, negative effects on real stock prices and stock market conditions.
Alam & Uddin, 2009	Fifteen developed and developing countries	1988-2003	Panel Data Analysis	The relationship between the stock price and the interest rate	For all countries, the interest rate has a significant negative relationship with the stock share price.
Jareño, & Navarro, 2010	Spain	1993-2005	Seemingly unrelated regression	To examine the ability of companies to transmit inflation shocks to the prices of the products and services they sell	Nominal interest rate changes resulting from changes in expected inflation have a limited effect on stock prices.
Geetha, et.al., 2011	Malaysia, USA, and China	2000-2009	VECM	The relationship between inflation and stock returns	The results show that there is a long-run relationship between stock returns and expected and unexpected

					inflation, within the framework of short-run and long-run distinctions.
Khan et al., 2012	Pakistan	2001-2010	Multiple regression	The effect of interest rate, exchange rate and inflation on stock returns	The results show the existence of a weak relationship between the variables.
Reddy, 2012	India	1997-2009	Simple regression	The effect of the real gross domestic product, interest rates, and inflation rates on stock prices	While the decrease in the interest and inflation rate causes the stock prices to increase, the increasing growth has a positive effect on the stock prices.
Eita, 2012	South Africa	1980-2008	VECM	The relationship between stock market returns and inflation	The results revealed that stock market returns and inflation are positively related. An increase in inflation causes an increase in stock prices.
Pimentel & Choudhry, 2014	Brazil	1986-2011	VAR	The effect of high inflation and interest rates on stock returns	The results show that there is a bidirectional relationship between stock returns and inflation. It also explains future changes in interest rates, inflation, and stock returns.
Jareño, et.al., 2016	USA	2003-2013	Quantile regression	To examine the sensitivity of the stock market based on nominal and real interest	The results show that the stock market has a significant

				rates and inflation	sensitivity to changes in interest rates and inflation and finds differences between sectors and over time.
Akbar, 2019	Indonesia	2008-2018	Descriptive research	The effect of the exchange rate and inflation and interest on stock returns.	The results show that a low inflation rate will cause a decrease in the company's production costs, interest rates have a significant effect on stock returns, and the exchange rate has no significant effect on the stock.
Eldomiaty, et.al., 2020	USA	1999-2016	Panel Johansen cointegration, VECM	The effect of inflation and interest rate on stock prices	Changes in real interest rates and inflation rates cause significant changes in stock prices.
Alqaralleh, 2020	G7 countries	2000-2019	Nonlinear, ARDL	The relationship between stock returns and inflation	Stock returns often give an asymmetrical response.
Bekaert, et.al., 2021	USA, Euro Zone, and Japan	1990-2010	Best linear model regression	The effect of monetary policy and risk shocks on short-term interest rates, stocks and long-term bond.	The effect of monetary policy on asset prices is mostly seen on the interest rate.
Fullana et al., 2021	-	1960-2017	SVAR	The reaction of stock market returns to monetary policy shocks	In the scenario defined by positive shocks and expansion periods, monetary policy does not have a significant

					effect on stock returns.
Asiedu et al., 2021	Ghana	2010-2016	VECM	The effect of inflation and interest rate on stock returns	The results show that inflation and interest rates have a negative effect on overall stock market performance in the long run.
Umaryadi, et. al., 2021	Indonesia	2014-2019	Multiple linear regression	The effect of interest rates and inflation on the stock returns of digital-based mass media companies	The results show that the interest rate variable has a negative and significant effect on stock returns, while the inflation variable has a positive and insignificant effect on stock returns.
Kusumaningtyas et al., 2021	Indonesia	2015-2019	Partial least square	The relationship between stock returns and interest rates, inflation, and exchange rates in the banking sector.	Interest rates, inflation, and exchange rates have a negative effect on stock returns, while profitability has a positive effect on stock returns.
Nurwulandari, et.al., 2021	Indonesia	2012-2018	ARCH, GARCH	The effect of interest rates, exchange rates, world gold prices, and other world indices on the stock exchange market	The interest rate and the world gold price have a non-significant negative impact on the stock exchange market.
Moussa & Delhoumi, 2021	MENA region	1998-2018	Nonlinear ARDL	The effect of interest rates and exchange rate fluctuations on the market index	The results show that the asymmetry hypothesis is valid only for the short run and that the market index is

					sensitive to changes in the interest rate and exchange rate.
Wen et al., 2022	G7 and BRICS countries.	2007-2018	Quantile on-quantile estimates	The effect of monetary policy uncertainty on stock returns	There is a reciprocal relationship between monetary policy uncertainty and stock returns. These relationships differ between markets.

The Scope and Aim of the Study

The purpose of this study is to examine the effect of inflation and interest rates on the Borsa Istanbul. In this framework, the BIST100 Index, the consumer price index (CPI), and the interest rate (IR) series are used. The period examined in the study, in which monthly data are used, is between January 2003 and April 2022. The data used in the study were obtained from the Central Bank of the Republic of Turkey. Contrary to the conventional approach, this subject, which is based on the Borsa Istanbul, is elaborated for the first time in the foreign literature.

Econometric Methodology

The Autoregressive and Distributed-Lag (ARDL) Model

According to the study conducted by Murthy & Okunade (2016, pp. 67-68), an important requirement for performing a cointegration analysis is to determine whether the data series at levels are stationary or non-stationary. Unlike other cointegration estimators, the autoregressive distributed lag (ARDL) approach does not require pretesting of the integration queues. Pesaran et al. (2001) showed that the ARDL approach can be used to determine the existence of a long-run equilibrium relationship regardless of whether the variables used in the cointegration analysis are stationary, $I(0)$, or non-stationary. ARDL coefficients estimates are consistent within small samples. Error correction modeling through ARDL cointegration explains both short-term and long-term causality.

In this study, the following points were taken into consideration regarding the selection of the ARDL method (Murshed, 2021, p.706). First, it is suitable for processing variables integrated at the $I(0)$ level or the first difference, $I(1)$. Second, it estimates both short- and long-term elasticities unlike other traditional regression techniques which mostly estimate long-term elasticities. Third, it can

use different lag lengths for different variables added to the model. Fourth, it deals with autocorrelation and endogeneity problems in the model. Finally, it can produce unbiased elasticity estimates involving short time series models. In contrast, the ARDL method is not valid if the variables are integrated in the second difference, I(2). Also, the method does not consider structural breaks within the series. A dummy variable was used to solve this problem.

Regarding the selection of the ARDL model, similar explanations are made in the studies conducted by Akinlo (2006), Nkoro & Uko (2016), Jordan & Philips (2018), Skripnuk et al. (2019), and Hashmi et al. (2021). As stated in the study conducted by Luqman et al. (2019, p. 1302), the ARDL method shows both the effects of changes in the internal indicator in the previous periods on the indicator value in the current period and the effects of other external variables.

The mathematical form of the method is as follows:

$$\Delta Y_t = \mu + \rho Y_{t-1} + \theta X_{t-1} + \sum_{j=1}^{p-1} \alpha_j \Delta Y_{t-1} + \sum_{j=0}^{q-1} \pi_j \Delta X_{t-1} + \varepsilon_t \quad (1)$$

Delta is the first difference operator, Y_t is the dependent variable, m is an intersection, X_t is the $k \times 1$ regressor vector, r and q are the long-run coefficients, and α_j and π_j are the short-run coefficients. p and q represent the delay order of the variables, and ε_t is the white noise error term.

As a result, the ARDL method has three advantages compared to other previous and traditional cointegration methods (Belloumi, 2014, p. 277-278). First, ARDL does not need to integrate all the variables studied in the same order. The second advantage is that ARDL testing is relatively more efficient in case of small and finite sample data sizes. The third and final advantage is that we obtain unbiased estimates of the long-term model by applying the ARDL technique.

The ARDL equations used in this study are as follows:

$$D(\log(Bist100_t)) = a_{01} + b_{11} \log(Bist100_{t-1}) + b_{21} \log(consumer\ price\ index_{t-1}) + b_{31} \log(interest\ rate_{t-1}) + \sum_{i=1}^p a_{1i} D(\log(Bist100_{t-1})) + \sum_{i=1}^p a_{2i} D(\log(consumer\ price\ index_{t-1})) + \sum_{i=1}^p a_{3i} D(\log(interest\ rate_{t-1})) + \varepsilon_{1t} \quad (2)$$

$$D(\log(consumer\ price\ index_t)) = a_{01} + b_{11} \log(Bist100_{t-1}) + b_{21} \log(consumer\ price\ index_{t-1}) + b_{31} \log(interest\ rate_{t-1}) + \sum_{i=1}^p a_{1i} D(\log(consumer\ price\ index_{t-1})) + \sum_{i=1}^p a_{2i} D(\log(Bist100_{t-1})) + \sum_{i=1}^p a_{3i} D(\log(interest\ rate_{t-1})) + \varepsilon_{2t} \quad (3)$$

$$D(\log(interest\ rate_t)) = a_{01} + b_{11} \log(Bist100_{t-1}) + b_{21} \log(consumer\ price\ index_{t-1}) + b_{31} \log(interest\ rate_{t-1}) + \sum_{i=1}^p a_{1i} D(\log(interest\ rate_{t-1})) + \sum_{i=1}^p a_{2i} D(\log(consumer\ price\ index_{t-1})) + \sum_{i=1}^p a_{3i} D(\log(Bist100_{t-1})) + \varepsilon_{3t} \quad (4)$$

When all variables are as previously defined, $\log(.)$ is the logarithm operator, D is the first difference, and ε_t is the error terms. The bound test is basically based

on the non-standard composite F statistic of the asymptotic distribution under the null hypothesis of no cointegration.

The Autoregressive and Distributed-Lag (ARDL) Model Results

In the application phase of the model, the study by Erdoğan & Bozkurt (2008, p. 29) was used. According to the authors, while the series should be stationary in vector autoregressive models (VAR), the series can be stationary at different levels in vector error correction models (VECM). In Johansen cointegration models, the series must be stationary at the same levels.

The ARDL method used in the study was also analyzed without the need for stationarity information of the series. This provided a flexible application opportunity for the ARDL method. In such evaluations, causal relationships between series are examined rather than estimating parameters.

In the first step of the ARDL method, the optimal delay is determined. Table 2 shows the optimal delays relative to the system. Accordingly, the optimal delay of the dependent variable Bist100 is 1, the optimal delay of the first-order independent variable consumer price index is 3, and the optimal delay of the second-order independent variable interest rate is 1. In addition, Table 2 presents an a priori assessment showing the long-run relationship between variables. Parameter estimates for the independent variables presented in this framework are relatively insignificant.

At this stage, the variables need to be changed sequentially, and the same analysis should be done again. When the dependent variable is CPI, the optimal delay is 12, 0 for the first argument BIST100, and 1 for the second argument IR. When the dependent variable is IR, the optimal delay is 12, 0 for the first argument BIST100, and 1 for the second argument CPI. Evidence for this is given in Appendix B and Appendix C. On the other hand, the DLOG expression in the tables shows that the logarithmic difference of each series is taken.

Table 2 *Optimal Lag*

Dependent Variable: DLOGBIST100				
Method: ARDL				
Sample (adjusted): 5 232				
Included observations: 228 after adjustments				
Maximum dependent lags: 12 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (12 lags, automatic): DLOGCPI DLOGIR				
Fixed regressors: C				
Number of models evaluated: 2028				
Selected Model: ARDL(1, 3, 1)				
Note: final equation sample is larger than selection sample				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DLOGBIST100(-1)	-0.063684	0.064464	-0.987904	0.3243
DLOGCPI	-0.582583	0.488495	-1.192608	0.2343
DLOGCPI(-1)	1.641290	0.556467	2.949482	0.0035
DLOGCPI(-2)	-0.662280	0.554656	-1.194037	0.2337
DLOGCPI(-3)	0.380704	0.465762	0.817378	0.4146
DLOGIR	0.200358	0.111187	1.801987	0.0729
DLOGIR(-1)	-0.493415	0.111639	-4.419745	0.0000
C	-0.004687	0.006890	-0.680248	0.4971

In the second stage, the long-term relationship between the series is examined. The hypotheses regarding this are formed as follows: H0: there is no long-term relationship; H1: there is a long-term relationship. Since the upper limit value of the relevant criteria, the 69.71 F statistic calculated in Table 3, is greater than 3.35, the existence of a long-term relationship between the series is reached. At this stage, the variables need to be changed sequentially, and the same analysis should be done again. Since the 11.65 F statistic is calculated when the dependent variable is CPI, and the upper limit value of the relevant criteria is greater than 3.35, the existence of a long-term relationship between the series is reached. As the 15.19 F statistic calculated when the dependent variable is IR, and the upper limit value of the relevant criteria is greater than 3.35, the existence of a long-term relationship between the series is reached. Evidence for this is given in Appendix B and Appendix C.

Table 3 *Long Run Form and Bound Test*

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
Asymptotic: n=1000				
F-statistic	69.71808	10%	2.63	3.35
k	2	5%	3.1	3.87
		2.5%	3.55	4.38
		1%	4.13	5
Finite Sample: n=80				
Actual Sample Size	228			
		10%	2.713	3.453
		5%	3.235	4.053
		1%	4.358	5.393

In the third step, the error correcting form of the series is checked for the certainty of the long-term relationship. For this, the long-term parameter $\text{CointEq}(-1)^*$, which indicates the lagged value of the error term, must have a significant and negative value. When Table 4 is examined, it may be seen that the imbalance between the short and long term is eliminated by 1.06% in each period. Therefore, there is a long-run relationship between the series. At this stage, the variables need to be changed sequentially, and the same analysis should be done again. The $\text{CointEq}(-1)^*$ parameter has a significant and negative value when the dependent variable is CPI. The $\text{CointEq}(-1)^*$ parameter has a significant and negative value when the dependent variable is IR. In both series, the imbalance in the short and long term disappears. Evidence for this is given in Appendix B and Appendix C.

Table 4 *ARDL Error Correction Regression*

ARDL Error Correction Regression				
Dependent Variable: D(DLOGBIST100)				
Selected Model: ARDL(1, 3, 1)				
Case 2: Restricted Constant and No Trend				
Sample: 1 232				
Included observations: 228				
ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DLOGCPI)	-0.582583	0.446443	-1.304943	0.1933
D(DLOGCPI(-1))	0.281576	0.419700	0.670898	0.5030
D(DLOGCPI(-2))	-0.380704	0.448520	-0.848801	0.3969
D(DLOGIR)	0.200358	0.099661	2.010403	0.0456
CointEq(-1)*	-1.063684	0.063266	-16.81295	0.0000
R-squared	0.573427	Mean dependent var		-0.000337
Adjusted R-squared	0.565775	S.D. dependent var		0.114694
S.E. of regression	0.075578	Akaike info criterion		-2.305609
Sum squared resid	1.273794	Schwarz criterion		-2.230404
Log likelihood	267.8395	Hannan-Quinn criter.		-2.275266
Durbin-Watson stat	1.955668			
* p-value incompatible with t-Bounds distribution.				

In the fourth step, the autocorrelation problem between the series is examined to show that the results found are interpretable. The hypotheses regarding this are formed as follows: H0: there is no autocorrelation problem between the series; H1: there is an autocorrelation problem between the series. When Table 5 is examined, it is understood that there is no autocorrelation problem between the series since the H0 hypothesis cannot be rejected. At this stage, the variables need to be changed sequentially, and the same analysis should be done again. When the dependent variables are CPI and IR, respectively, it is seen that there is no autocorrelation problem between the series in the system. Evidence for this is given in Appendix B and Appendix C.

Table 5 *Breusch-Godfrey Serial Correlation LM Test*

Breusch-Godfrey Serial Correlation LM Test:			
Null hypothesis: No serial correlation at up to 12 lags			
F-statistic	0.751615	Prob. F(12,208)	0.6995
Obs*R-squared	9.475732	Prob. Chi-Square(12)	0.6618

In the fifth stage, whether there is a structural break between the series is examined. For this, the CUSUM and CUSUM SQUARES tests used in the VAR model are examined. Two dummy variables were used in the application phase of these tests. These are the global financial crisis experienced by the collapse of the housing sector in the United States in 2007-2009 and the COVID 19 global pandemic which took place between March 2020 (when the first case was reported in Turkey) and December 2021, and whose impact still persists.

When the CUSUM test is examined, it is seen that there is no structural change between the series. When the CUSUM SQUARES test is examined, it is seen that the series significantly supports the CUSUM test, even if it deviates from the 5 percent significance level in only one region. At this stage, the variables need to be changed sequentially, and the same analysis should be done again. When the dependent variables are CPI and IR, respectively, it is seen that there is no structural change in the system. Evidence for this is given in Appendix B and Appendix C. In conclusion, the evidence put forward about the series is hard, and the interpretations remain valid.

Figures: Structural Break

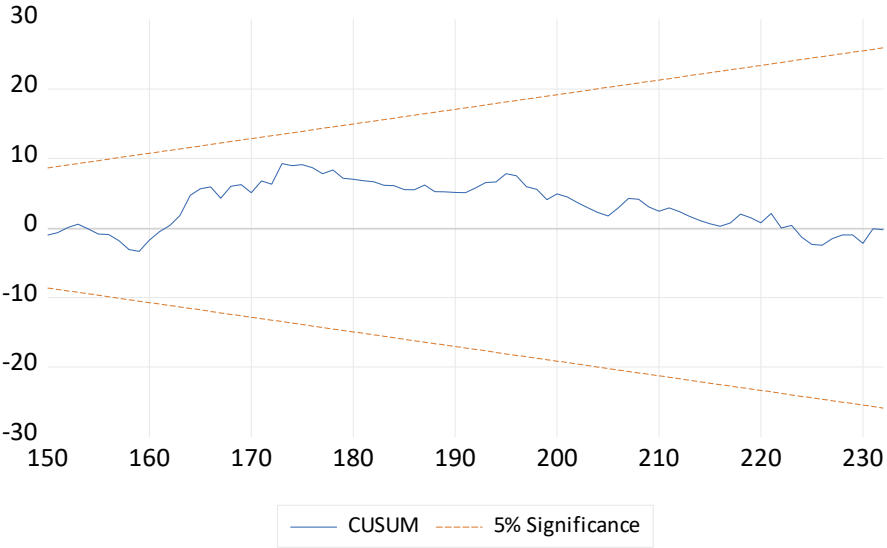


Figure 1. CUSUM

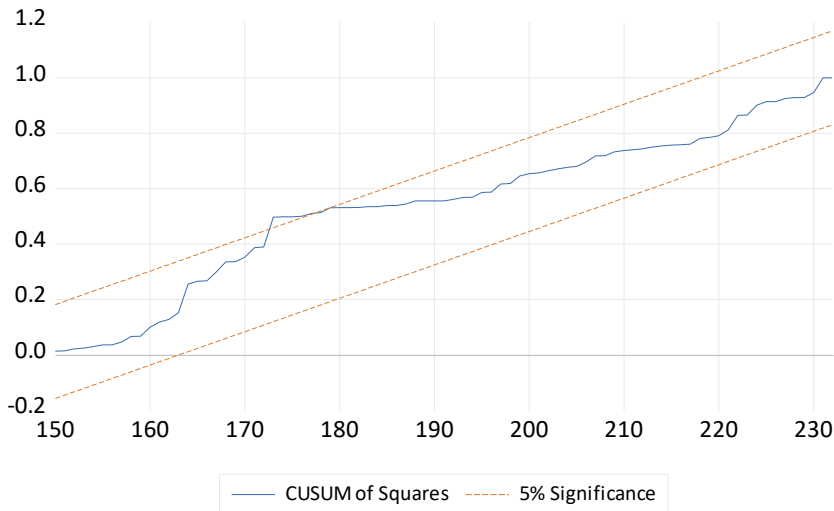


Figure 2. CUSUMQ

In this study, the effects of inflation and interest rates on the Borsa Istanbul were examined. According to the findings, there is a cointegrated relationship between inflation and interest rates and the Borsa Istanbul in the short and long run. This relationship is mutually experienced between the variables. In other words, there is a causal relationship between inflation, interest rates, and the Borsa İstanbul. This finding provides important information for individuals, investors, and the public in the decision-making process on risk diversification.

CONCLUSION

Two important results were obtained from this study. The first is from the implementation phase in which three different models were created to estimate the effect of inflation and interest rates on the Borsa Istanbul. The first model, BIST100, is the relationship between the consumer price index (CPI) and the interest rate (IR). According to Model 1, there is a cointegrated relationship between the variables in the short and long run. The second model is the relationship between CPI, BIST100 and IR. According to Model 2, there is a cointegrated relationship between the variables in the short and long run. In the third model, CPI is the relationship between BIST100 and IR. According to Model 3, there is a cointegrating relationship between the variables in the short and long run. In other words, there is a causal relationship between the Borsa Istanbul markets, interest rates, and inflation in the short and long run.. Accordingly, the stock market may react negatively to the announcement of unexpected inflation. The existence of a consistent positive relationship between

stock returns and inflation is uncertain. Also, the interest rate variable can have a negative effect on stock returns. A decrease in interest rates and inflation can increase stock prices. These findings differ due to the unique characteristics of each market.

On the other hand, in an economy with a budget deficit, the borrowing interest rate rises. In an environment where interest rates rise, companies' profits decrease, and stock prices fall. A similar situation is valid for the economy with foreign trade deficit. The cost of borrowing in foreign currency increases. The economy shrinks and the market value of companies decreases. These risk factors are valid for the Borsa İstanbul.

It is recommended that financial assets be used that minimize possible risks for companies traded on the Borsa Istanbul. Derivative products do not completely eliminate potential risks, but they can reduce potential effects.

When the interest rate is considered alone, the central bank is the most important instrument of monetary policy. When the central bank's ability to stimulate or slow down the economy is disabled, the level for the market interest rate becomes uncertain. Also, there is no single reference interest rate in the markets. On the contrary, many different interest items are traded in financial markets. All of these affect companies' cash flows and stock prices.

There are many risk factors that affect stock prices. Some of these are exchange rate, foreign trade, and commodities. For this reason, it is recommended to determine the effect on the Bursa Istanbul of the exchange rate, foreign trade, and commodity prices in future studies

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Appendix A
Dependent Variable: BIST100
Figures: Structural Break

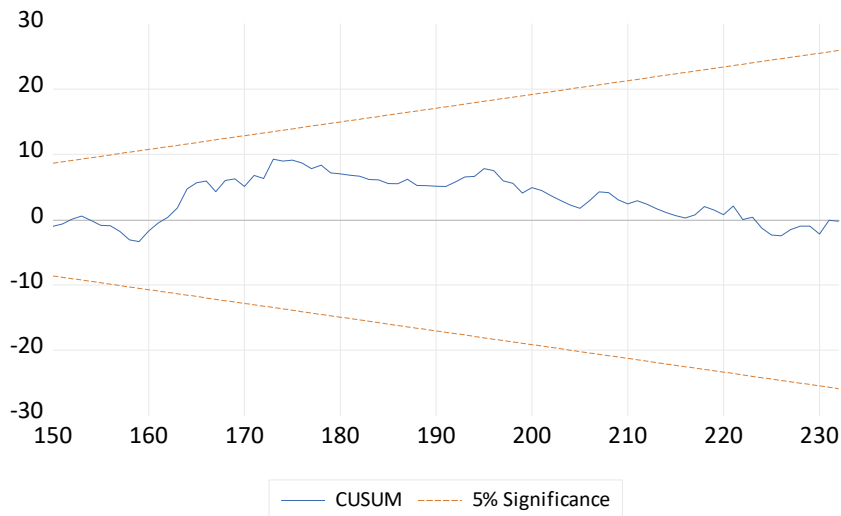


Figure 1. CUSUM

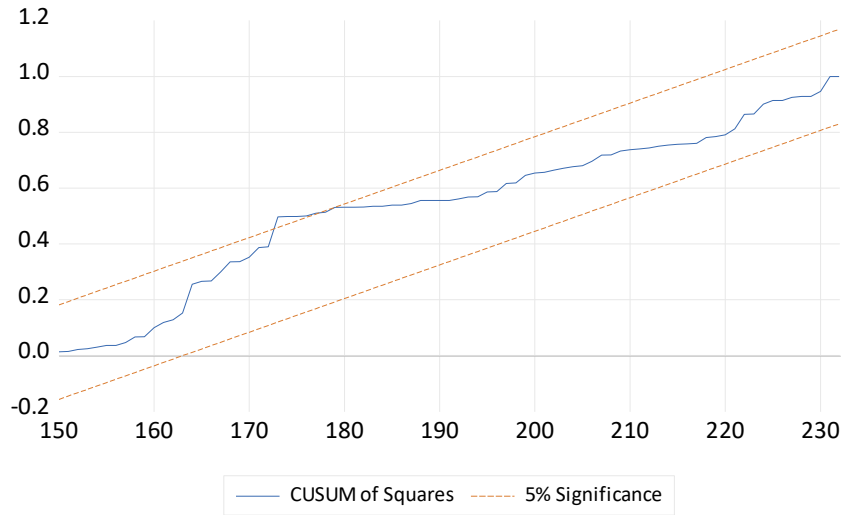


Figure 2. CUSUMQ

Appendix B
Dependent Variable: CPI
Figures: Structural Break

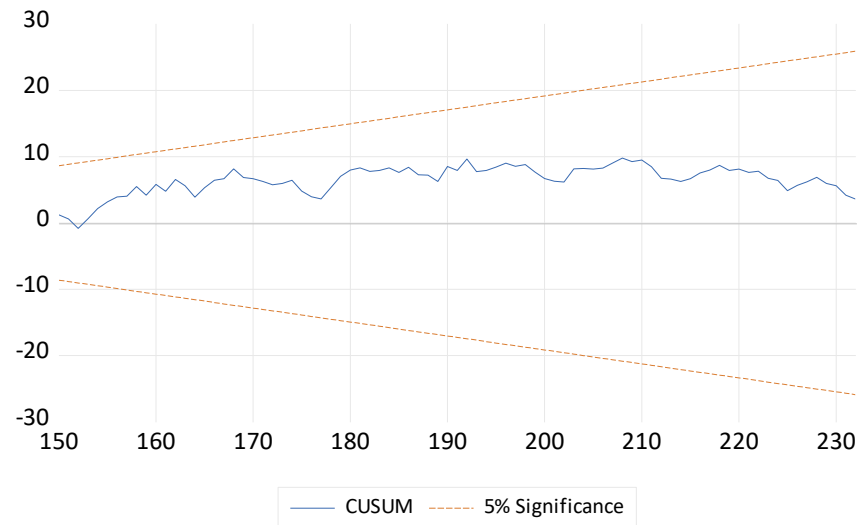


Figure 1. CUSUMQ

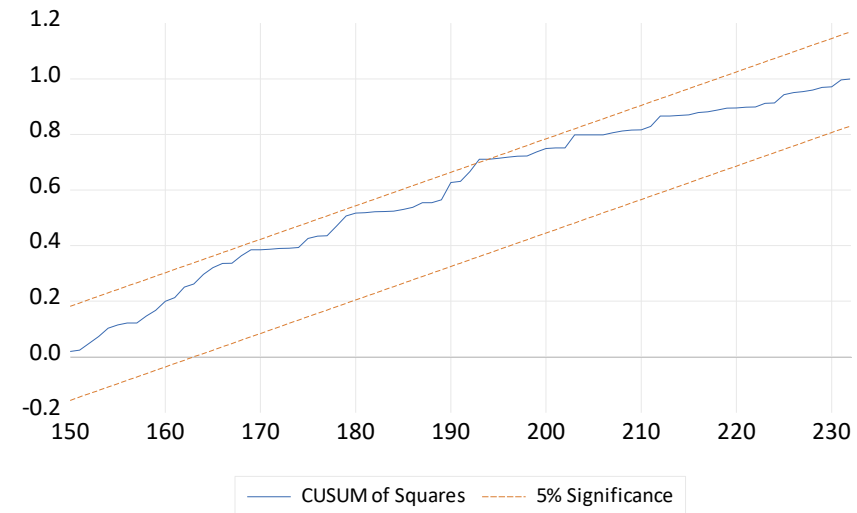


Figure 2. CUSUMQ

Appendix C
Figures: Structural Break

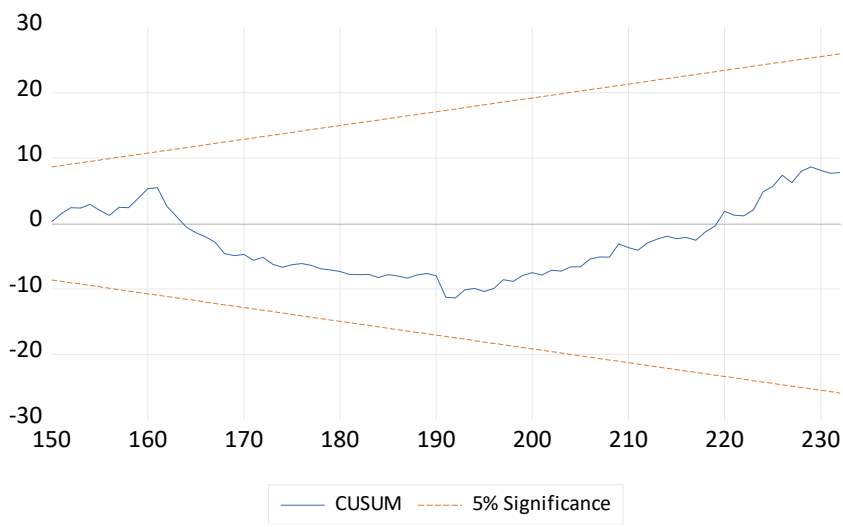


Figure 1. CUSUMQ

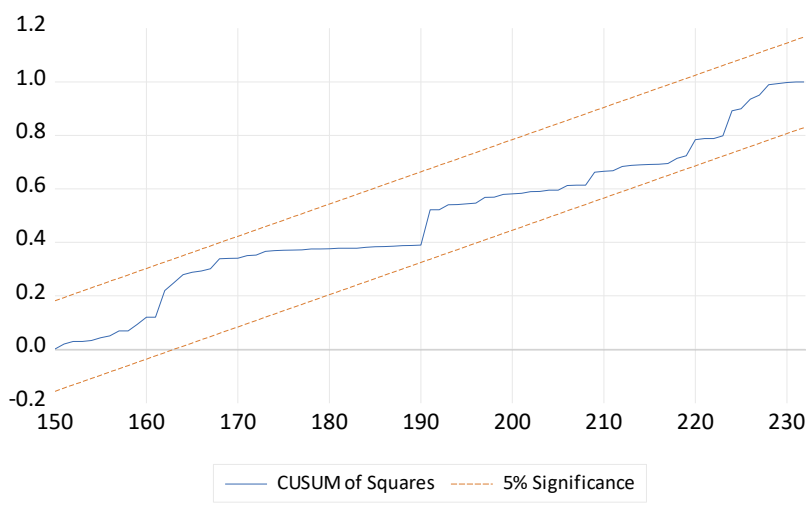


Figure 2. CUSUMQ

Chapter 12

Strategic Management And Leaders In The Spiral Of Economic Crises

Hakan GÜRSOY¹
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INTRODUCTION

Economic crises are hazardous events and situations that can negatively affect states, businesses, individuals, and therefore societies and lead to social destruction. The best example of this is the great economic crisis, which grew with the mandatory restrictions and prohibitions such as workplace closures, and curfews, as a result of the epidemic in the last year of 2019, interacting at the global level. Such economic crises can spread rapidly to all countries in a short time and affect all societies. As a matter of fact, all stakeholders were affected at the highest level by this latest crisis. Enterprises are at the forefront of the structures affected by these crisis processes and experiencing problems. The status of enterprises in the process is very important. Because enterprises make great and critical contributions to the state economy within the scope of employment and exports. Enterprises that do not have sufficient capital accumulation and cash are going through difficult processes when they cannot get enough support in the protracted crisis spiral. For this reason, the problems to be experienced in enterprises will indirectly affect both states and individuals economically and socially. In these difficult times, it is of great importance to implement strategic management practices that will bring enterprises out of this spiral and manage the process well. Again, the leader/managers who will implement it are as important as the strategic management practices. Maybe even more important. Because if there is no qualified leader who is equipped and trained against such situations, there may be a risk of not getting the necessary efficiency and results from the practices. This situation plays an important role in the survival of enterprises.

With this last crisis, it became more apparent how much the problems affect worldly life and the people involved in this life. People had to make concessions on their living standards, and their freedoms became restricted. The people who make up the society as individuals have taken their share of this crisis spiral in which the states have fallen into, in a very expensive way. Apart from the lack of wage increases, the individuals who were exposed to psychological and sociological problems as a result of unpaid wages, closure of workplaces, and decreased employment began to experience trauma with the increasing severity of economic troubles. The state, which is perhaps the only authority for the solution, had to fight against the problem together with all its stakeholders. Businesses representing employment and the workforce had an important place among these stakeholders. However, businesses had many problems, especially in economic crisis environments, from the supply of raw materials to the disruptions in the logistics chain, from the decrease in sales to their unpaid debts. These problems could only be solved by mutual cooperation and coordination.

The state should provide the necessary economic support as much as possible. However, the real question was whether businesses could overcome the problems with this support. It was an important issue what kind of way and method the enterprises would follow in the crisis spiral by using their existing opportunities. Because the systemic applications to be implemented in such global crisis environments would be different from the system applications operating in other normal times. This is where the strategic management practices to be implemented by businesses had to come into play. Strategic management practices, which are suitable for the business culture, require professional teamwork, can change and transform according to the conditions of the day, and where innovative works can be carried out, were important. Strategic studies could lead to the efficient and correct use of limited resources. Strategic management practices were important in order to get out of the crisis spiral, to re-determine the route, and reach the goals and targets.

It was inevitable to implement strategic management practices in crisis environments. But could these practices be managed by every manager/leader? Of course, it was unmanageable. As the name suggests, there is a need for professional leaders/managers who are trained in strategic applications, have sufficient experience, can establish and train the necessary team, put the plans into effect quickly, and take urgent decisions. Otherwise, in a crisis environment that will continue for a long time, the resources in the hands of the enterprises will be exhausted quickly, and a process leading to bankruptcy may be experienced, aside from achieving the goals and targets. In other words, leaders or managers who have the ability to implement strategic management practices are also needed in crisis environments.

PURPOSE OF THE RESEARCH

The purpose of this research is to find out whether the way out of the crisis is through strategic management practices in this spiral created by the global economic crises that have occurred before and to determine how important the managers/leaders who will put these practices into action are.

THEORETICAL AND CONCEPTUAL FRAMEWORK

This section is covered under three headings. As can be seen in Figure-1, the opinions of the researchers on the topics of "Economic Crisis Spiral and Its Effects on Businesses" in the first title, "Strategic Management" in the second title, and Leaders/Managers" in the third title are given.



Figure-1 Theoretical and Conceptual Framework¹

Economic Crises

If a diagnosis is to be made about what the crisis is in terms of businesses, we can describe the crises as events that can arise out of nowhere and cause irreparable wounds by deeply affecting the country's economies and thus the businesses. Whether it foretells its future or emerges out of nowhere, its consequences can be devastating. Because of these results, the economic crises affected businesses very deeply. Crises were directly related to the sustainability of businesses. It showed that during these crises, most businesses went into recession with the problems experienced in the market, they had problems sustaining their existence and reaching their goals and targets, and they even came to the brink of closure (Gultekin and Aba, 2011: 223-225; Szabo, 2011).

The most recent example of this was seen in the economic crisis caused by the developments in the covid-19 process, which started at the end of 2019 and quickly affected the whole world. Businesses in almost all countries of the world were affected by this. Restrictions and restrictions imposed by countries directly affected businesses negatively. Businesses were entering into an economic downturn, layoffs began, productivity and sales were falling, the capital was depleted day by day, receivables could not be received, payments could not be made, and the process leading to bankruptcy was accelerating. This situation, which developed in an environment of economic crisis, was indirectly reflected not only on businesses, but also on all stakeholders, as problems such as loss of workforce, decreased purchasing power, and financial difficulties. Support for businesses that wanted to get out of this crisis with the least damage was just as important, and it was essential for countries to provide all kinds of support to their businesses (Ismael et al., 2021; Zimon and Tarighi, 2021).

¹ Created by the Authors.

Strategic Management

The difficult process that emerged in the problems arising from the economic crises experienced by the enterprises was leading them to make strategic decisions. This situation highlighted the necessity of implementing strategic management practices. EU countries had developed some practices among themselves for strategic planning against such situations. It would be beneficial for businesses in EU member countries to make all their plans whether long-term or mid-term in line with the strategies of the European Union where entrepreneurial support and incentives are at the forefront taking into account the cultures of the countries where the businesses are located (Szabo, 2011).

Enterprises had to show strategic agility in such times of crisis, and try to overcome this difficult situation with the least damage by making sudden strategic decisions. He should have been able to adapt to the processes of renewal and change quickly, evaluate the situation by re-examining the conditions, and be able to resist the crisis analysis. Evaluations should be made not only from the economic side but also from the social side and the results should be analyzed well. Because such economic crises had social consequences as well as economic ones, the crisis had to be handled as a whole with all its aspects. Moreover, during the crisis periods when the negativity was at the highest level, a more challenging process was waiting for the businesses that were already in competition with each other. For this reason, it was important to have technological opportunities suitable for the conditions of the day and to renew oneself continuously. This could only be done with strategic approaches and practices (Isik, 2020: 195-196; Ograk et al., 2018: 27-33).

One of the factors that could lead businesses to collapse quickly during crisis processes was the damage and deterioration of the reputation of the business, which it gained after long periods of time. Activities that were already carried on under difficult conditions would become even more difficult in the globalizing world, where the competitive environment reached its peak. Because the company's reputation could be destroyed in a short time and this situation could reflect negatively on all stakeholders economically and socially. Taking this sensitive situation into account and preventing possible negativities also gave clues about the need for a strategic study and management. For this reason, not losing the reputation, which is an indicator of the prestige of the enterprises in the market, should be evaluated from a strategic point of view. Under these long-term competition conditions, one of the ways to fight with other market stakeholders would be possible with good management of the company's reputation. For these reasons, this issue should never have been ignored during the strategic practices and studies to prevent economic depression. In times of

crisis, it may have been necessary to apply a different strategic intervention method in terms of sustainability. Creating a positive perception of stakeholders could have contributed to the process (Kıyat and Simsek, 2018: 199-234; Sart et al., 2019: 80-81; Conte, 2018: 53-61; Fedorko et al., 2017: 48-49; Dominic et al., 2021: 1448-1466).

With the economic crisis, the costs of the enterprises were increasing compared to normal times, and the inability to pay their debts was a big problem. For this reason, they were trying to establish effective mechanisms with strategic management practices applied specifically to these times. Developing technological conditions showed that innovation and change and self-renewal were essential for businesses to survive in times of crisis. With these mechanisms, it was envisaged that productive studies would be made on strategic decisions such as how to manage and spend the capital, keeping liquidity, and not making purchases such as new fixed assets in a planned manner. Businesses would be able to overcome this difficult process with such management and savings measures. In order to maintain their sustainability in the face of these changing situations, businesses had to use their own resources carefully. This could have been achieved through strategic practices where strategic decisions would be made. However, the sustainability systems implemented by businesses while maintaining their existence had to be adapted to strategic management practices in this process, that is, articulated. Applications that are suitable for crisis conditions, updated, with different perspectives but taking into account the organizational culture would play a critical role in the fate of businesses and contribute to increasing productivity (Erol and Atmaca, 2016: 175-176; Batista and Francisco, 2018: 9-10; Nunhes et al., 2020: 18).

Leader/Managers

Strategic practices that businesses will make in order to resist the devastating crisis results, reach their goals, and survive could only be realized with brave managers and leaders who have knowledge and experience in this field. Because times of crisis required different strategies from normal times and required special measures to be taken in accordance with the structure of businesses. All studies on these issues clearly showed that leaders/managers had critical importance in all processes from before and after the crisis. However, in order for these strategic practices to be implemented by the leaders, other stakeholders had to trust their leaders. The existence of a positive relationship between leaders and trust in the organization was determined as a result of the research. The trust problems of the stakeholders, who did not know what to expect in crisis environments, and who got worried and panicked, were also an important factor.

In order to eliminate these insecure situations, important duties fell on the leaders. They were leaders or managers who were strategically equipped to overcome their fears and gain their trust in matters such as their receivables being paid on time or being fired. In times of economic crisis, it was of particular importance to take measures in accordance with the organizational culture. If the measures to be taken in accordance with the business were to be compatible with the organizational culture consisting of the feelings, thoughts, and beliefs of the stakeholders about the organization, it was necessary to reduce the concerns of the stakeholders about insecurity. Because these concerns could cause the organization to experience even more troublesome situations in these difficult times. This situation could only be overcome with leaders who have strategic teachings, characteristics, talents, and skills (Ograk et al., 2018: 27-33; Gormezoglu Gokcen, 2019: 322-331; Gumustas, 2021: 141-148; Kacay, 2018: 82-90).

Enterprises would implement strategic management practices in order to establish their sustainability on solid ground, survive in competitive conditions, and reach their goals and objectives. However, in order to put these practices into action and achieve success, there was a need for leaders and senior management teams who could adapt this philosophy to the organization, produce solutions to problems, and make correct and strategic decisions. Being unprepared and not taking precautions could have dragged the businesses to bankruptcy when it was obvious how the companies caught in the crisis faced difficulties. For this, managers/leaders had to make strategic decisions. These decisions could only be implemented by displaying a strategic management style. Strategic practices should be carried out with all team members, and business plans should be kept up-to-date against crises. Unfortunately, the prescription of the truth was bitter, but avoiding the truth and implementing these plans could lead to problems with dire consequences. Especially here, it was necessary to give importance to the culture of the enterprise, to take this as a basis during strategic applications, and to receive training if necessary. This was also important for the success of the business and its competition with other businesses. However, not only leaders but also other employees should be included in strategic plans with different approaches according to their status, they should be trained in strategic implementation, and they should be prepared for such situations and act consciously. These activities, which would increase productivity in normal times, would be even more important in times of crisis and would enable businesses to reach their goals and objectives by removing them from difficult situations (Markova and Lenoskova, 2015: 637; Gultekin and Aba, 2011: 223-225; Warrick, 2017; Nicolaescu et al., 2015: 860-865).

DESIGN AND METHOD

In this study, the design model form created by the authors was used. Study; It consists of a “summary”, “Introduction”, “conceptual framework”, “design and method”, “discussion and findings” and “result” sections. First of all, after giving information about the economic crisis, the answers to the questions of "what kind of method and application method should be followed" and "how they should work with leaders/managers" were sought first.

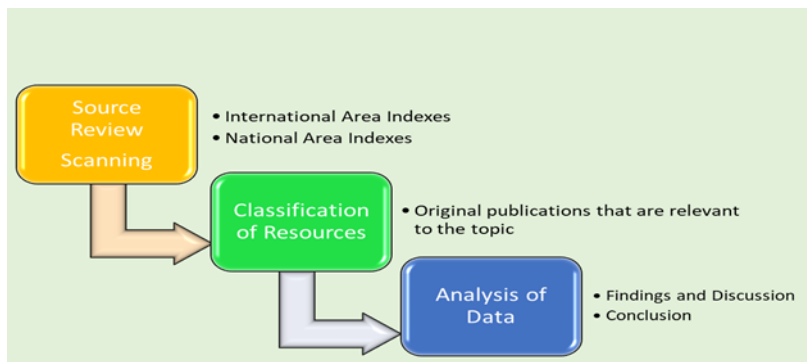


Figure-2 Sourcing and Analysis of Resources²

Again for this study, the "Supporting Research" working system and the "Documentary Resource Compilation" method were used in order to analyze and analyze the studies of the researchers (Seyidoglu, 2009: 36-48). All articles, projects, books, etc. related to the subject. The sources were meticulously examined and collected in a pool. The studies of the researchers gathered in this pool were first compiled and brought together, and the ones suitable for this study were included in the analysis pool to be examined after filtering. Research made after the global economic crises and highlighting the strategic management practices and the leadership/manager qualifications that can manage this period were filtered and other research was left out of the scope. All the resulting data were reflected in the study by turning them into summary paragraphs as a result of the analysis.

FINDINGS AND DISCUSSION

Enterprises are working to reach their goals and objectives with the measures they have taken in normal times and the policies they have implemented. However, in times of crisis, the situation works very differently from normal times. Considering that the effects of the crisis have very severe and devastating

² Created by the Authors.

effects, especially in global crisis environments, will it be sufficient to combat these problems with current practices? Are other measures necessary? Should I switch to additional applications or different applications? Are strategic applications necessary? Can current managers/leaders solve these problems? How should crisis managers/leaders be? Answers had to be sought in the form of questions.



Figure-3 Enterprises and Their Problems in Crisis Situations³

Obtained findings; It revealed the fact that long-term crisis periods had different characteristics and that strategic implementation moves had to be made. If businesses are already prepared for this issue and keep their current plans up-to-date accordingly, there was no problem anyway. And there would also be no need for an app. However, the situation showed that unfortunately most of the enterprises were caught unprepared for this. Inadequate equipment, unequipped personnel, high costs, etc. Whatever the reasons, the situation was not heartwarming at all. Therefore, it was essential to switch to strategic implementation methods and to manage businesses strategically in this process.

Another important issue was the ability of leaders/managers to manage based on their skills and abilities, and whether they were appropriately equipped or not. After all, only people who can implement strategic management practices and manage the process successfully can only there could be leaders/managers with this equipment. At the end of the day, the existence of the business was in

³ Created by the Authors.

question and there was a need for self-confident, well-equipped leaders/managers who could make decisions by producing urgent solutions to sudden events. If so, research shows that businesses should implement strategic management practices in times of crisis and they should have successful leaders/managers who can manage it.

CONCLUSION AND RECOMMENDATIONS

The research results of the researchers revealed that the existence of global economic crises is inevitable and that states, enterprises, and individuals who make up the society experience great problems after the crisis. Although the states carry out supportive studies in terms of economics, it has been observed that the results are reflected negatively on all stakeholders. This situation negatively affected individuals who lost their jobs, could not receive their wages on time or at all, received low wages, and experienced uncertainty and economic difficulties. It has been observed that enterprises that act as a bridge between individuals and the state in matters such as labor, employment, and wages in order to keep the states alive have been severely injured in these crises.

It has been seen that enterprises tend to apply strategic methods in times of global economic crises, unlike ever before, and they need well-equipped, talented, and successful leaders/managers to manage this process. In line with these analyzes;

- Transition to strategic management practices is of critical importance for businesses,

- Adequate cash capital should be allocated for strategic management practices,

- It is necessary to configure system mechanisms suitable for strategic management practices,

- It is necessary to make strategic plans and keep them up-to-date and in line with the conditions of the day,

- While preparing strategic management plans, attention should be paid to ensuring that they are compatible with the business culture and opportunities that reflect the perspective of all stakeholders,

- There should be leaders/managers who will implement strategic management plans and make important decisions,

- It is necessary to provide the necessary training and equipment support for the leader/managers who will implement the strategic management plans to be efficient, capable, and successful,

- Leaders/managers who will implement strategic management plans should manage the perception of trust well and establish trust and stability in the business,

- Leaders/managers who will implement strategic management plans should manage the reputation perception of critical importance for businesses well and manage the reputation perception of all stakeholders before the business,

- It has been concluded that strategic management leaders/managers need to establish expert teams and train these teams in order to achieve this success.

These processes have revealed the fact that global economic crises are inevitable. For the reasons listed above enterprises should keep their strategic management practices up-to-date by allocating sufficient cash for these activities before the crisis comes they should strive to have educated and equipped leaders/managers and should not avoid the costs to be incurred within their means.

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Chapter 13

The Relationship Between Intellectual Capital And Organizational Innovativeness In Tourism: A Conceptual Review

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INTRODUCTION

A rapid change and transformation is happening in every field in the world. In this age, which can be called as the knowledge and innovation age, the concepts in the business field are also in a changing process. Development in communication technologies and knowledge transfer based on globalization has increased and all management concepts and approaches have begun to change (Kandemir, 2008). In parallel with the rapid change process, tourism businesses had to adapt their management approaches, business structures, activities and functions to this new processes (Atik, 2007). In the innovation and change process, businesses make progress by using their capital factors in line with their goals and objectives. In a competitive world, businesses must have basic intangible elements such as knowledge, talent, experience, communication and skills (Ertaş and Coşkun, 2005). Tourism businesses should also develop effective strategies to gain and maintain competitive advantage in this rapidly changing environment. At this stage, first, tourism businesses should know its unique abilities well and use them on right time and at the right place (Yıldız, 2020).

The increase in technological development and globalization has led all businesses to focus on information investment rather than production investment, and thus, the concept of intellectual capital has emerged (Ertaş and Coşkun, 2005). The concept of intellectual capital has become one of the important components of competitive advantage based on new knowledge production. The most powerful companies today are not that have the largest tangible and financial assets, but companies that strengthen their intellectual capital and manage this capital in the most effective way (Yüksek, 2009). Developments in science and technology have become global, creating impact and change wherever information is produced. The change is not just a result, it has become a reality for the business world. As competition increases, the importance of creative thinking increases. The important thing for organizations is to create an environment that will reveal creative thinking and spread it throughout the organization. In this way, it will be possible to increase organizational success by using the opportunities created by creative thinking. Contemporary businesses give importance to innovation and creativity within the organization, which will provide them with significant advantages in the competitive environment. These businesses create a strong corporate culture and climate by creating a structure that allows creative ideas to be expressed and creative ideas to be implemented within the organization (Çavuş and Akgemci, 2008).

In an environment that change is the main determinant, the survival of businesses and their high-level performance capability and effectiveness depend

on their response level to sectoral changes and creating innovations suitable to environmental changes and customer demands. Considering that today's change and development is an important process, innovativeness has a vital value for businesses at the stage of adapting to sectoral changes and development (Aykanat and Yıldız, 2016). The importance of organizational innovativeness that is seen as a very dynamic capability for businesses, has been increasing recently. Businesses have to be innovative in order to survive and increase their performance in an extremely dynamic and competitive environment. Because, internalization of innovativeness and facilitating creativeness in an organization provide important competitive advantage for businesses (Çalışkan, 2013).

1. INTELLECTUAL CAPITAL

In a world that is dominated by globalization, the power of knowledge and conditions of competition have changed. Knowledge is one of the most important elements in maintaining the existence of businesses and keeping competition fresh. While traditional businesses make more profit by way of more production, today's modern businesses have more information to respond correctly to customer demand (Yıldız, 2020). Today, value of businesses is not only measured by their tangible assets as in the past, but also evaluated by intangible assets. Although intangible assets are more difficult to measure than tangible assets, they constitute a large part of the market value of businesses. When the intangible assets of business are mentioned, intellectual capital comes to mind (Çıkrıkçı and Daştan, 2002).

The word of intellectual as a concept, comes from Latin origin. It means cultured and knowledgeable. The capital concept has different definitions. The capital concept expresses a sum and accumulation. Therefore, intellectual capital concept can be called as the knowledge accumulation. When the literature is examined, it is seen that the intellectual capital was first conceptualized by J.K. Galbraith in 1969 (Akdağ, 2012). J.K. Galbraith stated that this concept is not only an element arising from human intelligence. It is a sum of many intellectual activities (Pena, 2002). The importance of intellectual capital increased in the 1990s, and for businesses it became easier to gain competitive advantage and make various innovations by following technology closely. In this period, the concept of knowledge gained great importance and it is understood that the value of a business does not only consist of financial and physical capital. In this period, it was also determined that the elements of intellectual capital have decisive effects on business success and the importance of intellectual capital for businesses was revealed (Öztürk and Demirgüneş, 2008).

Stewart (1991) defined intellectual capital as everything employees know that gives a business competitive advantage in the market. Later, Stewart (1997) defined intellectual capital as the intellectual material that is a combination of knowledge, information, intellectual property and experience, can be used to create wealth. Intellectual capital is not a tangible thing, but can be expressed as an effect and a result (Nahapiet and Ghoshal, 1998). Intellectual capital is the all human elements that consist of individual knowledge, abilities, experience and behavior of members of an organization (Bontis and Choo, 2001). Intellectual capital is defined as knowledge that businesses have or want to have, can be turned into profit and value (Koç, 2009). Intellectual capital is defined as the knowledge known by the employees of a business and benefiting mental, creativity and innovativeness processes of the organization (Atan and Tunçer, 2019). Developing and increasing the intellectual capital of a business largely depends on the quality, knowledge and skill level of the personnel working in the business. It is clear that businesses placing the correct people in the right jobs and at the right time will have an advantageous position in the competition. For this reason, most important point for a business is to know the value of its human resource and provide the necessary environmental conditions in the business to benefit from this resource strategically (Görmüş, 2009).

In tourism, it is the person who offers and uses the product. In other words, people serve people in the tourism sector. Today, the increase in the imitation of products reveals the importance of intellectual capital. Businesses must rely on intangible resources when determining their strategies. Because, intangible resources can be developed only in the long term, cannot be easily imitated and difficult to obtain, instead of tangible resources that can be easily imitated and procured by competitors (Naktiyok and Karabey, 2007). Today, in the tourism sector, businesses tend to create more individualized, higher quality and different products for consumers, instead of standard product and price competition (Çalhan, 2015). In this context, the element that will undoubtedly carry a tourism business to the future will be the intellectual capital that is sum of the values created by its personnel, strategies, structure, systems and processes of the business, and relations with its customers and society. In order to get more share from the market, it is important for a business to have an organizational culture, knowledge and experience. Because, the most important difference distinguishing hotel businesses from other businesses is that hotels provide continuous service. Although hotels are constantly intertwined with technology, they also have to pay attention to systematic team work and create an appropriate organizational structure during their activities. For this reason, hotel businesses aim to meet customer requests and needs with high-quality goods and services.

In today's information age, if investors and a manager can discuss the annual reports or results of a hotel that are indicators of business success or failure, then take corrective actions, will add value to the intellectual capital of the business.

Tourism businesses have realized an important resource that is intellectual capital, beyond their tangible and financial capitals. This resource is seen as an important weapon that enables the organization to grow, renew and gain competitive advantage (Koç, 2009). The dimensions of intellectual capital are important sources for a business to gain competitive advantage. Some dimensions of intellectual capital may affect the performance of organizations at different levels. Therefore, tourism businesses should comprehend intellectual capital and its all components widely (Khalique, Shaari, and Isa, 2011). Intellectual assets cannot create value by themselves and also cannot generate growth. Therefore, they must be combined with other production factors (OECD, 2008). There are different classifications on dimensions of intellectual capital in the literature. The most common and widely accepted classification is the three basic dimensions; human capital, structural capital and customer (relational) capital (Edvinsson and Malone, 1997; Stewart, 1997; OECD, 2008; Kandemir, 2008).

1.1. Human Capital

Qualified, experienced, knowledgeable, and loyal workers working in the business are the most important resource of competition for a business. Employees create a competitive advantage by enhancing and developing business as a whole. Human capital comprises knowledge, creativity, problem-solving ability, entrepreneurship and leadership skills of employees in a business. The first component of intellectual capital is human capital. Human capital can be defined as the employees' knowledge of a business (Acül, 2011; Akdağ, 2012). Human capital refers to the knowledge and experience of each individual in an organization (Önce, 1999). Human capital is the collection of knowledge, abilities and creativity features that employees use to fulfill their assigned tasks. This type of capital also encompasses the values, culture and philosophy of an organization. Human capital is the creative power that a person has as a result of natural talent, education and experience (Şamiloğlu, 2002).

The human capital of a company consists of people who have high added value, hardly be replaced, enable customers to prefer the business instead of a competitor, create products and services with their skills and experiences (Özdemir and Balkan, 2010). As employees become more excellent and professional at their jobs, they become more valuable to the business. Therefore, it is critical to understand the abilities, knowledge and expertise of individuals in order to know why an employee is valuable and what role he plays in the

organization (Şerbetçi, 2003). Human capital is the most compelling component of intellectual capital. Because, its measurement and calculation is seen as highly problematic (Lynn, 1998). Many components such as education level, vocational education level, work experience and age are used in the measurement of human capital. Manzari, Kazemi, Nazemi, and Pooya (2012) classified the dimensions of human capital into seven categories: attitude and motivation; competence, skill and capabilities; creativity and innovativeness; experience and expertise; individual personal characteristics; knowledge; and efficiency.

1.2. Structural Capital

Structural capital, another component of intellectual capital, can be defined as the infrastructure that regulates and supports human capital (Edvinsson and Malone, 1997). Structural capital consists of intellectual property such as copyrights, brands, patents and trademarks owned by an organization and other infrastructure such as organizational culture, communication technologies and process capacity. Knowledge is also evaluated within the structural capital (Erkuş, 2006: 65). Structural capital includes the process of organizing and doing a transaction and the innovative structures encountered in this process. Compared to human capital, structural capital can be defined as the knowledge that cannot leave a business at the end of working hours and remains within the business (Toraman, Abdioğlu, and İşgüden, 2009). Structural capital is an intellectual asset that is difficult to create for an organization compared with human and customer capital. On the other hand, structural capital's ownership is easy to control. Structural capital is the knowledge that belongs to an organization. Taking into account that structural capital is everlasting capital for a business, an organization's success will be transferring all its actual and potential intellectual resources to its structural capital (Görmüş, 2009).

Structural capital includes all physical structures and assets owned by a business or institution. Many inventory values such as fixtures, production facilities, movable and immovable properties owned by the organization can be counted within the scope of structural capital (Haykır, 2011). Structural capital is a capital consisting of information technologies, communication technologies, software systems, information systems, models, methods, corporate identity, image and processes that provide a business to continue its activities (Akdağ, 2012). Structural capital refers to all knowledge-based elements that are outside human capital and enable a business to survive (Sağır and Gönülölmez, 2019). Structural capital includes all mechanisms and structures to support productivity and performance of employees in order to increase the general performance of a company (Gomezeli Omerzel and Smolcic Jurdana, 2016). Structural capital in

the hotel sector is formed by tasks such as room operations and food and beverage operations (Zeglat and Zigan, 2014).

Chen Goh (2005) measured the banks' intellectual capital performance. In his study, she found that the human capital efficiency of all banks was greater than the structural capital efficiency. According to Bontis (1998), an organization with poor intellectual systems and activities, its intellectual capital will never be at maximum potential. Businesses with strong structural capital have a supportive organizational culture that allows their employees to try new things and learn every time, even if they fail while trying. Structural capital is the important bond that facilitates measuring the intellectual capital at the organizational level. De Pablos (2004) argue that competitive advantage in the long run can be achieved through measuring knowledge-based resources and implementing programs that allow these resources to be expanded, developed, preserved, stored and replenished. Additionally, strategically relevant resources should be identified and important resources for the future market should be selected.

1.3. Customer (Relational) Capital

Customer capital is the relationship that a business builds with its customers, who generate income for the business both today and in the future (Çalhan, Çakıcı, and Karamustafa, 2012). Customer capital covers the communication of a business, an institution, or an organization with customers or suppliers and reveals the loyalty of these people to the business. Customer capital consists of the business relationships of an organization with different stakeholders. These relations can be formalized like partnerships and distribution arrangements or cannot be formalized like relationships with customers, investors, competitors, or suppliers (Zeglat and Zigan, 2014). Customer capital is related to the communication of an organization with its buyers and the loyalty of these customers to that business. Customer capital consists of customer satisfaction, customer loyalty, image, brand and direct distribution channels. Customer capital can be expanded to relationship capital by adding business partners, tourism promotion businesses, suppliers, competitors, local residents, government, special interest groups, local and national media (Rudez and Mihalic, 2007).

The basis of customer capital is to transfer a business' knowledge, experience and innovations to its customers through sales and marketing channels. Customer capital includes customer loyalty, company reputation, relationships with distributors and wholesalers who are the external environment of a business. Customer capital is related to all external parties that can create value for the business (Erkal, 2005). Customer capital is closely related to the people and organizations in the external environment of a business. In this context, customer

capital has to cope with active and strong parameters that cannot be directly controlled and directed compared to structural and human capital. Therefore, the creation and control of customer capital is more difficult than human and structural capital. The components of customer capital that create added value can be listed as brands, customers, customer loyalty, business name, distribution channels, business collaborations, license agreements, contracts of desired quality, franchising agreements (Görmüş, 2009). Hotels should build important relationships with their employees, suppliers and customers in order to be successful and maximize their profitability. Achieving this depends on the successful use of a business' intellectual assets and other elements.

2. ORGANIZATIONAL INNOVATIVENESS

Innovativeness has been seen as the key to the survival and growth for every organization for many years because of the increase in globalization, the speed and intensity of technological changes and tough competition conditions (Menguc and Auh, 2006). While global markets are being reshaped by deep social, economic and technological changes, innovation, which facilitates the adaptation process of organizations to this change experienced in every field, is seen as the key to success in terms of sustainable growth, industrial competitiveness and high performance (Gemici and Zehir, 2019). Innovativeness includes important processes for organizations to gain new capacities, improve performance, increase their dynamism and eliminate stagnation (Naktiyok, 2007). Innovative businesses are the businesses very close to their customers. While other businesses are talking about the subject, innovative businesses are implementing it. The most notable feature of innovative businesses is their unwavering passion. This passion emerges as quality, reliability, or an extreme commitment to service. Innovative businesses accept quality as a responsibility rather than as an obligation. Therefore, innovative businesses focus on their superior fields compared with their competitors (Durna, 2002).

According to Rogers (1962), innovation is a useful product that has a new procedure, design, system and object of creativity. Not all creative products and services are innovations. Lapiere (1965) brought a different perspective to the definition of innovation. According to him, innovation is invention and discovery, and it is created randomly in society by extraordinary people. Van de Ven (1986) explains the concept of innovation as a new idea, a scheme that changes the existing order, or an approach that is perceived as new by individuals (Van de Ven, 1986). Damanpour and Gopalakrishnan (1998) state that organizations can have innovations by two different ways; developing or adopting. They state that innovations can often be developed by organizations for

their own use or to sell to other organizations, resulting in outputs such as a new product, program, or technology. They state that when the second organization provides these outputs, another process begins, and this second process can be called as the adoption of innovation. For this reason, while innovation is a process and product for developer businesses, it is accepted as the adoption of innovation for the purchaser organizations (Çalhan, 2018).

The most common and accepted definition of innovation is made in the Oslo Manual by the Organization for Economic Cooperation and Development (OECD) as a new or greatly improved product, service or process, a marketing method or organizational method, in business practices, external relationships, or work organization (OECD, 2005). Another definition is made by Baregheh, Rowley and Sambrook (2009) in their extensive study. They have defined innovation as a multi-step process that businesses transform their ideas into new/advanced products, services or business processes to improve themselves, compete with other companies and differentiate themselves from others. Innovation is defined as the degree of adaptability of the intellectual product formed at the end of the creativity process. In other words, innovation is a different application that can be observed directly. A clearer definition of innovation in terms of organizational behavior is putting creativity into practice (Yahyagil, 2001). Organizational innovativeness starts with a new idea developed within the organization or obtained from outside the organization. With this new idea, the organization produces and commercializes the new product through reaching new sources of supply, using new production methods, producing new products, entering new markets. From this point of view, innovation covers all organizational areas, from supply to production, from production to sales and after-sales services for a business (Özdevecioğlu and Biçkes, 2012). In terms of organizational behavior, organizational innovativeness can be explained as giving importance to each employee's creativity and supporting organizational creativity by providing a suitable work environment and opportunity for teamwork. Organizational innovativeness can be defined as the process of a business' transformation into an organization that emphasizes entrepreneurship and innovativeness (Yahyagil, 2001).

Organizational innovativeness is a broad concept that indicates a business' tendency to innovate. Organizational innovativeness is defined as a holistic capability that includes the introduction of new products or services to a market or opening up to new markets by using innovative behaviors and processes in line with the strategic priorities of an organization (Gemici and Zehir, 2019). Organizational innovation is the production of new products and services, the demonstration and promotion of new inventions in product development systems,

and the development of new methods in working conditions within the organization. In these processes, it is extremely important that employees should have the opportunity to contribute to the development of new products and production systems by using their own skills (Çalışkan, 2013). Wang and Ahmed (2004) examined different studies on organizational innovation and identified five main areas that determine the overall innovativeness of a business. These main areas are listed as: product innovativeness, market innovativeness, process innovativeness, behavioral innovativeness, and strategic innovativeness.

2.1. Product Innovativeness

The shortening of product life, changing consumer needs and demands, and advancement of technology increase the importance of product innovation (Erdil, İmamoğlu and Keskin, 2003). Product innovation, which involves introducing new products to the market or changing or improving existing products, is considered one of the most important types of innovation. Service innovation, the importance of which has increased with the development of the service sector all over the world, is considered as new developments in the activities carried out to make the products more attractive to the customer through distribution. A product innovation is the introduction of a new or significantly improved product with respect to its existing properties or its usage, which includes significant improvements in specifications, components and materials, integrated software, user friendliness, and other functional properties. Product innovations include both the introduction of new products and significant improvements in the functional or user features of actual products (OECD, 2005: 48; Çalhan, 2018).

Product innovation refers to the improvements made in the product mix of an organization, the new product options and their development. Product innovations generally help organizations improve their competitive position and maintain their existence in the market. Organizations that achieve success in developing product innovation, gain a significant advantage in the competition, increase market share and improve profitability (Özdemir and Sönmez, 2018). Product innovation is a firm's capability to successfully and efficiently adopt new ideas, products and processes. Product innovation is the ability to acquire current and related information related to products and processes that can facilitate businesses successfully create their innovation capacity. Product innovation performance is an important indicator of product innovation success, as newly developed products and services show the extent to the company has achieved its profitability, sales volume and revenue targets. Product innovation is the primary way for companies to adapt to turbulent environments and gain sustainable competitive advantage. In order to truly reap the benefits of innovation,

businesses should understand that innovation is a process, a result, and a business culture issue (Yıldız and Sayın, 2019). The first microprocessors, digital cameras, ABS braking systems in cars, GPS (Global Positioning System), the use of breathable fabrics in clothing, constantly renewed mobile phones are some examples of product innovation. The important factor in product innovation is the customer demand (Güzelsoy, 2010). Developing a completely new main course, salad, dessert, sauce or making significant changes and additions to existing menu items and recipes in hotels can be given as examples of product innovations (Çalhan, 2018).

2.2. Market Innovativeness

The method to achieve sustainable competitive advantage is the innovation processes. Marketing innovation comprises providing a new and different aspect to the marketing approach by making significant changes in product quality or quantity, product positioning, promotional activities and pricing strategies in order to increase the acceptability and prevalence of products (Tüfekci and Tüfekci, 2014). Marketing innovation is the development of new marketing methods comprising quite changes in product design, packaging, product positioning, product promotion and pricing. Every newness in marketing approaches and practices can be considered as marketing innovation. For example, implementing a new communication method in customer relations and development of a new payment method can be expressed as a marketing innovation (Uzkurt and Şen, 2012).

Marketing innovation, one of the innovation strategies of a business, create a new value for both its stakeholders and customers by combining the knowledge and skills that exist within the business and the knowledge and skills of other businesses. Marketing innovation respond to customer requests and needs more successfully, open new markets, or position a product in a different way in the market in order to increase the business' sales (Eskiler, Özmen, and Uzkurt, 2011). Food and beverage innovations in product design involve making significant changes in the taste, appearance, or shape of food and beverage products to target a new customer segment. New marketing innovations in product positioning include the introduction of new sales channels. New marketing methods in product promotion include the use of new concepts related to the promotion of menus offered by a food and beverage business. In pricing, a business' product innovations require the usage of new pricing strategies (Çalhan, 2018).

2.3. Process Innovativeness

Process innovations are difficult to perceive directly by customers. Additionally, process innovations improve product and service quality, reduce production costs, lower prices so customers can perceive the effects of process innovations. If a process innovation provides a significant advantage to a business compared to the previous ones, it may increase the market share of the company and contribute to the growth of the company (Işık, 2020). The concept of process covers the activities of converting labor, capital, raw materials, energy and other factors into an output within the framework of the production of goods and services. The process innovation refers to the application of a new set of ways and methods to increase the efficiency and effectiveness of production processes (Özdemir and Sönmez, 2018).

Wang and Ahmed (2004) have defined process innovation as improving production and management processes by utilizing new production methods, new managerial approaches and new technologies. In the Oslo Manual, process innovation is defined as the realization of a significantly improved or new method of production, delivery or distribution. This innovation includes significant changes in equipment, software or techniques (OECD, 2005). Çalık (2021) have defined process innovation as a new or significantly improved process that has been successfully implemented within a business, produce positive environmental and social benefits as well as providing economic benefits. New food and beverage production technologies for faster and better preparation, energy and labor-saving machineries and equipment, reuse and recycling programs, and improved sanitation practices in a hotel can be given as examples of process innovation. Moreover, another example, an Indian food and beverage business called “Rocketchefs” has developed a new process innovation that cooks pizza in a trailer during the delivery process and serves it hot to customers’ door when they ordered (Çalhan, 2018).

2.4. Behavioral Innovativeness

Behavioral innovativeness refers to an organization's holistic behavioral tendency toward new ideas and innovations. The frequency of suggestions and recommendations offered by employees to initiate some innovations in an organization, attitudes of the managers regarding these suggestions and recommendations, perceptions and perspectives of top management in adopting and implementing innovations are extremely important. In addition, managerial response and method followed by top management against an innovation adopted by competitors are also an important issue (Özeren, 2011). Behavioral innovativeness involves the adoption of innovativeness consciously by

employees and projecting innovativeness into all organizational activities for which they are responsible. In this context, behavioral innovativeness is an important parameter for increasing organizational performance (Alay and Can, 2019).

Scott and Bruce (1994) explained innovative behavior as a complex process. Innovative behavior begins with problem identification and continues with the generation of new or the previously accepted ideas and solutions. In the next stage, an innovative individual seeks a support for his idea. In the final stage, the individual transforms his innovative idea into a visible, tangible and producible model or prototype. Therefore, innovative behavior is a process that includes different individual behaviors at every stage. For this reason, at each stage, different activities and different individual behaviors needed, and this process is expressed as a multistage process. An individual who have innovative behavior, evaluates and questions the current situation from different aspects, makes observations in order to make the most accurate inferences about the situation, and seeks support by sharing findings with other organization members. In addition, these individuals enable their organization to experience innovativeness by putting new ideas into practice (Çimen and Yücel, 2017). Innovative behavior should be perceived as a strategic activity that increases competition for organizations. Innovative behavior necessitates directing employees, implementing working methods, suggesting new alternatives in achieving goals, researching new resources, applying creative and new ideas and transforming ideas into behavior (Örücü and Çınar, 2019).

2.5. Strategic Innovativeness

The strategic innovation refers to the reshaping an entire business in the current business environment according to its operational purposes. A business that has adopted a strategic innovation, manage its organizational goals and identify the incompatibility of its goals and current company resources. In addition, the business realizes creative solutions applied such as stretching and shrinking operations, while using these resources (Wang and Ahmed, 2004). The strategic innovation is considered within the scope of innovation management as it is among the reasons for success. The strategic innovation is whole of the activities in the planning, implementation, result critique, auto-control and decision processes in the innovation production process (Bülbül, 2012). Strategic innovativeness covers the decisions of which systems will be applied in the development of the business, how and which technology will be used in planning, or how ideas and resources that create competition can be used (Yeşil and Özbağış, 2022). The strategic innovation can be expressed as newness in which

new and unconventional forms of organizational resources are created, resulting in a revolutionary change in the market in order to develop a sustainable competitive advantage (Altuntaş, 2014).

3. THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL AND ORGANIZATIONAL INNOVATIVENESS IN TOURISM

The relationship between intellectual capital and organizational innovativeness in the tourism sector has been widely studied in the literature by different researchers at different times, in different geographies and different samples. In the following pages, a review on the relationship between intellectual capital and organizational innovativeness in tourism is given.

Chen, Lin and Chang (2006) conducted a study in order to explore the effect of intellectual capital on businesses' new product development performance. Their research results indicated that human capital, structural capital, and relational capital that are the components of intellectual capital, have positive effect on business' new product development performance. Another study was carried out by González-Loureiro and Figueroa Dorrego (2012). They aimed to assess intellectual capital management's effects on the growth of innovative SMEs. They concluded that there is an positive relation between the organizational innovativeness and intellectual capital. Sanchez-Gutierrez, Gonzalez-Uribe, Gutierrez-Govea, and Garcia-Jimenez (2012) made a study focusing on the relationship between technological innovation and intellectual capital in restaurant industry in Mexico. Their study results have showed that businesses that have intellectual capital are developing innovative ideas and implement them in order to gain competitive advantage. Carmona-Lavado, Cuevas-Rodríguez and Cabello-Medina (2013) analyzed the effect of intellectual capital's three components (human, social and organizational) on service innovativeness in Spain. Their study results revealed that there is a positive effect of human capital on service innovativeness and positive effect of social capital on service innovativeness.

Tsou, Chen and Liao (2016) conducted a study in order to analyze the effect of intellectual capital on e-service innovation. The relationship between intellectual capital and e-service innovation is also explored. For this reason, they conducted a survey on information technology and marketing managers of hotels in Taiwan. They have determined that there is a direct positive effect of intellectual capital on e-service innovation in hotel businesses. They concluded that hotel managers should enhance intellectual capital (human capital, organizational capital, and social capital) in developing e-service innovations. Gomezelj-Omerzel and Smolcic-Jurdana (2016) attempted to study the effect of

intellectual capital and its components on innovativeness. The authors aimed to explain innovation performance and business growth by showing the importance of the intellectual capital dimension on each type of innovation (product, process, marketing and organizational). They conducted a survey on Slovenian and Croatian SMEs in the tourism area. Their study results indicated that there is a positive relationship between all intellectual capital components (human capital, social capital and organizational capital) and innovation. In addition, their results revealed that intellectual capital is positively related to organizational innovativeness and growth of tourism businesses. Liu (2017) carried out a study in order to reveal whether hotel managers are open-minded about competitive advantage by way of innovation and human capital accumulation. For this reason, the author collected data from managers of star-level hotels in Fujian province, China. As his study result, he revealed that social capital and organization capital increase innovation behavior's effects. Moreover, the author added that if high levels of social and organization capital exist, then, human capital increase innovation behavior.

Allameh (2018) performed a study to test an integrated model focusing on intellectual capital and organizational innovativeness in the context of the hotel industry in Iran. He revealed that human capital, structural capital and relational capital are positively related to hotels' organizational innovativeness. He concluded that business' social capital affects its knowledge sharing. He added that social capital improves intellectual capital and innovation through knowledge sharing in hotel industry. Chou, Huang and Lin (2018) examined various components of business intellectual capital on innovative behavior of frontline service employees. They collected data from service employees working at a travel agency in Taipei, Taiwan. They have revealed that human capital and customer capital positively and directly affect innovative behavior of frontline service employees. Moreover, they concluded that human and customer capital had a moderating effect on innovative behaviors of frontline service employees. Cheng, Xiang, Sher and Liu (2018) conducted a study in order to explore how hotels use intellectual capital to promote service innovation. For this reason, they carried out a field study focusing on hotels in Taiwan. They concluded that there is a strong relationship between intellectual capital and innovation in hotels. Hotels effectively formulate intellectual capital to promote service innovation. Omoush (2019) made a field study aiming to investigate the role of intellectual capital components (human, structural, relational or customer capital) on innovation. He conducted a survey on staff of tourist agencies in Irbid, Jordan. His study results showed that human and structural capital has a positive effect on innovation in the tourist agencies in Irbid. Töre (2019) examined impact of

intellectual capital on innovative work behavior. She conducted a survey on staff working in 5-star hotels in Antalya, Türkiye. Her research results showed that intellectual capital has a direct positive effect on innovative work behavior.

Wu (2020) conducted a study in order to empirically test the relation between intellectual capital and innovation performance of a tourism business. She collected data from Chinese tourism firms. Her study results indicated that there is a direct link between intellectual capital and innovation performance within tourism firms. Her study results showed that human capital has a direct effect on tourism innovation performance. Shouk and Tamamm (2021) performed a study in order to evaluate the effect of intellectual capital on the innovation performance of Egyptian travel agencies. They conducted a survey to collect data from travel agencies in Egypt. Their study results indicated that human capital and organizational capital have a positive effect on innovation performance of Egyptian travel agencies. Stefko, Gallo, Gallo Jr., Svetozarovova and Burdova (2021) made a study in order to examine impact of intellectual capital on innovation activity of tourism companies. The authors concluded study that intellectual capital have a strong effect on firms' innovation activities. Dang and Wang (2022) conducted a study investigating the effect of green innovation strategic orientation on green intellectual capital in Vietnam. They collected data from the hospitality businesses. They determined that green innovation strategic orientation has a direct effect on green intellectual capital and its components; green human capital, green structural capital, and green relational capital.

4. CONCLUSION

Tourism businesses have realized an important resource which is intellectual capital, beyond their tangible and financial capitals. Intellectual capital is seen as an important weapon for tourism businesses to grow, renew and gain competitive advantage. Intellectual capital is defined as the knowledge known by the employees of a business and benefiting mental, creativity and innovativeness processes of the organization. Intellectual capital is classified as human capital, structural capital and customer (relational) capital. Organizational innovativeness is defined as giving importance to each employee's creativity and supporting organizational creativity by providing a suitable work environment and opportunity for teamwork. Organizational innovativeness is classified as product innovativeness, market innovativeness, process innovativeness, behavioral innovativeness, and strategic innovativeness. A literature review on the relationship between intellectual capital and organizational innovativeness in the tourism sector has been made and chronologically given in the study.

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Chapter 14

Two New Stelae And A Temenos Of Antiochus I Of Commagene

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Introduction

Antiochus I, who stood out among the Commagene kings with his religious identity, had *hierotheresia* and *temene* founded in different parts of the kingdom in accordance with the religious program he established¹. Chief among these are the three *hierotheresia* in Nemrud Dağı and both Arsameias.² Apart from the *hierotheresia*, reliefs and inscriptions belonging to stelae or stele fragments have been found in Samosata,³ Sofraz,⁴ Ancoz,⁵ Selik,⁶ Çaputlu Ağaç Küllük,⁷ Kılafık Höyük,⁸ Palaş/Gümüşkaya,⁹ Adıyaman,¹⁰ Direk Kale,¹¹ Doliche¹² and Zeugma,¹³ revealing the existence of the *temene* of Antiochus I. Two new stelae and a *temenos* to which they belong, which are the subject of this study, have been added to these *temene*.

The new stelae and the *temenos* have been discovered near Onevler Köyü, Gerger district, Adıyaman Province. Onevler Köyü (formerly Helül Köyü) is one of the farthest points at the north-east of Adıyaman provincial border and is situated approximately 21 km from the center of Gerger district. The *temenos* is about 2 km north of Onevler Köyü, on a plateau near the summit of the 2100 m high Kımıl Dağı (**fig. 1**). The plateau is approximately 90 m long and 40 m wide. This area has been severely damaged by illegal diggers such that the bases of the

¹ While a *hierotheresion* is a large tomb sanctuary, a *temenos* is a small sanctuary. See Wagner – Petzl 1976, 203; Crowther - Facella 2003, 51, 67; Brijder 2014, 132.

² Antiochus I had a *hierotheresion* founded each for himself on the summit of Nemrud Dağı, for his father Mithridates I Callinicus at Arsameia-on-the-Nymphaeis and for his grandfather Samos II at Arsameia-on-the-Euphrates at Gerger. For Nemrud Dağı, see Humann – Puchstein 1890, 232-353, Tafel XIX-XL; Brijder 2014, 298-400; Waldmann 1973, 59-79, Fig. 6-8; for Arsameia-on-the-Euphrates, see Humann – Puchstein 1890, 353-368; Waldmann 1973, 123-141; for Arsameia-on-the-Nymphaeis, see Dörner 1969/70, 256-264; Waldmann 1973, 80-122; Blömer – Winter 2011, 76-87; Brijder 2014, 238-271. Apart from these three *hierotheresia*, some researchers also consider the Karakuş and Sesökn Tumuli as *hierotheresia*. See Waldmann 1973, 56-57; Dörner, 1999, 42; Wagner 2018, 52. Other researchers state that the tumulus was not a *hierotheresion* because it was built by Antiochus I's son Mithridates II, who ascended the throne after him, and because it lacks the *dexiosis* stelae of Antiochus I in the other *hierotheresia*. See Hoepfner 2018, 153; Brijder 2014, 132.

³ For Samosata stelae Sx, Sy and Sa, see Yorke 1898, 313-314 (Sx); Waldman 1973, 16–27, pls. V– VI (Sx), 27-32, Crowther - Facella 2003, 68-7, Tafel 8. 1-3 (Sx); Crowther - Facella 2011, 355-356, Tafel 52 (Sa); Crowther - Facella 2011, 356-359, Tafel 53.1 (Sy); Brijder 2014, 132-134-136-138, Fig. 84a-c (Sx), 86a-c (Sy), 86d-e (Sa).

⁴ For Sofraz, see Wagner – Petzl 1976, 201-223, Tafel VIII a; Wagner 2012, 50-51, Abb.36; Crowther - Facella 2003, 71-74, Tafel 9. 1-2; Facella 2006, 211, Crowther - Facella 2018, 86; Brijder 2014, 141-144, Fig. 89.

⁵ For Ancoz, see Waldman 1973, 43-44.

⁶ For Selik, see Humann – Puchstein 1890; 368-372; Waldman 1973, 33-42, Tafel IX 1-2; Brijder 2014, 135-136, Fig. 85a-b.

⁷ For Çaputlu Ağaç Küllük, see Dörner 1969/70, 287-288, Tafel 54.2; Waldman 1973, 45-47; Crowther - Facella 2003, 76-77, Tafel 6.1.

⁸ For Kılafık Höyük, see Dörner – Naumann 1939, 43-47, Tafel 5. 3-4; Waldman 1973, 48-49.

⁹ For Palaş/Gümüşkaya, see Brijder 2014, 139, Fig. 87a; Crowther - Facella 2003, Tafel 10.

¹⁰ For the Adıyaman stele, see Crowther - Facella 2003, 74-76.

¹¹ For Direk Kale, see Hoepfner 1966, 157-177; Brijder 2014, 421-423.

¹² For Doliche, see Wagner 1982, 161-162, Abb. 25; see Crowther – Facella 2003, 71; Brijder 2014, 157.

¹³ For the Zeugma stelae, see Crowther - Facella 2003, 44-65, Tafel 3.1 (BEc), Tafel 5.1 (BEd); Petzl 2003, 81-84; Brijder 2014, 132, 151-157 Fig. 94 (BEa-b), 95 (BEa/c), 96 a-c, 97 BEd ; Crowther – Facella 2018, 87-88, Res. 55.

stelae made of single blocks were broken and vandalized (**fig. 2**). The stelae had tumbled down the steep slope to the south of the plateau and slid down approximately 40-50 m. As a result, one of the stelae (stele no.1) was broken into two pieces. The other stele (stele no. 2) is intact except for minor damages (**fig. 3**). Stele no. 2 has inscriptions on the edges and rear. However, it is quite worn. Since the stele could not be lifted, currently the contents of its front face are not known. For this reason, in this study only stele no. 1 was examined.

Stele No. 1

Stele no. 1 is made of limestone. Although it is in two pieces, it has approximately the same dimensions as stele no. 2. Its height is approximately 160 cm. The width is 120 cm at the bottom, the thickness is 39 cm. In the middle of the lower section, there is a 40 cm wide and 20 cm long tenon. According to the measurements, the stele should be about 160 cm high except for the tenon in the lower section, 120 cm wide and 39 cm thick.

The rear and edges of stele no. 1 are inscribed and it is very worn like stele no. 2. The lower part of the two-piece stele contains the lower legs and feet of two figures (**fig. 4**). On the second piece, which forms the upper part of the stele, there are reliefs of two figures, one sitting and the other standing (**fig. 5**). Based on the known dexiosis stelae of Antiochus I, it is concluded that the relief depicts Antiochus I of Commagene and the god Apollo. Antiochus I is depicted as standing and in eastern costume, as in other dexiosis stelae.¹⁴ The head is in profile, the torso in three-quarter pose, the right foot is in frontal view and the left foot is in profile. There is a five-pointed Armenian tiara on the head of Antiochus I (**fig. 6**). He wears a long-sleeved robe that falls to his feet, tight-fitting trousers, a cuirass with reticulated pattern on his body, and a cloak covering his shoulders (**fig. 7**). The robe is pulled up at the middle by a cord fastened to the sash, and as a result, it hangs down to the knee level at the sides. Similarly, the cuirass is attached in the middle to the sash at the waist and hangs down on both sides. In addition, the ceremonial dagger attached to the sash is seen over his right thigh. The right hand of Antiochus I is extended forward and he is shaking Apollo's right hand. In his left hand, he is holding the royal scepter. While the tip of the scepter is visible behind the right shoulder, its lower part is not carved (**fig. 8**). The reason for this is that the figures are depicted so close that they are touching each other, and consequently, there is no space left to illustrate the lower part of

¹⁴ The clothing is similar on the Antiochus I and Apollo-Mithras-Helios-Hermes stele depicted on the sandstone block on Nemrud Dağı, but the details are linear. See Humann-Puchstein 1890, 320-321, Taf. XXXVIII. No. 2; Wagner 1983, Taf. 47. no. 1; Allgöwer 1993, Fig. 23. No.4; Crowther-Facella 2003, Taf.7. no.1; Rose 2013, 244, Fig. 7; Çevik 2014, 188, no.4; Brijder 2014, Fig. 50a-b.

the scepter. In the scene, Apollo's knees are rendered so close that it touches Antiochus' clothes.

Opposite Antiochus is Apollo sitting on a throne (**fig. 9**). Although the legs of the throne are not very distinct, they are roughly carved as lion's feet. Apollo is depicted nude except for a cloak covering his shoulders and back. The god's face and hair are very poorly preserved because of the damage caused by breakage and wear. For this reason, it was not possible to identify the details. Despite the damage at the face, 21 rays of the solar crown, which probably contains 22 rays, are visible. The rays reach the borders of the throne on which Apollo is sitting. Apollo is shown on the throne with his left foot in front, his right foot behind with his heel in the air, stepping on his toes. Apollo's right arm is extended forward and he is shaking the right hand of Antiochus I. His left arm is bent at the elbow and lies parallel to his left leg.

It was observed that Gerger stele no. 1 bears similarities with Sofraz, Zeugma (BEc) and Samosata Sx dexiosis stelae of Antiochus I, discovered in different parts of the kingdom. The front face of the Sofraz stele depicts Antiochus I shaking hands with the god Apollo.¹⁵ Here, the god is depicted nude except for a cloak covering his shoulders and back, in three-quarter pose and with a sun disc on his head in the Greek way.¹⁶ The inscription states that the *temenos* is dedicated to "*Apollo Epekoos who listens to prayers and Artemis Diktyna*."¹⁷ Here, the god Apollo is mentioned together with his sister Artemis and is not identified with the Persian god Mithras.¹⁸ In other words, Antiochus I's syncretic understanding of religion has not yet been realized. Moreover, in the first sentence of the inscription, the king describes himself as "*I, King Antiochus.... founder and benefactor and the first to assume the kidaris ...*"¹⁹ In this description, the king does not refer to himself as "*Great King*" as in the Great Cult Inscriptions of Nemrud Dağı and Arsameias, but only as "*King*" and the first person to wear the "*kidaris*" that symbolizes the power of Armenian kings. From this description, the researchers concluded that the Sofraz stele was erected before the rulers congress at Amisus in 65/64 BCE and therefore represents the early phase of the reign of Antiochus I.²⁰ This phase has also been defined as "pre-syncretistic".²¹ However, it was also stated that updates were made to the stele in

¹⁵ Wagner – Petzl 1976, 205-207; Facella 2006, 211; Rose 2013, 222-233, Fig. 5; Doğan – Tosun 2021, 400.

¹⁶ Jacobs 1998, 43; Crowther - Facella 2003, 62; Brijder 2014, 142; Wagner 2018, 58.

¹⁷ Wagner – Petzl 1976, 215; Jacobs 1998, 42; Crowther - Facella 2018, 86; Petzl 2018, 74; Brijder 2014, 143.

¹⁸ Wagner – Petzl 1976, 209.

¹⁹ Wagner – Petzl 1976, 206-207.

²⁰ Wagner – Petzl 1976, 207, 209, 210; Wagner 1983, 200, 205; Allgöwer 1993, 259; Jacobs 1998, 42; Mittag 2004, 7, 11-12; Wagner 2018, 58, 61; Facella 2006, 280-281; Petzl 2018, 73-74; Brijder 2014, 143; Doğan – Tosun 2021, 401.

²¹ Wagner 1983, 198; Facella 2006, 280; Brijder 2014, 143-144.

later periods.²² Accordingly, in the first stage, the stele was only inscribed. In the second stage, the day of his coronation was added to the birthday celebrations in the inscription.²³ It was observed that the addition at this stage was made with smaller lettering. In the third stage, reliefs of Antiochus and Apollo were carved on the stele.²⁴

In the stele discovered in Zeugma (BEc), which also depicts the handshake scene of Antiochus I and Apollo, the god Apollo is shown nude in the Greek way except for a cloak that covers his back and shoulders, as in the examples from Sofraz and Samosata Sx.²⁵ However, unlike the Sofraz example, the god Apollo is identified with the Persian god Mithras and is referred to as Apollo-Mithras-Helios-Hermes in the text.²⁶ In addition, the number of rays in the solar crown on his head is different: 19 in Zeugma (BEc), 14 in Sofraz, and 20 in Samosata.²⁷

Zeugma was granted by Pompeus to the kingdom of Commagene, namely Antiochus I, after the rulers congress held at Amisus in 65/64 BCE. The *temenos* must have been founded immediately afterwards. Because it was determined that the Zeugma (BEc) stele was also updated, like the Sofraz stele.²⁸ Petzl states that the Zeugma *temenos* was founded during the youth of Antiochus I, but the inscription was later modified and that this was done in the last period of Antiochus I's reign.²⁹ Like Petzl, B. Rose states that the Zeugma *temenos* may have been dedicated to Apollo Epekoos and Artemis Diktyna, and that the *temene* dedicated to Apollo Epekoos and Artemis Diktyna at the beginning of his reign may have been transformed into a new syncretic group with Zeus Oromasdes, Apollo-Mithras-Helios-Hermes and Artagnes-Herakles-Ares towards the end.³⁰ He also expresses that it is similar to the inscriptions on Sofraz, Adıyaman, Çaputlu Ağaç Küllük stelae, which are also dedicated to Apollo Epekoos and Artemis Diktyna and belong to the beginning of the reign of Antiochus I.³¹ Facella also states that the Zeugma BEc inscription contains traces of the previous *nomos* inscription BEe between the lines and that it is parallel to the contents of the inscriptions in Sofraz, Adıyaman and Çaputlu Ağaç Küllük.³²

²² Wagner – Petzl 1976, 207; Blömer-Winter 211, 168-169; Brijder 2014, 143; Petzl 2018, 79, 81.

²³ Wagner – Petzl 1976, 207; Allgöwer 1993, 261; Facella 2006, 211.

²⁴ Crowther – Facella 2003, 63; Facella 2006, 287-288; Petzl 2018, 81, Res. 50.

²⁵ Crowther – Facella 2003, 44; Rose 2013, 220-222 Fig. 2-3.

²⁶ Crowther – Facella 2003, 61; Crowther – Facella 2018, 88, Res. 55.

²⁷ For the number of rays in the solar crown in Sofraz, Zeugma BEc and Samsat Sx stelae, see Crowther – Facella 2003, 45; Brijder 2014, 132 (Samsat Sx), 142 (Sofraz), 152 (Zeugma BEc); Doğan – Tosun 2021, 406.

²⁸ Petzl 2018, 79.

²⁹ Petzl 2018, 79.

³⁰ Crowther – Facella 2003, 62; Rose 2013, 224-225.

³¹ Rose 2013, 224.

³² Crowther – Facella 2003, 62; Facella 2006, 289; Crowther – Facella 2018, 89.

Another example that bears similarity to the Gerger example is a basalt stele fragment discovered in Samosata. On the stele fragment found on the banks of the Euphrates, there is a depiction of Apollo with waist, body and head preserved.³³ In this stele fragment labeled Samosata Sx, Apollo's left arm extends parallel to his body, while his right arm reaches forward; he is probably shaking the hand of Antiochus I opposite him. In the Samosata Sx stele, Apollo is depicted nude except for a cloak covering his back and shoulders, as in the Sofraz, Zeugma and Gerger examples. There is also a laurel wreath and a sun disc overlaid with 20 rays on the head of Apollo. The stele has inscriptions on the edges and rear. Both the depiction and the contents of the inscription are the same as the Zeugma BEc stele.³⁴ Apollo is identified with the Persian god Mithras and referred to as Apollo-Mithras-Helios-Hermes as in the Zeugma BEc inscription.³⁵

Antiochus I and Apollo are also depicted in the dexiosis stelae in Arsameia-on-the-Nymphaios and Nemrud Dağı *hierothesia*. However, unlike the Sofraz, Zeugma (BEc), Samsat Sx and Gerger examples, Apollo is dressed. In these stelae, the god wears a long mantle that falls to his feet, striped and loose trousers with deep grooves, and Persian shoes.³⁶ On his head there is a *tiara* with the tip slightly curved forward, surrounded by a sun disc and rays. Antiochus I is depicted wearing the same clothes as in the other stelae. In the inscriptions on the rear of the stelae, the god is referred to as Mithras-Helios-Apollo-Hermes in the two stelae in Arsameia-on-the-Nymphaios and as Apollo-Mithras-Helios-Hermes in the Nemrud Dağı stele.³⁷

Stele No. 2 (fig. 3)

As noted above, the contents of the front face of the stele could not be determined as it could not be lifted. The inscription on it is very worn. However, in order to document the presence of a second stele in the *temenos*, the picture of the stele showing its current condition in the field and its measurements are given

³³ Yorke 1898, 313; Waldmann 1973, 16-27, Taf. V; Crowther - Facella 2018, 90; Doğan - Tosun 2021, 408-409.

³⁴ Crowther - Facella 2003, 68; Crowther - Facella 2018, 88; Brijder 2014, 134. Lines 1-6 and 9-19 of the inscription are the same as lines 1-7 and 10-24 of the cult inscription of Nemrud Dağı. See Yorke 1898, 313-314.

³⁵ Jacobs emphasizes the syncretism in the stele and dates it to 62 BCE. See Jacobs 1998, 43.

³⁶ For Base II of the Arsameia-on-the-Nymphaios stelae, see Waldmann 1973, 110-111, Taf. XXX. 1-2; Dörner 1990, 185-186, Res. 27-29; Blömer - Winter 2011, 80-81; Brijder 2014, 242-245, Fig. 157-160; Doğan - Tosun 2021, 388-389, Res. 3. For the second stele, see Waldmann 1973, 117-119, Taf. XXX.3; Brijder 2014, 258-260, Fig. 171 a-c; Doğan - Tosun 2021, 389, Res. 4. For the Nemrud Dağı dexiosis stele, see Humann - Puchstein 1890, 320-321, Taf. XXXVIII. 2; Wagner 1983, Taf. 47.1; Allgöwer 1993, Fig. 23.2; Mittag 2004, 26, Abb. 3; Rose 2013, 224, Fig. 7; Brijder 2014, Fig. 50a-b; Doğan - Tosun 2021, 403.

³⁷ Humann - Puchstein 1890, Mittag 2004, 7; 321; Rose 2013, 224; Çevik 2014, 187-188, 4; Doğan - Tosun 2021, 40.

here. Stele no. 2 is also made of limestone and its height is 160 cm. There are differences in width and thickness due to damage. The stele is 117 cm wide at the bottom and 39 cm thick. At the upper part, one of the corners is broken and missing. For this reason, the preserved width was measured as 100 cm and the thickness as 30 cm. At the lower section of the stele, there is a tenon 40 cm wide and approximately 20 cm long that is aligned with the middle of the stele. This tenon fits into the socket on the base and allows the stele to stand upright.

Discussion and Conclusion

When the depictions of the god Apollo on dexiosis stelae are considered, it can be seen that he is depicted standing and in eastern costume in Arsameia-on-the-Nymphaios and Nemrud Dağı *hierotheresia*, while in the Sofraz, Zeugma BEc and Samsat Sx stelae he is again depicted as standing but nude except for a cloak covering his shoulders and back. The depiction of Apollo in the Gerger stele is similar to the Sofraz, Zeugma BEc and Samsat Sx stelae in that he is nude except for a cloak covering his shoulders and back, while it differs from the stelae of Arsameia-on-the-Nymphaios and Nemrud Dağı. As for the placement of the figures on the stelae, it can be seen that among the stelae of Sofraz, Zeugma BEc and Samosata Sx, with which it bears iconographic similarities, the Gerger stele exhibits similar characteristics to the Sofraz stele. In both stelae, the figures are very close to each other and the lower part of the royal scepter held by Antiochus in his left hand is not carved.

Although the Gerger stele is similar to the stelae of Sofraz, Zeugma BEc and Samosata Sx, it differs in position and details. The first and most important difference is that Apollo, who is depicted standing on the Sofraz, Zeugma BEc and Samsat Sx stelae, is depicted sitting on a throne in the Gerger example. The second difference is that the number of rays of the solar crown on Apollo's head is 14 on Sofraz, 19 on Zeugma BEc, 20 on Samsat Sx, while on the Gerger stele it is probably 22, of which 21 are clear.³⁸ Thirdly, in the three stele examples, the ends of the rays protrude beyond the *corona*, whereas in the Gerger stele there are no traces of a *corona* and the ends of the rays reach the borders of the throne where Apollo is seated. In addition, in the stelae of Sofraz, Zeugma BEc and Samsat Sx, there is a laurel wreath on Apollo's head and a laurel branch in his hand, whereas in the Gerger example, due to fractures and wear, it could not be determined whether there is a laurel wreath on his head or a laurel branch in his hand.

³⁸ For the number of rays in the solar crown in Sofraz, Zeugma BEc and Samsat Sx stelae, see Crowther - Facella 2003, 45; Brijder 2014, 132 (Samsat Sx), 142 (Sofraz), 152 (Zeugma BEc); Doğan – Tosun 2021, 406.

Considering the clothes of King Antiochus I on the stelae, we see that they are similar except for minor differences. In the Gerger stele, there is a detail of the net motif with a star in the center on the cuirass. This detail is seen on all the stelae of Antiochus. The ceremonial dagger on the Gerger stele is also seen on other stelae, although there may be slight differences in the position of the dagger. On the relief of Antiochus I and Heracles at Arsameia-on-the-Nymphaios, the ceremonial dagger extends over the right leg to the knee and is almost frontal. On the Sofraz stele, the ceremonial dagger hangs in profile, rather than on the right leg as in the Arsameia-on-the-Nymphaios example. In this respect, it is similar to the Gerger example. On the Zeugma (BEc) stele, the ceremonial dagger is depicted neither in full frontal view as in the Arsameia-on-the-Nymphaios example, nor in profile as in the Sofraz example, but somewhere in between.³⁹ Apart from these, decorations of lion, eagle, lightning and floral motifs on the crown of Antiochus I cannot be seen on the Gerger stele due to damage.⁴⁰

During which phase of King Antiochus I's reign were the new *temenos* and stelae discovered at Gerger constructed? Based on iconography, contents of the inscriptions, later updates and historical events, scholars divided the cult reforms of King Antiochus I into two phases. The Sofraz stele is dated to the early phase because of Apollo's depiction in a Greek way, the inscription's dedication of the *temenos* to "*Apollo Epekoos who listens to prayers and Artemis Diktyna*", Antiochus I's describing himself as "...*founder and benefactor and the first to assume the kidaris*" and not using the title "*Great King*".⁴¹ In this phase, Apollo appears as a purely Greek deity, not yet identified with the Persian god Mithras. In evaluations that take into account historical events, it is stated that the kingdom of Commagene was a vassal kingdom under Tigranes from 86 BCE until the war in 66 BCE, in which Pompeus defeated the Armenian King Tigranes; this situation persisted in 69 BCE, when Antiochus I ascended the throne; Antiochus I maintained his position as the king of Commagene and Seleucia-on-the-Euphrates (Zeugma) was annexed to Commagene in the rulers congress held at Amisus in 65/64 BCE.⁴² Wagner dates the Sofraz stele to the first phase of the cult, 69-65/64 BCE, based on historical events, iconography and the above-

³⁹ See Rose 2013, 220, Fig. 2; Brijder 2014, 142, Fig. 89 (Sofraz, 152, Fig. 95 (Zeugma BEc); Doğan – Tosun 2021, 395, 400.

⁴⁰ In the dexiosis stele of Antiochus I and Heracles at Arsameia-on-the-Nymphaios, in the dexiosis stele of Antiochus I and Apollo-Mithras-Helios-Hermes on Nemrud Dağı and in the Selik stele, there are floral motifs and a lion figure on the crown on the king's head. See Rose 2013, Fig. 7; Brijder 2014, 136, Fig. 85a-b (Selik), 250, Fig. 164 (Arsameia-on-the-Nymphaios). On the other hand, there is an eagle figure instead of a lion on the crown in the Sofraz (Sx) and Zeugma (BEc) stelae. Brijder 2014, 142, Fig. 89 (Sofraz, 152, Fig. 95 (Zeugma BEc); Doğan – Tosun 2021, 395, 400.

⁴¹ Wagner – Petzl 1976, 209; Allgöwer 1993, 259; Jacobs 1998, 42-43; Mittag 2004, 11-12; Wagner 2018, 58, 61; Facella 2006, 280-281; Brijder 2014, 143.

⁴² Wagner – Petzl 1976, 202, 211, Wagner 1983, 204; Mittag 2004, 3-4; Wagner 2018, 41-42.

mentioned phrases in the inscription.⁴³ In addition, due to the parallelism of the contents of the inscriptions, he has also included the stelae of Adıyaman and Çaputlu Ağaç Küllük in this phase.⁴⁴ The second phase is dated after 65/64 BCE and the other *temene* and stelae are considered in this phase.

Considering these historical events, the Zeugma BEc stele is assumed to have been erected in the *temenos* built immediately after Zeugma was annexed to the kingdom of Commagene in 65/64 BCE.⁴⁵ Although the contents of the inscription BEc point to the last years of Antiochus I, it was determined that the stele was updated and the original BEe inscription was erased and replaced with BEc.⁴⁶ The original BEe inscription is in agreement with the stelae of Sofraz, Adıyaman and Çaputlu Ağaç Küllük.⁴⁷ Therefore, Facella dates the Zeugma BEe inscription to just after 65/64 BCE; Rose dates it to roughly the same time as the Sofraz stele, and BEc, which was written over the BEe, to the late 40s and early 30s.⁴⁸

As can be understood from the above, other stelae of King Antiochus I with dexiosis scenes were evaluated as a whole together with their inscriptions. In this study, however, only the iconography on stele no. 1 was analyzed. The main reason for this is that the inscriptions are quite worn.

Until the stelae in question were identified, ten *temenos* sites or sanctuaries that are likely to be *temenos* were identified in the Commagene geography.⁴⁹ Only suggestions have been made for the *temenos* sites to which the stelae previously uncovered or discovered in these areas belong. On the other hand, the *temenos* of the stelae found in Gerger could be determined with certainty based on the stele bases preserved in situ. However, it is important in terms of showing that the *temenos* sites are spread over the entire geography of the kingdom.

Another result revealed by the Gerger stele no.1 is that, unlike the other stelae where Apollo is depicted standing, he is depicted in a sitting position, which shows that no single iconographic template was used on the stelae.

In summary, since the inscriptions on the stelae have been damaged, it is not possible for the time being to determine whether an update was made to the stele. For this reason, an evaluation could be made based on the iconography on stele no.1. To make a suggestion based on the depictions on the Gerger stele no. 1, the

⁴³ Wagner 1983, 200, 205.

⁴⁴ Wagner – Petzl 203, 89; Wagner – Petzl 1976, 211; Crowther - Facella 2018, 89.

⁴⁵ Crowther - Facella 2003, 62; Wagner 2018, 63; Crowther - Facella 2018, 89.

⁴⁶ Crowther - Facella 2003, 62; Rose 2013, 224-225.

⁴⁷ Crowther - Facella 2003, 62-63; Crowther - Facella 2018, 89.

⁴⁸ Crowther - Facella 2003, 62; Rose 2013, 224.

⁴⁹ For the Sofraz *temenos*, Wagner points to the vicinity of Sofraz Köy. See Wagner – Petzl 1976, 210; Brijder 2014, 142. For the Samosata *temene*, see Brijder 2014, 132; Crowther - Facella 2018, 90-91. Two possible *temenos* sites are mentioned at Zeugma, one on Belkıs hill and the other in the settlement area. See Rose 2013, 227; Facella 2006, 234; Crowther - Facella 2018, 87-88.

nude depiction of god Apollo is similar to the Sofraz, Samosata (Sx) and Zeugma (BEc) stelae. However, the fact that the figures of Antiochus I and Apollo are depicted very close to each other and the lower part of the royal scepter held by Antiochus I in his left hand is not carved as in the Sofraz stele indicates that Gerger stele no. 1 is closer to the Sofraz stele. Yet, the depiction of the god sitting on a throne suggests that this is an earlier product than the standardized standing god figures of the newly established religious program. The updates made to the inscriptions on the Sofraz, Zeugma BEc and Palaş/Gümüşkaya stelae and the addition of figures to the Sofraz stele after the update of the inscription suggest that a common template may have been created in the figures as in the texts. The Samosata Sx stele, which has no trace of an update, supports this idea with its similar textual content and the depiction of Apollo.

In addition, in the stelae of Nemrud Dağı *hierotheriesion*, which is considered the latest example among the *hierotheresia* and *temene*, Zeus-Oromasdes is depicted as sitting on the throne, while Apollo is depicted standing and in eastern costume. This suggests the possibility that the Gerger stele no. 1 with Apollo in the sitting position also belongs to the late phase. However, if a late phase suggestion is to be made for the seated depiction of Apollo in Gerger stele no. 1 based on the Zeus-Oromasdes stele, Apollo is expected to be depicted in eastern clothes and standing as in the late examples from Nemrud Dağı and Arsameia. On the other hand, in the Gerger example, the god is depicted nude in a purely Greek way. In this case, the seated depiction of Zeus-Oromasdes is probably related to his identity as the chief god. In the early periods of his reign, Antiochus I adopted the cult of particularly Apollo and Artemis, besides Zeus.⁵⁰ The seated representation in the Gerger stele no. 1 must be a reflection of this. Therefore, it is highly probable that the Gerger stele was produced at an early phase, when Antiochus I's syncretic understanding of religion was not yet formed. However, as with the other stelae, evaluating the inscription and iconography together will make it possible to obtain clearer results. In the future, it will be possible to arrive at clearer conclusions and update our knowledge with epigraphy, restoration and cleaning studies to be carried out on the stelae.

⁵⁰ Wagner states that at the beginning of his reign, King Antiochus I honored Apollo and Artemis alongside Zeus, continuing the traditions of the Seleucids. See Wagner 2018, 59.

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Fig. 1. Kımıl Dağı, the plateau where the *temenos* is located, and the stelae (Kahraman Yağız archive)



Fig. 2. The bases in the *temenos* (Mehmet Alkan archive)



Fig. 3. Stele no. 2 (Kahraman Yağız archive)



Fig. 3. Stele no. 2 (Kahraman Yağız archive)



Fig. 5. Upper part of stele no. 1 (Kahraman Yağız archive)



Fig. 6. Antiochus I's head
(K.Yağız archive)



Fig. 7. Antiochus I's cuirass
(K.Yağız archive)



Fig. 8. Detail showing the proximity of Antiochus I and Apollo
(Kahraman Yağız archive)



Fig. 9. God Apollo sitting on the throne (Kahraman Yağız archive)

Chapter 15

Intellectual Structure of Organizations

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An organizational structure is a system that outlines how certain activities are directed to achieve the goals of an organization. These activities include rules, roles and responsibilities. The organizational structure also determines how information flows between levels within the company. For example, in a centralized structure, decisions flow from the top down, while in a decentralized structure, decision-making power is distributed among the various levels of the organization. Having an organizational structure allows companies to stay productive and focused. Businesses of all shapes and sizes make heavy use of organizational structures. A specific hierarchy is defined within an organization. A successful organizational structure defines each employee's job and how they fit into the overall system (Lewis, 2019). Simply put, the organizational structure reveals who does what in order for the company to achieve its goals. This structure provides a visual representation of how a company is shaping up and how it can best move forward towards achieving its goals. Organizational structures are normally shown in some sort of chart or diagram, such as a pyramid, with the most powerful members of the organization at the top and those with the least power at the bottom. Not having a formal structure is a difficult situation for some organizations. For example, employees may have trouble knowing who to report to. This can lead to uncertainty about who is responsible for what in the organization. Having an organizational structure helps efficiency and brings clarity within the organization for employees at all levels. This also means that each unit can be more productive as they will focus more on energy and time.

The organizational structure aligns and links the parts of an organization so that the organization can reach its maximum performance along with its workflow. The structure chosen affects the success of an organization in achieving its strategy and goals. Leaders within the organization must know the features, benefits, and limitations of various organizational structures to assist in this strategic alignment. Organizational structure is the way work flows through an organization. It allows groups to work together within their individual functions to manage tasks. Traditional organizational structures tend to be more formal with employees grouped by function (such as finance or operations), region, or product line (Rehman, Mohamed, & Ayoup, 2019). Less traditional structures are more loosely woven and flexible with the ability to respond quickly to changing business environments.

Today, organizational structures are changing rapidly. As companies continue to evolve and increase their global presence, future organizations include a fluid, free-form organization, member ownership and an entrepreneurial approach among all members.

Problems That Can be Arised from Wrong Organizational Structure

Rapid reorganization of business units, departments or functions can lead to ineffective, misaligned organizational structures that do not support the business. Poorly designed organizations can create significant problems, including:

- Structural gaps in roles, business processes, responsibilities, and critical information flows can occur when companies eliminate middle management levels without eliminating work, forcing employees to take on additional responsibilities.
- Problems of diminished capacity and talent can arise when a) lower-level employees who come into play when middle management disappears are ill-equipped to perform the necessary tasks, and b) senior managers need to take on more tactical responsibility.
- Irregularity and unsuitable personnel can affect a company's cost structure, cash flow, and ability to deliver goods or services. Organizations quickly assign people to meet changing business needs. However, with resources cut to the marrow, most organizations' staff can only focus on their immediate responsibilities, leaving little time, energy, or desire to work outside of their current job scope. As a result, reduced capacity and delayed response times affect an organization's ability to stay competitive.
- Decreased workforce participation can reduce retention, reduce customer loyalty, and limit corporate performance and stakeholder value.

The Importance of Aligning Organizational Structure with Business Strategy

The key to productive performance in organizations relates to the extent to which the four work elements are compatible:

Leadership: Persons responsible for developing and implementing the strategy and monitoring results.

Organization: The structure, processes and operations in which the strategy is deployed.

Occupations: Required roles and responsibilities.

Employees: People with the experience, skills and competencies needed to execute the strategy.

The need to harmonize these business elements and adapt to change quickly and strategically is essential to success in a high-performing organization. When these four elements are in sync, efficient performance is more likely. Adapting and maintaining institutional capacity takes time and critical thinking. Organizations should identify the results the new structure or process aims to produce. This can often be achieved by re-evaluating the following questions:

- Which business is critical, scalable or should it be eliminated?
- What are the current role requirements when determining required new or changed roles?
- What are the key criteria and responsibilities?
- What are the critical information flows?
- Who has the decision-making authority at the organizational level?

Basic Elements of Organizational Structures

The five elements that emerge in the organization form an organizational structure. These are job design-segmentation-assignment-control area and chain of command. These elements form an organizational chart and the organizational structure itself (Macho-Stadler, Matsushima, & Shinohara, 2021). "Compartmentalization" refers to the way an organization structures its work to coordinate its work. "Control area" means the number of people reporting to a manager. "Chain of command" refers to a line of authority. The company's managerial centralization strategy also affects organizational structures. "Centralization", the degree to which decision-making is restricted to higher levels of government, typically leads to a pyramid structure. Centralization is often a recommended process when conflicting goals and strategies between operating units create the need for a uniform policy.

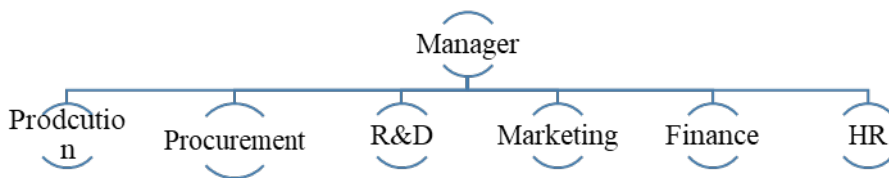
Types of Organizational Structure

Institutional structures range from rigid, vertically integrated, hierarchical, autocratic structures; are evolving into relatively borderless, empowered, networked organizations designed to quickly respond to customer needs with customized products and services. Organizations today are often structured vertically, vertically and horizontally, or with clear boundaries. Specific types of structures within each of these categories are:

- Portrait—functional and split.
- Vertical and horizontal—matrix.
- Unlimited (also called "open border") - modular, virtual and cellular.

1. Vertical Structures (Functional and Divided)

There are two main types of vertical structures. These are functional and divided structures. The functional structure separates work and employees according to specialization. It is a hierarchical, usually vertically integrated structure. It emphasizes standardization in organization and processes for employees specializing in relatively narrow jobs. This traditional type of organization includes departments such as production, sales, research and development, accounting, HR and marketing. Each department has a separate function and has employees specialized in that field. For example, all HR professionals are part of the same function and report to a senior HR leader. The same reporting process applies to other functions such as finance or operations. In functional structures, employees report directly to managers in their functional areas, who in turn report to a chief officer of the organization. Management from above centrally coordinates the specialized units. A functional organizational chart might look like this:



The advantages of a functional structure are as follows:

- The organization develops experts in their fields.
- Individuals perform only the tasks for which they are most competent.
- This form is logical and easy to understand.

The disadvantages of a functional structure are as follows:

- People reside in specialized "units" and often fail to coordinate or communicate with other units.
- Cross-functional activity is more difficult to promote.
- Structure tends to be resistant to change.

This structure works best for centralized organizations because there are few common concerns or goals across functional areas (eg, marketing, manufacturing, purchasing, IT). Given centralized decision making, the organization can benefit from economies of scale, possibly as there are centralized purchasing functions. A proper management system is essential to coordinate departments (Lee, 2020). The management system can be a specific leader, such as a vice president, a computer system, or some other format. Also a vertical arrangement, a divisional

structure usually divides work and employees by output, but a divisional structure may be divided by another variable such as market or region.

The advantages of a split organizational structure are:

- Provides greater focus and flexibility on the core competency of each division.
- Allows departments to focus on producing special products while using the knowledge gained from the relevant departments.
- Allows more coordination than functional structure.
- Decision-making authority pushed to lower levels of the organization enables faster and customized decisions to be made.

The disadvantages of a split organizational structure are:

- It can lead to loss of productivity and duplication of effort as each division must obtain the same resources.
- Each division usually has its own research and development, marketing and other units that could otherwise assist each other.
- Employees with similar technical career paths have less interaction.
- Each division usually purchases similar materials in smaller quantities and may pay more per item.

Such a structure is helpful when the product base expands in quantity or complexity (Agbejule, Rapo, & Saarikoski, 2021). However, when competition between departments becomes important, when the organization does not adapt quickly enough, or there are no economies of scale, the organization may need a more complex matrix structure.

2. Matrix Organizational Structures

A matrix structure combines functional and split structures to create a dual command case. In a matrix structure, an employee reports to two managers who are jointly responsible for the employee's performance. Typically, one manager works in an administrative function such as finance, HR, information technology, sales or marketing, and the other in a business unit related to a product, service, customer or geography.

The advantages of the matrix structure include:

- Creates a functional and fragmented partnership and focuses on business rather than people.
- Minimizes costs by sharing important contacts.
- Creates a better balance between completion time and cost.

- Provides a better overview of a product manufactured in various areas or sold by various subsidiaries in different markets.

The disadvantages of matrix organizations include:

- Responsibilities can be unclear, thus complicating governance and control.
- Reporting to multiple managers at the same time can be confusing for employees and supervisors.
- Dual chain of command requires collaboration between two direct supervisors to set an employee's job priorities, job assignments, and performance standards.
- When the function leader and product leader make contradictory demands from the employee, the employee's stress level increases and performance may decrease.
- Employees spend more time in meetings and in coordination with other employees.

These disadvantages can be exacerbated if the matrix moves beyond two-dimensional (eg. employees report to two managers) to multidimensional (eg, employees report to three or more managers). Matrix structures are common in predominantly project-oriented organizations such as construction companies (Lewis, 2019). These structures emerged from project structures where employees from different functions formed teams until they completed a project and then returned to their respective functions. In a matrix organization, each project manager reports directly to the vice president and general manager. Every project is essentially a mini profit center and therefore general managers often make the decisions.

The matrix-structured organization also provides greater visibility, stronger governance, and greater control in large, complex companies. It is also suitable for business development and coordination of complex processes with strong dependencies. Matrix structures pose formidable challenges for professionals tasked with ensuring equity and fairness across the organization. Managers working in matrix structures should be prepared to intervene through communication and training if the structure achieves these goals. Also, leadership should monitor relationships between managers who share direct reports. These relationships between an employee's managers are crucial to the success of a matrix structure.

3. Open Bounded Structures

Newer trends in structural forms are breaking the traditional boundaries of an organization. Typical internal and external barriers and organizational

frameworks are removed and all organizational units are connected effectively and flexibly (Moon, Morais, de Moura, & Uskul, 2020). Teams replace units; organization and suppliers work together as closely as parts of a single company. The hierarchy is flat; status and rank are minimal. Everyone, including senior management, managers and employees, participates in the decision-making process.

The advantages of open-limited organizations are:

- The ability of all employees to leverage their talents.
- Faster response to market changes.
- Enhanced collaboration and knowledge sharing between functions, departments and staff.

The disadvantages of open-limited organizations are:

- Lack of strong leadership and shared vision.
- Time-consuming processes.
- Potential for workers to be negatively impacted by productivity efforts.
- The possibility of organizations abandoning change if reengineering does not rapidly increase effectiveness.
- Unlimited organizational structures can be created in a variety of ways, including hollow, modular, and virtual organizations.

The Effect of Growth Stages on Organizational Structure

Organizations typically mature in a consistent and predictable way. As they go through various stages of growth, they must address various issues (Astuty, Pasaribu, Rahayu, & Habibie, 2021). This process creates the need for different structures, management skills and priorities.

The four development stages in an organization's life cycle include:

Starting: The initial stage of development is characterized by an inconsistent growth rate, a simple structure, and informal systems. At this stage the organization is typically highly centralized.

Expand: The expansion phase is evidenced by rapid, positive growth and the emergence of formal systems. Organizations at this stage typically focus on centralization with limited authorization.

Consolidation: The consolidation phase is characterized by slower growth, segmentation, formal systems and moderate centralisation.

Diversification: The diversification phase emerges in the process of rapid growth, bureaucracy centralization of older, larger organizations. As an organization grows or moves from one development phase to the next, carefully

planned and well-designed changes to practices and strategies may be necessary to maximize effectiveness. There is no guarantee that an organization will move from one phase to the next. Indeed, an important opportunity for leadership is to recognize indicators that an organization is in a risky or unhealthy stage and to make appropriate structural adjustments.

The art of organizational design is to evaluate key aspects of the environment and their implications for the future of the organization. Getting these features into the right structure is critical to increase efficiency and control costs. Company leaders must examine and evaluate the key structural dimensions and contextual factors available when choosing the best structure for the organization.

Structural Dimension

Leaders can develop an understanding of the internal environment of the organization through measurement and analysis of its structural dimensions (Gallardo-Gallardo, Thunnissen, & Scullion, 2020). Usually the basic dimensions include:

Expertise: The degree to which an organization's activities are divided into specific roles.

Standardization: The degree to which an organization operates under standard rules or procedures.

Formalization: The extent to which instructions and procedures are documented.

Centralization: The degree to which leaders at the top of the management hierarchy have the authority to make certain decisions.

Contextual Dimension

A review of contextual factors will provide a better understanding of the external environment and the relationship between the internal and external environment (Gallardo-Gallardo, Thunnissen, & Scullion, 2020). Some of the important contextual factors to consider in this review include:

Origin and history: Was the organization privately formed? What changes have occurred in ownership or location?

Ownership and control: Is the organization private or public? Is control divided among a few or many?

Dimension: How many employees does the organization have? What are their net assets? What is the market position?

Location: How many fields of activity does the organization have?

Products and services: What types of goods and services does the organization produce and provide?

Technology: Are the organization's business processes effectively integrated?

Solidarity: To what extent does the organization depend on customers, suppliers, unions or other relevant organizations?

After examining structural dimensions and contextual factors and developing an understanding of the link between an organization's structure and strategy, organizational leaders can consider alternative structures. They can use diagnostic models and tools to guide the design process.

Communication and Technology in Organizational Structure

The last few years have seen an unprecedented expansion and development in online communication. The decline in traditional communication methods and the dramatic increase in cyber communication has had a huge impact on the workplace and is leading to restructuring. As organizations continue to be restructured to remain competitive, communication enables the transition to an effective new organizational structure (Macho-Stadler, Matsushima, & Shinohara, 2021). Research shows that companies can positively affect their credibility with their employees through various organizational communication programs.

When establishing internal communication channels, the leader should be aware of the advantages and shortcomings of communication technologies and match them with the needs, strategic goals and structure of the organization (Soderstrom & Weber, 2020). Employers should also be aware of common communication challenges in various organizational structures and be prepared to deal with them. For example, communication technology has enabled organizations to create virtual workspaces and teams. In a virtual team, members from various geographic locations work together on a task, communicating via email, instant messaging, teleconferencing, video conferencing, and web-based workspaces (Hsiao & Wu, 2019). While virtual teams have significant advantages (especially reduced travel costs and flexibility in staffing and work schedules), they also present challenges. Virtual teams often find it difficult to coordinate team logistics and master new technologies (Soderstrom & Weber, 2020). Communication is also a big challenge due to the lack of visual (body language) and verbal (intonation) cues.

Global Issues in Organizations

As companies expand worldwide, organizational structures often need to change. An organization's leaders must plan carefully before opening an office in another country. As rapid changes in technology affect global communication, employees should be aware of the linguistic, cultural, religious and social

differences between colleagues and business contacts (Lewis, 2019). The organization should train all employees (not just traveling executives and CEOs) in cultural literacy. In addition, employers should be aware that language difficulties, time and distance challenges, lack of face-to-face contact and, above all, barriers created by cultural differences and personal communication styles make global virtual work much more complex than global virtual work. As an organization moves internationally, laws in host countries should also be evaluated and a plan for compliance established before expansion takes place (Lewis, 2019). Employers must anticipate and plan for laws that affect all aspects of the employee experience, including hiring, benefits, leaves and firing.

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Chapter 16

Contexts and Challenges of Disaster Management System

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INTRODUCTION

Disasters are sudden or frequent events that cause social, economic, environmental, and physical losses, negatively affect the people and environment. It can be natural or man-made events that have both negative and positive effects of a disaster but the negative effects are much higher than the positive effects. After industrial revolution, the world has seen an increasing trend in frequency of natural disasters, and an increase in the number of affected populations with severe losses and damages (IPCC, 2012; Facello, 2013). Disasters affect are posing additional pressure to combat its impacts. Therefore, adequate measures/actions are required before (pre-disaster), during (during disaster) and after (post-disaster) all disaster events.

For making successful combat of a disaster and its impacts, countries must have an effective Disaster Management (DM) System. Today, Disaster Management Systems (DMS) have been developed with an idea of establishing effective and efficient management to reduce disaster damage, prevent loss of life, property and others caused by the disasters. It could include plans, programs, policies, and necessary arrangements to engage public and private organizations in a comprehensive and coordinated way to respond to disasters (Facello, 2013). Therefore, DMS is a product of an interdisciplinary study and its strategies and systems can differ from country to country. For instance, Turkey and Japan often face geological and meteorological disasters; Bangladesh and the USA often face meteorological disasters; etc. These countries pose a diverse landscape and are affected by many other types of disasters. In this chapter, the contexts of the DM system have been discussed; examples from different DM systems have been provided, challenges have been defined. The aim is to highlight the contexts of DM System, efficacy of DM systems and challenges, and to provide an insight for a more effective DM system.

KEY TERMS

Disaster Management

As per the United Nations Office for Disaster Risk Reduction (UNDRR), disaster management is the organization, planning, and application of measures for preparing for, responding to, and recovering from disasters (UNDRR, 2022). It may not completely avert or eliminate the threats; it may reduce the negative impact of disasters and “build back better” by reducing the risk, community recovery, and effective implementation of institutional mechanisms, legislation, and regulation, and proper monitoring and evaluation after a disaster (UNDRR, 2022). Disaster management can also be defined as a “policy system” that

ensures necessary administrative, legal, institutional, and technical work before, during, and after disaster. It aims to reduce the impact, or avoid potential impact or unexpected losses from disasters, and helps to take rapid initial action after a disaster and recover effectively. All disasters follow a management cycle regardless of their origins or growth, and it can be divided into 4 main phases such as: i) Prevention and Mitigation, ii) Preparation, iii) Rescue and response, and iv) Recovery.

Disaster Risk Management

As disaster is the likelihood of loss and or damage from a disaster event in a given period of time, therefore, its management is also examined as disaster risk management. According to The United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), disaster-risk management is the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards, and the possibility of disaster (UNSpider, n.d). Both disaster management and disaster risk management should be guided by the Sendai Framework for Disaster Risk Reduction 2015–2030, and should coordinate within countries existing or relevant plans, policies, programs etc. unlike disaster management. The disaster risk management are also moving through a management cycle covering response, rehabilitation and recovery, prevention and mitigation, preparedness etc. The following figure 1 shows the various phases of disaster risk management.

Figure 1. Phases of Disaster Risk Management



Source: UNSpider (n.d)

Disaster Management Systems

The Disaster Management System (DMS) is a collection of Information and Communication Technologies (ICTs), Disaster Management Organizations (DMOs), relationships among the DMOs, and operational procedures or business processes of the DMOs, of which objective is to prevent, mitigate, and minimize the impact of disasters (Yang, 2009). The disaster management system should be effective and could be termed as “Effective Disaster Management (EDM)” because it should play an effective role in the disaster management cycle. It depends on interrelated activities, and these activities are often knowledge-intensive and time-sensitive (Othman and Beydoun 2011). Failure to create and implement an effective plan could lead to severe damage to life, properties, and gain.

Integrated Disaster Management

The term “integrated” is also used as “total” or “holistic” or “comprehensive” etc. in various literatures and among them “integrated” is the best use of term. The components of Integrated Disaster Management (IDM) are mitigation, preparedness, response, and recovery. According to AFAD (2014), integrated disaster management is such a management system or process can take into account all hazards to create a durable and resilient society that can cope with disasters, works to be done in different phases of disaster management cycle and measures that could be taken, can be realized a management process and be realized by using all power and resources of the society. The following are some crucial factors could contribute to the successful management of a disaster (Moe and Pathranarakul, 2006). Such as:

- i. Effective institutional arrangement
- ii. Effective IMS (Information Management System)
- iii. Effective coordination
- iv. Effective collaboration
- v. Necessary supportive rules, laws and regulations
- vi. Competent managers and team members
- vii. Effective consultation with key stakeholders and target beneficiaries
- viii. Effective communication mechanism
- ix. Clearly defined agenda, goals and commitments by the key stakeholders.
- x. Effective logistics management
- xi. Sufficient mobilization and disbursement of resources.

Decentralized Disaster Management

Decentralization is the process of transferring power from the central government to local government entities in order to address grass-roots or local people's concerns. A good disaster governance is based on grassroots voice/local people voice by increasing local people's capacity, bringing their perspectives, ideas, knowledge, techniques through local people's participation. It is evident that central governments should prepare for and respond to disasters more effectively through their centralized systems (Ainuddin et al., 2013). However, proper management requires both vertical and horizontal level i.e. multilevel collaboration where inclusion of local level stakeholders poses important functions. The central governmental unit can be in a hierarchal order for high, medium, and low levels of disaster affected areas respectively (Moe and Pathranarakul, 2006). In order to respond to disasters and reduce context-specific risks, adequate local capacity is required for local governments which are a key element in mainstream disaster risk reduction paradigms as per the Sendai Framework for Disaster Risk Reduction. In Turkey, the government has introduced new oversight systems more especially after the introduction of the new DMS in 1999 after the 1999 Marmara Earthquake. Then Turkey restructured a more centralized and standardized system. Later on, in 2009, it has established the Disaster and Emergency Management Presidency of Turkey (AFAD) as a central agency to combat disaster (Habib and Goktug, 2014). In the UK, it is performed by central government unit of Civil Contingencies Secretariat (CCS) (Song et al., 2020).

CONTEXTS

Overall management context

The overall management approach can be evaluated through decentralized, coordinated, and proactive-based. A decentralized management system can evaluate the link between national and local governance, mainstream disaster risk reduction, and/or climate change adaptation and mitigation paradigms. Coordination in disaster management can be evaluated among the public and private sectors at local, provincial, national and even international levels. Here, co-ordination will provide benefits such as: involving economic efficiency, quality of services, organizational learning, accessing to new skills, risk diffusion, improving public accountability, reducing uncertainty and avoiding the conflict etc. (Bhadori et al., 2005). Organizational factors are the main instruments that influence coordination effort. In this respect, the following things should be considered (Bhadori et al., 2005):

- Collaboration with full governance practices
- Resource management
- Strong collaborative capabilities

In disasters, if there is no prior relationship between the organizations then coordination between agencies is becoming a challenging task. In this respect, the logistics and resource mobilization planning must be done and local level initiatives (such as preparations, education, training etc.) should be planned within the abilities and available local resources.

The overall approach should also be viewed through a “proactive approach”, meaning that maintaining people’s preparedness with the aim of making communities resilient to natural disasters (Ahsan & Özbek, 2022a). This approach identifies threats and aims to prevent those events from ever happening in the first place. It reduces the probable risk and vulnerability and minimizes the magnitude of damage. It is also cost-effective, since it reduces emergency, recovery, and reconstruction expenditures. Proactive measures should play a role not only in structural safety factors but also non-structural factors such as access to knowledge and technology, people’s preparedness such as education and training, etc. (Ahsan and Özbek, 2022). For example, Bangladesh is implementing a comprehensive disaster management program (CDMP). The government’s vision for the programme is, “to reduce the risk of people, especially the poor and the disadvantaged, from the effects of natural, environmental, and human-induced hazards to a manageable and acceptable humanitarian level and to have in place an efficient emergency response management system”. The CDMP is designed to strengthen Bangladesh Disaster Management System and more specifically to achieve a paradigm shift from reactive response to a proactive risk reduction culture (NSET, 2011).

Product and impact-based context

Disaster management follows a comprehensive approach by deploying product-focused, impact-based and technology so that government or non-government could able to withstand the existing and future disaster.

Firstly, product-based approach can ensure technical capacity, can form institution-building, ensure sufficient resources and proper institutionalization. These products will design in such a way so that the disaster response organizations could able to withstand the existing and future disaster.

Secondly, the impact-based approach can save lives and protect property and livelihoods. It can ensure collaborative partnerships between national and local level stakeholders in disaster risk management (Climate centre, n.d).

Focal agency attributes vis-à-vis Multi-agency attributes

Many DMS often lack the capability to cope with the complexity and uncertainty of disasters. In this respect, focal or single-agency disaster management could ensure coordination and collaboration with public and private bodies to enable a rapid and effective response to an unexpected event or disaster. Examples include such as the Federal Emergency Management Agency (FEMA) in the United States, Turkey's Disaster and Emergency Management Presidency (AFAD), Japan's Central Disaster Management Council (CDMC) (Song et al., 2020). The initial response also depends on scale of a disaster, provincial/state/federal/central government authority intervene if the local government cannot perform effectively as per their capacity.

The notable examples can be outlined from FEMA and AFAD's formation and their role as a focal agency in their countries disaster management. On 1st April, 1979; the USA has established the Federal Emergency Management Agency (FEMA) in order to establish after nuclear accident at Three Mile Island. It has been established for cooperation and coordination to respond to disasters as well as various post-disaster recovery works and to provide funds. For FEMA to perform its functions, the President must declare the event a disaster. The Emergency Management Council is the supreme decision-making body of FEMA, and the organization is directly subordinate to the Ministry of Interior. The FEMA conducts prevention, preparedness, recovery and response for all disasters, including terrorism, and seeks to cooperate with other organizations. Federal agencies must work in partnership with FEMA. So it seems that FEMA works closely with local government bodies. On the other hand, after learning lessons from the Marmara earthquake in 1999, Turkey founded the Disaster and Emergency Management Presidency (AFAD) to ensure a more comprehensive and effective structure that would meet all the needs of a successful disaster management program. AFAD can form and operate working groups by building coordination and cooperation with different public and private stakeholders.

Considering various limitations in preparedness, planning, and training phases at the local level, within the abilities and available resources of a single agency do little to prepare for disaster. Multi-agency disaster management in this situation could collaborate among geographically distributed public and private organizations to enable a rapid and effective response to an unexpected event. Many countries in the world follow a multi-agency disaster management system (Steenbruggen et al., 2013). The performance of the multi-agency disaster system will improve when, and how relevant obstacles are dealt with simultaneously at the various levels. Because it is a multi-tiered system, disaster

management capacity is built up from the local to the state/province to the federal/national level. In the different tiers, information and system quality are mostly important for an efficient and effective multi-agency DMS (Steenbruggen et al., 2013). The following table 1 shows the disaster level and responsibility of different organizations.

Table 1. Disaster Level and their Responsibility

Level	Response	Responsible authority
L1	Adequate local support/capabilities	Local disaster management organizations (public and private)
L2	Need other provincial support	Local disaster management organizations (public and private) + Responsible of supportive provinces/surrounding provinces
L3	Need national support	Responsible supportive provinces + National capacity
L4	Need international support	Responsible supportive provinces + National capacity + International capacity

Source: Habib and Goktug, 2014 (edited by the author)

Strategic context

All the countries in the world pose a disaster management and regulatory system and try to withstand such disaster. In this respect, strategic plan is called the “decision guide at lower levels (e.g. Operational, tactical, individual)” can even solve the critical challenges in disaster management. In the last decades, strategic planning has been directed towards some “new” issues and concepts such as comprehensive, integrated, spatial, technology-based, theme-based, governance, advisory issues, global thinking etc. are getting priority in order to achieve “new” strategic planning goals. Strategic planning depends on a number of actions and activities that should be based on a well-defined process, future-oriented, time-bound, supportive, comprehensive etc. However, when preparing a strategic plan in disaster management there is a need to consider some instructions, when to plan, when not to plan, who will participate in the plan preparation process, the characteristics of a good strategic plan, its risks, general errors, challenges and opportunities. The COVID-19 has taught us the importance of a strategic planning approach for combating or better fight against a disaster (Ahsan, 2020). In this respect, how individual countries or globally should prepare to work together to mitigate disasters not only for a social disaster but also for other types of disasters.

Decision making context

Decision-making in strategic planning procedures are different from administrative and operational decisions. Therefore, identifying actors, identifying effective groups and ways of decision-making are highly vital. In strategic decision making, the active groups in decision making such as strategy makers, resource mobilizers, policy advocacy groups, operational, public, STKs, etc. should participate in the system so that proper monitoring, execution, evaluation and implementation can be performed. However, countries are following different paths to combat disaster as per contexts. For instance, FEMA's strategic plan is more mitigation and risk-oriented whereas AFAD's strategic plan is more response and crisis oriented (Sarı, 2022). Again, FEMA has given more priority on "risk" in its strategic plan whereas AFAD has given more priority on "effective response" in its Strategic Plan (Sarı, 2022).

CHALLENGES

Initial response to a disaster

The initial response to a disaster is critical for disaster management and recovery. Different countries are applying different disaster response systems. Some countries are practicing from central way and some countries are from local way. For instance, the United States, Bangladesh, Japan, the initial response to a disaster are implementing by the local governments (in public level) and NGOs (in private level) to ensure a quick response of a disaster. Subsequently, it is followed by the central government's support activities for response and recovery. However, local government bodies (Si/Gun/Gu Disaster Safety Measure Headquarters) of the Republic of Korea do initial response, and the central government, after being informed of the occurrence of a disaster (Song et al., 2020). After Hurricane Katrina in 2005 in the USA, a report of the U.S. House of Representatives in 2006 titled "A Failure of Initiative" stating on failures of all levels of government to fight against hurricane Katrina (Ahsan & Özbek, 2022; Ahsan, 2019). Two cases are briefly provided the following box 1 in order to highlight the importance of effective initial response after a disaster event: one is the Van Earthquake in 2011 in Turkey and another is Cyclone Preparedness Program (CPP) in Bangladesh. The Van Earthquake is an example of after new DM System in Turkey whereas CPP is a government program in the DM system in Bangladesh.

Box 1: Importance of effective initial response after a disaster: Van Earthquake, 2011 in Turkey vs Cyclone Preparedness Program (CPP) in Bangladesh.

Van Earthquake case after new DM System in Turkey

A 7.2 Mw Earthquake in Van province on October 23, 2011 was the first significant case for AFAD after its formulation. It seemed perfectly planned and coordinated before the event, but the real scenario was different. First, AFAD could not provide an effective logistics and transportation network between affected and supporting locations. Second, it could not organize local organizations effectively adequately and sustainably (Ergünay and Özmen, 2013) and so most of the search and rescue efforts were indirectly assumed by military and international agencies. Finally, the response showed that plans were unrealistic and inapplicable for the Van region which is characterized by rough terrain with insufficient infrastructure (Habib and Goktug, 2014). Though Van earthquake occurred in the underdeveloped and very low population density area of Turkey but 644 people lost their life, 1673 people injured and direct economic loss around 5.5 billion lira (Ergünay and Özmen, 2013). The successes of new DM system seemed behind and need effective intervention, risk reduction and preparedness works, and proper establishment of a sustainable disaster management system is combat future earthquakes (Ergünay and Özmen, 2013).

Cyclone Preparedness Program in Bangladesh

The South-Asian country of Bangladesh is always confronting by cyclone disaster. The Cyclone Preparedness Programme (CPP) has initiated by the Bangladesh Red Crescent Society (BDRCS) in 1972, later on approved by the Government of Bangladesh (GoB) in 1973. Since then, BDRCS has been operating CPP jointly with the cooperation of GoB. The CPP volunteers provide cyclone warnings, shelter provision, rescue, first-aid support, food and clothing provision. As a result of coordination, now CPP program has 76,000 volunteers who are working mainly in remote coastal areas and islands. It is dedicated to reduce losses of life and property from cyclones in Bangladesh (Ahsan, 2019). The following table 2 shows how successful implementation of the CPP as well as growing number of volunteers could help to reduce loss of life.

Table 2: Cyclone Casualties with respect to Number of CPP Volunteers (approx.)

Year	Cyclone name	Causalties from cyclones	Number of volunteers
1970	Bhola cyclone (no special name)	1,000,000	0

Operational response

Among the three disaster management structural levels such as strategic, tactical, and operational, operational level is much more challenging. Many organizations are struggling with operational problems during their life cycle but it is more vital in the implementation and management of a disaster event. The operational response is composed of local governorates and concerned bodies. The national strategy focuses on critical priorities, including understanding disaster risks, enhancing disaster risk governance, investment in disaster risk reduction, disaster resilience, and post-disaster reconstruction (Al Kurdi, 2021). Considering its importance, UN urges that countries should develop their disaster management strategy with the International Sendai Framework for Disaster Reduction 2015–2030.

However, the strategic plan incorporates various operational problems, and highlights the best way to overcome such problems. Again, the tactics concerned with the attainment of strategic intent, the strategy can fail and, when it does, tactics dominate the action. The strategic plan also includes specific and tangible actions assigned to individuals. It ensures specific jobs of who will do what by when and then not only holds those individuals accountable for delivery but also provides them with the resources to do so. Some aspects needed to focus such as:

- Creating the right balance between what the stakeholders/organizations can do and what wants to do
- Closing the performance gap by the organizations or individuals
- Conveying the predicted-desired future state
- Building plans in regular quantitative and qualitative measurements and milestones.

Lack of robust policy

In order to get answers from “wh” questions in policy perspectives such as what happened, when happened, what the effects were, where is/are the affected areas, what situations must be given priority, who is involved in the system, what level of organ involve in the system, who is potential to solve the problem early and so on, it is important to explore the “lens” of disaster in both “retrospective” and “prospective” ways.

Again, as the challenge and context of disasters varies from country to country, and countries' poor policies can affect serious disaster management, especially in coordination and response phase. It can be attributed to a lack of competent managers, leaders in respective institutions who are involved in the policy making and implementation process. An effective governance system should be implemented with relevant expertise in the field. The following questions can be highlighted in DM systems in order to resolve policy challenges:

- What hazards threaten the country/region /area and what vulnerabilities exist?
- What major disasters have occurred and how they are impacting/impacted the development of disaster management in the country?
- What laws and regulations have been enacted by the government to combat disasters?
- What organizations have been created to deal with the disasters
- How successful have they been in terms of mitigation, preparedness, response and recovery initiatives i.e. integrated disaster management?
- What are the strengths and weaknesses of DM systems?
- What are the problems when considering re-adjustments, accomplishments and malfunctioning?

Financial constraints

Countries possessing adequate financial resources can provide plenty of money for disaster preparedness, mitigation and other approaches (Al Kurdi, 2021). It is an opportunity to develop disaster risk reduction capabilities, climate adaptation and mitigation practices, and so on like Qatar and Oman (Al kurdi, 2021). Of course international donor organizations or related alliances are supporting for disaster management but it requires successful or proper management through a good governance system. Grassroots or economically deprived people should include the community in the disaster planning process, and adequate education and training for all social levels. However, the government needs to be well prepared financial plan including human resources for disasters in the future with an integrated plan.

Inadequate data and information

In order to manage the disaster system in an effective way, there is adequate information and data for decision making. Countries need to collect data and analyze it in a proper way otherwise it could lead to poor planning and management, poor logistic and emergency support, and poor or lack of monitoring and evaluation.

Unorganized vertical management and lack of linkages with international level

The vertical management system is an organized, structured system where stakeholders work closely together to facilitate the smooth operation and management. Lack of its organization it can make less greater understanding between national and local governance systems. Collaborative planning with international level can view the weaknesses and challenges of the system and can propose more

effective approach through better understanding by the best practiced country best cases of the country.

Ineffective communication system

Communication system is very vital for planning, organizing, and managing a disaster management system. Limited information control among the external and internal communication, high information uncertainty, information asymmetry are the features of disaster situations in general that create huge challenges for crisis communication. In this respect, an effective communication system with stakeholders could lead to successful outcomes in disaster management.

CONCLUSIONS

Man-made disasters could be prevented by human intervention. However, it is not easy to combat against a disaster fully, but it is potential to form a doable structure to respond, manage, and mitigate the devastating effects of disasters quickly. Disaster-management or disaster risk management systems in the countries follow different disaster management patterns. For instance, Turkey is following both a centralized and local government approach whereas The UK, Bangladesh is following mainly on local government approach but they all rotate in multi-tiered disaster management capacity, starting from the local level, to state/province, and later on the federal/national level.

It is evident that many international agencies are working on disaster risk reduction and management but countries individually should help to work together in a collaborate way. A forward-looking process in strategic planning could enable an organization or a country to proceed in line with its ideals or best practices. Resources that are used to carry out activities and strategic planning ensures, are needed to use in line with the determined aim and objectives, so that performance and quality of the organization can be increased.

Of course, disaster should manage through a robust system, focus various attributes but these systems and attributes should provide attention on contexts and challenges that must be in line in its existing system if it is central or local based disaster management. There is need to create a strong institutional and legal framework with a solid governance mechanism for effective disaster management in the country. Finally, effective information management system; robust strategic plan and its implementation, effective communication mechanism, effective logistics and emergency management etc. all could make a successful disaster management system.

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Chapter 17

Royal Touch to Malaysian Democracy

Muhammed Murat Öymez¹

1.Introduction

Compared to neighboring countries that have suffered military coups and instability, such as Indonesia, Thailand, and the Philippines, the Malaysian Federation has shown a stable political structure. However, it is essential not to keep the political structures transferred from the past to the present off the agenda and the political and social structures of each country. In this sense, it is seen that the process that led Malaysia to independence in 1957 corresponded to a relatively late period compared to the independence processes of the countries mentioned above. The delay will be a Malay trait: Malaysia, which is a democratic Islamic country, has been lately faced with the motto 'equality' (egalite) of the last two centuries. Although Chinese and Indian ethnic citizens living in the country, who make up 45 percent of the population, appear to be legally equal, they are less equal than Bumiputras (sons of soil namely Malays), implicitly by the state's economic policies.

At this point, it is worth remembering that after World War II, or the Pacific War as it was called in August 1945, political negotiations that began with British colonial rule brought independence to Malay territory nearly 12 years later, on August 31, 1957. It can be told that the effect of the negotiations with British colonial rule starting in 1945 on political stability then primarily economic, after the maturation, brought independence to the Malay Peninsula. This stability comes with 59 years of power, which existed as a shift at the negotiating table with the British but made its name with the leadership of the National Alliance after independence.¹ In the intervening period, Malaysia has been working for national unity while under the impact of the Cold War closely on the territory of Southeast Asia, including regional troops. It can be even said that it led them. Tunku Abdul Rahman, the first prime minister to hold talks with the British and is also considered the founding father of the country, is the one who brought up the Assembly of Southeast Asia (ASA), which constitutes the nucleus of ASEAN. It must be stated that the same Tunku Abdul Rahman led for establishing the Organization of Islamic Cooperation (OIC). Of course, the ASA's establishment should not be seen as the 'creative policies' of a Malay politician but due to the characteristics of the Cold War years. In this sense, the process that began with the Philippines and Thailand was linked to create a bloc against the political and social influence of communism in the region. Another important political project of Tunku Abdul Rahman was the creation of the Malaysian Federation in the

¹ Australian Government, Department of Foreign Affairs and Trade.
<https://www.dfat.gov.au/publications/countries-economies-and-regions/60th-anniversary-australia-malaysia/60-years-australia-in-malaysia/chapter1-the-pacific-war.html>. Retrieved on April 17, 2021.

early 1960s, merging with the Malay Federation of Singapore and the Sabah and Sarawak regions of Borneo Island.²

Tunku Abdul Rahman's efforts were on the agenda in terms of regional cooperation and ensuring social peace and security in this new country, which includes various ethnic structures. Malaysians of Chinese and Indian descent have pursued a leadership that respects social peace in achieving an ordinary 'nation consciousness' with Muslim Malays. Although not as much as United Malay National Organization (UMNO) founder Dato Onn bin Jaafar's request³ for non-Muslim Malay Chinese and Indian origins to become members and policymakers of UMNO, Tunku Abdul Rahman is seen as supported by these ethnicities in socio-cultural and economic studies. In response to this support, Malay Muslims' reactiveness was manifested in the form of a social uprising on May 13, 1969,⁴ while Prime Minister Tunku Abdul Rahman, who led the process, was dismissed by the 'extraordinary government' that served for nearly a year and a half.⁵

The '70s were a struggle to get through the 1969 crisis. Malaysia witnessed the second prime minister's, namely Rezak bin Hussein's priority effort for rural development, followed by its consolidation under Hussein bin Onn's prime ministership.⁶ The 1980s marked the beginning of Malaysia's economic growth, which was articulated in global neo-liberal policies. During this period, it is possible to track down Dr. Mahathir Muhammed, known to have an aggressive nature both as a personality and in the politics he pursues. Dr. Mahathir stated in a speech that the country attributed to him partially accepted the title of 'Father of Modern Malaysia',⁷ that the prime ministers before him had started on economic growth, and that he was the continuation of this. Economic development, especially during this period, should be considered in historical and regional relations rather than a Malaysian miracle.

² Oh JCH. (1967). The Federation of Malaysia: An Experiment in Nation-Building. *The American Journal of Economics and Sociology*, 26/4:425-437.

³ Britannica, T. Editors of Encyclopaedia. "Dato' Onn bin Jaafar." *Encyclopedia Britannica*. <https://www.britannica.com/biography/Dato-Onn-bin-Jaafar>. Retrieved on May 02, 2021.

⁴ Soong, KK. Time to declassify the secrets of May 13. *Free Malaysia Today*. <https://www.freemalaysiatoday.com/category/opinion/2019/05/12/time-to-declassify-the-secrets-of-may-13/>. Retrieved on May 02, 2021.

⁵ Soong, KK. Time to declassify the secrets of May 13. *Free Malaysia Today*. <https://www.freemalaysiatoday.com/category/opinion/2019/05/12/time-to-declassify-the-secrets-of-may-13/>. Retrieved on May 02, 2021.

⁶ Miyong, S., Raja SS. (2019). The Foundational Decades Of Malaysia-South Korea Economic Relations 1960-1981. *International Journal of East Asian Studies*, 8/1:80-98

⁷ Seng, ATL. Tun M, Father of Modern Malaysia. *New Straits Times*. <https://www.nst.com.my/lifestyle/sunday-vibes/2018/06/380669/tun-m-father-modern-malaysia>. Retrieved on May 12, 2021.

Another process that began with Dr. Mahathir's departure in 2003 deserves to be examined as a period in itself. In 2004, Abdullah Ahmed Badawi revealed that from 2009 to 2018, the establishment of the prime minister's national unity, which Najib bin Rezak maintained, was underway. However, in May 2018, with the considerable support of Anwar Ibrahim, the invincible defender of equality, Mahathir Muhammed, who came back to power at the age of 93, initiated profound changes and transformations in Malaysia. Mahathir, who said he would hand over power to Anwar two years later, in 2020, unexpectedly submitted his resignation to the Sultan, just after holding some secret and unsuccessful talks with head of state and some of the members of Parliament from opposition.⁸ The Malaysian Sultan played an active role in forming the new government.⁹ He brought together Dr. Mahathir Muhammed's right-hand man Muhyiddin Yassin and Anwar Ibrahim's right-hand man Azmin Ali to create a new alliance and announced Muhyiddin Yassin as the new prime minister. For some, it was a civilian coup.¹⁰ The discreet statement that non-parliamentary initiatives would harm the country's democracy came from Syed Saddiq, a young politician backed by prime minister Dr. Mahathir Muhammed who served as minister of youth and sports in the Mahathir's Government.¹¹ At this point it is better to remember Lijphart's view on Monarchs role in democracies.

"In terms of basic democratic principles, a disadvantage is that monarchs are not entirely powerless. In parliamentary systems, they generally retain the right to appoint the prime minister. This is not a significant function when there is an uneasy preference for a prime ministerial candidate. Still, when there is a sudden death or resignation, or when the parties in a multiparty parliament cannot reach an agreement, the monarch's influence on the eventual choice of a prime minister may be far from negligible."¹²

⁸ AlJazeera News. Malaysia's Mahathir resigns but is asked to stay as interim PM. <https://www.aljazeera.com/news/2020/2/24/malysias-mahathir-resigns-but-is-asked-to-stay-as-interim-pm>. Retrieved on May 20, 2021.

⁹ Ananthalakshmi, A, Latiff R. Malaysia's king wins plaudits during political storm. *Reuters*.

<https://www.reuters.com/article/uk-malaysia-politics-royals-idUKKBN27C1LG>. Retrieved on May 24, 2021.

¹⁰ Head J. How Malaysia's government collapsed in two years. *BBC News Asia*.

<https://www.bbc.com/news/world-asia-51716474>. Retrieved on May 24, 2021.

¹¹ Today Online. Opposition in Malaysia labels Muhyiddin's emergency announcement a political move that endangers democracy. <https://www.todayonline.com/world/opposition-malaysia-labels-muhyiddins-emergency-announcement-political-move-endangers>. Retrieved on May 25, 2021

¹² Lijphart, A. (2012). *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries* Second Ed. Yale University Press, 128.

Again, is Lijphart's disadvantage a disadvantage that he is not entirely powerless? So, is this change an extra-parliamentary intervention or a touch within the democratic system that one hand considers vital for the course of the state and the nation? In the first chapter, we will treat Malay Supremacy as a matter of Government and state. Then a review of the royal touch to Malaysian Democracy will be evaluated.

2.Malay Supremacy as a State Matter

There is no doubt that the political traffic within the ruling Coalition of Hope and among the opposition parties was an attempt to prevent Anwar Ibrahim as prime minister and, for now, appears to have failed. The development, which some have voiced as 'Malay unity is being established,'¹³ seems to result from the explicit and de facto voice of non-parliamentary actors and demands, despite the parliament chosen by the people. But is it that simple? The current parliament gave a vote of confidence to a member of parliament appointed by the head of state, bringing him to the prime ministership. Is it whether the monarchy, which is the head of state, is arbitrarily active in politics, or is it that existing politicians are drawn into politics through personal interests and Bumiputra privileges, and other issues?

After World War II, the British colonial Government agreed on specific terms to grant 'independence' to Malay society and minorities in the region in the face of developments, despite its desire to renew its dominance on the Malay Peninsula. A significant part of these conditions is the citizenship of minorities of Chinese and Indian descent. The independence of 1957 was the decision to link Sabah, Sarawak, and Brunei on Borneo Island, which was adopted by the British mandate, and Singapore Island, at the southernmost tip of the Malay Peninsula, to the Malaya Federation.¹⁴

Between 1957 and 1963, it was not acted with the idea that things worked well in the Malaya Federation and that the addition of three regions that had not yet been decided to come to this 'successful' system would increase this success. Before and even after independence in 1957, it is seen that there are different demands of the 'traditional religious' oriented people in the region, which is the majority of the Chinese minority, such as Penang Island, and in the region with historical ties to Patanian Muslims, such as Kelantan. The people of Penang, also known as the 'Chinese of Penang Island,' are delighted with the process that has

¹³ Teoh S. Split with PM Muhyiddin no threat to Malay unity: Umno. *The Straits Times*.

<https://www.straitstimes.com/asia/se-asia/split-with-pm-muhyiddin-no-threat-to-malay-unity-umno>. Retrieved on May 27, 2021.

¹⁴ Tarling N. (1989). Malaya in British History. *Journal of the Malaysian Branch of the Royal Asiatic Society*, 62/1: 11-20.

made them connected to the British Kingdom under the name *Straits Settlements*, that is, the citizens of the British Queen, and do not intend to give up.¹⁵ The Kelantan region, on the other hand, does not want to be part of the political plan of the British colonial administration on the Peninsula, which it considers 'different' with its historical dimension, as much as its traditional Islamic approach, which has continued to exist strongly to this day.¹⁶

As well as this regional disintegration, what happened in obtaining the 'citizenship' status of the Chinese and Indian minorities spreading throughout the Peninsula was the basis for social unrest among these minorities. On the other hand, in the eyes of Malay Muslims, who constituted the 'majority', it was a situation that alternated between the calculation of what kind of economic development they could achieve as the main elements of the homeland (*Bumiputra*) and the scale of conflict and reconciliation.¹⁷ Of course, speaking of bumiputra, the lack of political or social demands of the Orang Asli the even more fundamental social group of this land, which lacks the opportunity and opportunity to express themselves, is also an issue that deserves to be addressed on its own.

While this was the case on the Malay Peninsula, merging with Sabah, Sarawak, and Singapore came up in the early 1960s. This development was of existential importance to the Malay Federation, such as the reassessment and restructuring of 'population policies.' In the face of the Malay Muslim population's 'critical' situation in front of minorities of Chinese and Indian descent, the 'citizenship' process was operated as a gradual process. In contrast, a population flow was needed to financially support the concept of 'bumiputra' of Malay Muslims. In this sense, the presence of ethnic elements in Sabah and Sarawak was of particular importance to the administration of the Malay Federation.¹⁸

The regional and international aspect of this process was also too important to ignore. For example, both for Britain, which wants to expel its political presence in the region as an economic/political burden, and for the creation of a pillar of the regional bloc against the threat of 'communism,' which is a dynamic structure in the region and is notable for its propensity to spread, the goal of creating a pillar of the regional bloc—which was more closely and related to the global policies of the United States in the bipolar world of the period—is a supportive nature.

¹⁵ Britannica, T. Editors of Encyclopaedia. "Straits Settlements." *Encyclopedia Britannica*. <https://www.britannica.com/place/Straits-Settlements>. Retrieved on May 27, 2021.

¹⁶ Su-ming C. (1965). Kelantan and Trengganu, 1909-1939. *Journal of the Malaysian Branch of the Royal Asiatic Society*, 38/1: 159-198.

¹⁷ Sundaram JK. (1989). Malaysia's new economic policy and national unity. *Third World Quarterly*, 11/4: 36-53.

¹⁸ Oh JCH. (1967). The Federation of Malaysia: An Experiment in Nation-Building. *The American Journal of Economics and Sociology*, 26/4:425-437.

Singapore took another step towards 'historic success'. At the same time, Brunei 'Sultanate' insists on not taking part in this process; its ability to convince the British administration to do so – probably by some agreements – can also be referred to as a historic 'success' for the Sultanate. In this context, the situation in Singapore was of particular importance. Following the British decision to withdraw from the region, it emerged as another structure that would form the Federation, since throughout history, the Island of Singapore, which is dependent on the Malay Peninsula in terms of both human and financial resources, was not envisaged to be maintained on its own. As well as Singapore's participation, its departure from the Federation in as little as two years has been the subject of significant work.¹⁹

It was enough to make you question how far this relationship could work, as political leaders representing Malay Muslims who handled the phenomenon of 'bumiputra' on the Peninsula 'at a desk' with the British. Instead of Lee Kuan Yew's Malaysianism politics and social structure with the inclusion of Singapore in 1963, who suggested the phenomenon of "Malaysians."²⁰ Moreover, Singapore's apparent threat to the Malay Muslim population, whose Chinese population was already in a critical population balance, was another issue that the Kuala Lumpur administration focused on with precision.

We can list many questions such as how Malay Muslims in the traditional 9 Malay Sultanates of the Malay Peninsula relate, perceive, and social and cultural relations with the communities that make up the Sabah and Sarawak ethnicities. However, rather than the answers to these questions, it is more prominent that the peoples of Sabah and Sarawak have contributed to the political entity that has governed the Malaysian Federation so far, and especially in the last two elections, with the state of 'vote store.' The Malay Muslims of the Peninsula do not feel a sense of 'national unity' towards these two provinces, which make up the west and north of Borneo Island on the other side of the China Sea. Then the question of how this union came about can be rightly asked. There is no other element here than a political pragmatism that we can argue is British doctrine. In this sense, rather than the elements that unite the peoples in common, the main component of Malay Peninsula politics is the dimensions of the agreement between the mind of the United National Malay Organization (UMNO) and the local political leaders in Sabah and Sarawak that led to the formation of this Federation.²¹

¹⁹ Oh JCH. (1967). The Federation of Malaysia: An Experiment in Nation-Building. *The American Journal of Economics and Sociology*, 26/4:425-437.

²⁰ National Archives of Singapore (NAS), Text of Mr. Lee Kuan Yew's Speech at the Malaysian Solidarity Convention at the National Theatre on 6th June, 1965.
<https://www.nas.gov.sg/archivesonline/data/pdfdoc/lky19650606.pdf>. Retrieved on May 28, 2021.

²¹ Oh JCH. (1967). The Federation of Malaysia: An Experiment in Nation-Building. *The American Journal of Economics and Sociology*, 26/4: 425-437.

At this point, it is enough to remember the criticisms of the central administration from time to time by the people. While even the nine provinces that constitute the traditional sultanates of this state, which includes a Federation in its name, cannot be gathered under one roof. It would not be an exaggeration to say that the only element linking these two provinces to the 'center' was the agreements of Malay political leaders of the period in the early 1960s with local political leaders in these two regions. They were waiting for the phenomenon of 'national unity' to emerge for the communities that have lived for centuries with their unique and different language, culture, and even religious constructions in Sabah and Sarawak means not understanding the political relations that have prevailed in the region for centuries. These people were in charge of the Johor Sultanate / Province, which played a decisive role in the process leading up to the formation of the Malaya Federation in 1957. Even the exits can be interpreted in the sense that we can leave the Federation.²²

It is possible to compare the eco-political balance of the Malaysian Federation in the 1960s with the present. However, this is the subject of another research. Therefore, today, Sabah and Sarawak are of much greater political importance to the central government than they were yesterday in the context of the current national political developments today. This importance is also well known by the politicians who are from Sabah and Sarawak. While this national day reminds us of yesterday's relations mentioned above, the political and social changes that have emerged over time suggest that these two states will be on the agenda again in the coming period.²³

In other words, identities and geographical difficulties in Malay politics are based on some gradual problems and their sensitive solutions. Therefore, it is possible to read incompletely the opposition of the Sultan who is the head of the state and the head of the Government, to the regulation of a political structure based solely on democratic ideals, given how delicate balances the Prime Minister and cabinet bring the country together and hold it. Here, equality, which is one of the elements that destroyed even an empire like the Ottoman Empire, and perhaps most importantly, economic equality, should also be addressed, as does Anwar Ibrahim, the symbol of the equality and reform movement.

Anwar Ibrahim came close to becoming prime minister in both 1998 and 2018. Dr. Mahathir, who we can say represents a structural element in the political life of Anwar Ibrahim, made the right decision in 2018, as much as he made the right decision in 1981 when he recruited this promising young intellectual. Mahathir provided his social support with Anwar in both cases, while Anwar lost at the last minute in both alliances. However, Dr. Mahathir, one of the determinants of

²² Kaur A. (1998). *Economic Change in East Malaysia*. Macmillan Press, xxi.

²³ Bociaga R. BorneoExit: Independence for East Malaysia?. *The Diplomat*.

<https://thediplomat.com/2020/12/borneoexit-independence-for-east-malaysia/>. Retrieved on June 04, 2021.

Malaysian political life, is trying to explain why he should not be prime minister, despite the political caliber and social support of Anwar Ibrahim and even his international recognition. In a statement, Dr. Mahathir explained why Anwar Ibrahim could not become prime minister. In other words, with this statement, Dr. Mahathir has shown that he has not been left behind to reveal a well-known truth with a very civilized 'political' courage. But he does so in a limited way, linking it to economic management²⁴. In another statement, Dr. Mahathir announced that he did not support Anwar Ibrahim's prime-ministership because of his decisions as finance minister during the Southeast Asian crisis in 1997.²⁵

Dr. Mahathir Muhammed, who became Prime Minister for the first time in 1981, will have no difficulty choosing Anwar Ibrahim among the young leaders. Anwar Ibrahim, who was the concrete representative of the phenomenon of Islamism, was reciprocated in Malaysian society and its influence all over the world at the time. Anwar was also known and easily recognizable with his leadership qualities, intellectual capacity, and political presence leaning on minorities of Chinese and Indian origin. Dr. Mahathir did not miss the chance to catch a 'charismatic' young Malay leader like Anwar.

Then, the political life of Anwar Ibrahim began its downfall surprisingly in 1998 when he reached to deputy prime ministership. Many writers expressed opinions about what happened at that time. Some have cited power struggles within UMNO, and others have cited the 1997-8 Southeast Asian economic crisis. In the end, however, there is no doubt that Anwar Ibrahim is the beginning of a new era in his individual life and political life. Anwar, the most powerful figure in the Malay opposition after 1998, advocates full equality between ethnicities. He had the opportunity to practice the idealism of his youth in the process of various ministries in which he took responsibility. This egalitarian approach is the only thing that prevents their 'Prime Ministership' in both 1998 and 2018. The Malay state mind and the head of this state are actively opposed to this situation.

Anwar Ibrahim considered the whipping boy of Malaysian domestic politics, leads a not ethnically oriented party like the country's other political parties, but rather a protest organization that attracts people of all ethnicities. Dato Onn bin Jaafar, who, about half a century ago, rejected the development of an "ethnic party" by acting on the needs of the country's social structure and, as an alternative, recruiting members from other ethnic components to UMNO, carries the political heritage. In a 2015

²⁴ Hassan H. "I'm Not The Reason Anwar Hasn't Become PM," Says Dr M. *The Rakyat Post*. <https://www.therakyatpost.com/2020/11/21/im-not-the-reason-anwar-hasnt-become-pm-says-dr-m/>. Retrieved on May 28, 2021.

²⁵ The Straits Times, Dr Mahathir says Anwar would not be Malaysian PM with or without him. <https://www.straitstimes.com/asia/se-asia/dr-mahathir-says-anwar-would-not-be-malaysian-pm-with-or-without-him>. Retrieved on June 04, 2021.

interview, Anwar Ibrahim stressed the intellectual connection between him and Dato Onn bin Jaafar:

"Dato Onn bin Jaafar was the founding member of UMNO... As it is known, UMNO is the political structure that the Government is fighting for now. I have great respect for Dato Onn. First of all, it comes from a circle close to the Palace, but its politics were based on the 'people' discourse. He was compassionate about protecting the rights of the people. And Dato Onn is the pioneer of a consciousness formation against colonial rule and against 'feudalism.' He is a politician who demonstrated this when he was a Prime Minister under the Sultan. Dato Onn advocated independence from colonial rule and, at the same time, liberation from the feudal mindset of the Malays. Demonstrating the discourse of independence in these lands, which was called Malaya, required the support of the Malays, who were the majority, and the Indians and Chinese, who were in the minority position and lived here for generations. Despite this political philosophy brought up by Dato Onn, he had to leave the party after UMNO rejected it. However, after years, I am trying to realize this policy initiated by Dato Onn to achieve real freedom and clean the country from corruption, which is, for a change, by supporting all different circles of Malaysian society, especially the lower and middle classes."²⁶

Anwar Ibrahim's stance is on the side of full equality for all citizens. In the case of Bumiputra, they, like every other contemporary nation-state in the world, advocate full equality. Anwar Ibrahim points out that the Malay Muslims would lead the way for a new structure based on the requirements of people and social sectors rather than the phenomena of race-based positive discrimination against them.

3.Royal Touch

The question arises of whether democracy exists for the state or the state. So, where does Anwar's egalitarianism take place as a matter of national survival when the founding state mind, even the founding state spirit (*esprit de corps*), is based on Bumiputra, Malay Supremacy? Well, is the Sultan betraying democracy as a non-

²⁶ Ozay, M. Interview with Anwar Ibrahim. *Southeast Asian Studies*. <https://guneydoguasyacalismalari.com/2015/02/10/malezya-muhalefet-lideri-enver-ibrahimle-roportaj-interview-with-anwar-ibrahim/>. Retrieved on May 24, 2021.

political element? Or is he protecting the state's National Survival from some political choices for the state order he is a protector of?

As political chaos continues in Malaysia, the new leadership has moved to the federal Sultan surprisingly. On Friday, October 23, 2020, a week earlier, Muhyiddin Yasin, prime minister of the current *Perikatan Nasional* (PN-National Alliance) government, met with the federal Sultan Abdullah Ri'ayatuddin and demanded a state of emergency to effectively combat the increasing cases of Covid-19.²⁷ The developments following the rejection of this request by the council of sultans on Sunday (October 25) have brought the federal Sultan to an effective decision-making body in the country's politics. The decision of the board of sultans indicated a situation conducive to being interpreted by Muhyiddin Yasin as a vote of confidence by the Palace and its surroundings.

This request, which was met with a great reaction in political circles and public opinion, was also rejected by the federal Sultan, reminding him of a period in the country's modern history in May 1969 that was not remembered. In the previous section, this issue and Malay politics were mentioned in terms of the influence of the founding and sustaining mind.

The fact that Covid-19 was used as an excuse to answer no from the Palace to Muhyiddin Yasin, who aimed to control politics and bureaucracy, especially in parliament, caused it to be considered the event of an emergency end of Government in the political world. However, with the federal Sultan's no decision, the current PN government's call for the 2021 budget negotiations to be submitted to parliament on November 6 to be "supported without loss by all political parties" was also contradictory.²⁸ Therefore, it is clear that Muhyiddin Yasin, who is preparing to resign, did not make this decision with his wait-and-see policy. On the other hand, the federal Sultan's statement emphasized that the current political environment is not a place for a change of Government, calling for the support of the current PN government by all political parties. While the federal Sultan's statement is a 'kind' warning, the demand that some important ministries, especially Muhyiddin Yasin and the deputy prime minister, particularly the UMNO, the *Perikatan Nasional* Government's biggest party, be given to UMNO remains on the agenda.²⁹

Muhyiddin Yasin, appointed prime minister by the federal Sultan Abdullah the II on March 1, 2020, appears to have managed to ensure the continuation of his National

²⁷ Reuters. Malaysian PM says cabinet to further discuss king's rejection of emergency request. <https://www.reuters.com/article/uk-malaysia-politics-muhyiddin/malaysian-pm-says-cabinet-to-further-discuss-kings-rejection-of-emergency-request-idUKKBN27A0PN>. Retrieved on June 04, 2021.

²⁸ Sipalan, J. Latiff R. Malaysia's king rejects emergency rule in blow to PM Muhyiddin. *Reuters*. <https://www.reuters.com/article/uk-malaysia-politics-palace-idUKKBN27A0EA>. Retrieved on June 04, 2021.

²⁹ Sipalan, J. Latiff R. Malaysia's king rejects emergency rule in blow to PM Muhyiddin. *Reuters*. <https://www.reuters.com/article/uk-malaysia-politics-palace-idUKKBN27A0EA>. Retrieved on June 04, 2021.

Alliance-PN government a majority of several lawmakers in the federal parliament so far. The PN government consists of 12 different political parties, indicating how difficult Muhyiddin Yasin is in political chess. The most vital partner of this alliance is the United Malay National Organization (UMNO), represented by 39 lawmakers in parliament. Since March 1, the rhetoric that UMNO has not responded to its political demands with the necessary response of prime minister Muhyiddin Yasin has been the subject of developments that will put the prime minister and the Government in a difficult position.

The first part of the statement from the Palace meant no to Muhyiddin Yasin, while the second part can be understood as a "don't go, stay" message. The goal of the federal Sultan's call for unscathed support is undoubtedly to block the 2021 budget negotiations of the bloc formed by Anwar Ibrahim and to bring down the government. Anwar Ibrahim did not attempt to confront the Sultan in his statement on September 23, 2020 or after the federal Sultan's announcement on October 25, 2020. The royal touching of Sultan Abdullah the Second set apart the support of the Anwar Ibrahim from the members of parliaments from UMNO. On the contrary, he continues to draw attention to the need for clean politics and a government to deliver the reforms demanded by the people, cleverly interpreting the federal Sultan's rhetoric in calling for the support of all parties, both in the meeting and in the budget negotiations. The federal Sultan's emphasis on public welfare and national development and the support of all politicians in this regard is the basis of the PH government's reform program, which came to power after the 2018 elections.³⁰ When the public welfare and national development mentioned the New Economic Policy-NEP which covers the Malay ethnic groups against Chinese and Indian ethnic groups comes to mind. This message was chosen carefully and indirectly delivered to Anwar.

The fact that Anwar Ibrahim's declaration that "I have secured a majority in the federal parliament" was left to creep rather than be closely followed by the federal Sultan manifested as another obstacle to Anwar Ibrahim's premiership. One of the indicators of this was that the request for a meeting requested by Anwar Ibrahim was delayed considerably, citing the health problem of the federal Sultan.³¹

In the intervening period, the closed-door talks, which would not challenge the resignation of Prime Minister Muhyiddin Yasin as prime minister and therefore would not end the PN government, resulted in the withdrawal of support for Anwar Ibrahim at UMNO. In this process, it is necessary to say that, for example, various

³⁰ Reuters. Malaysia's king rejects PM Muhyiddin's request to impose emergency rule.

<https://www.reuters.com/article/us-malaysia-politics-palace-idUSKBN27A0E2>. Retrieved on June 05, 2021.

³¹ Hassan H. Anwar says he has strong majority to form new govt. *The Straits Times*.

<https://www.straitstimes.com/asia/se-asia/anwar-says-he-has-strong-majority-to-form-new-govt>. Retrieved on June 05, 2021.

political parties, such as UMNO, have witnessed the reactions of active non-political actors towards the formation of new coalitions and their efforts to direct politics to determine their interests. At this point, it can be read very clearly, especially in the developments of the last year, that the federal Sultan and the surrounding structures have attempted to do so.

4. Conclusion

Lijphart sees the monarchies' complete powerlessness as a disadvantage. However, for over a year, Malaysia's political crisis may be an excellent example of this situation to be examined. Is it a disadvantage³² that, as Lijphart says, the monarchy or the head of state is entirely powerless for head Government?

To understand what is happening in Malaysia, it is necessary to go back several years, May 2018. The royal pardon of Anwar Ibrahim by the then federal Sultan, Muhammed the V, was an example of the abandonment of the established political mind's approach after the general election.³³ What we mean here, of course, is not the extraordinariness of the Sultan's decision. The federal Sultan is a symbolic leader who is determined by law to sign these and similar decisions. However, it would be naïve to explain that a politician like Anwar Ibrahim wants to be excluded from politics by certain circles of the country only by internal political interests within UMNO. At the time, Muhammad V's decision was a contribution to the country's justice system while at the same time supporting and endorsing the democratic election of the people who brought the Coalition of Hope to power.

There is no doubt that this development was a kind of threat to those who did not desire anti-democracy and expansionist political tendencies, whose name is associated with corruption. When it is remembered that Anwar Ibrahim's court and prison processes were based on a series of injustices and plots, it can be considered that an ordinary and necessary process was operated by the head of state, Muhammed the V.

The Sultan's decision deserves to be addressed on how it is perceived by the circles that built the political and social structure in the country on their core interests, especially other symbolic leaders at the time. Because today, it is witnessed that the same circles are acting together in one way or another. In Malaysia, Sultan Muhammed the V was the Sultan of a province like Kelantan, a stronghold of Islamist Politics in the country. Muhammed the V's withdrawal from the federal Sultanate was significant in several respects. There is no doubt that the fact that an active-duty

³² Lijphart, A. (2012). *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries* Second Ed. Yale University Press, 128.

³³ Shukry, A. Chong, PK. Malaysia's King to Pardon Anwar Immediately, Mahathir Says. *Bloomberg*. <https://www.bloomberg.com/news/articles/2018-05-11/mahathir-says-malaysia-king-willing-to-pardon-anwar-immediately>

sultan stepped down from his post and replaced him with someone else has caused great confusion in the country, which is notable for its devotion to its traditions. Although it was said that the role of the monarchy was symbolic and had no meaning in the country's politics, the existence of the monarchy remained decisive in some areas. So much so that this development deserves to be considered as the second major change after significant growth, such as the change of power for the first time since independence (1957) in the 14th general elections held on May 9 last year. Since the 50th anniversary of the bloody May 13 incident of the country's history, the first such radical changes have happened and beginning with the resignation of Muhammad the V, monarchs are extremely active in Malaysian politics. Abdullah the II, who took throne after Muhammed the V, have being notable from Mahathir's resignation, including the formation of the new government, to the Covid-19 pandemic that affects all the World. For now, Abdullah the Second acts like not only head of state but also both head of government. However, historic experiences showed us when the monarchs played active role in politics, they could not stay in power too long and this will of activeness brought them to the end of their rule.

"Monarchs have remained in power where the reigning family has willingly withdrawn from a politically active rule. Reciprocally, monarchies have fallen when the monarch has sought to continue to assert political power."³⁴

The Monarchs in Malaysia joined the race for power in domestic politics as discussed above. Like gaining its independence too late, the country's politicians and intellectuals discusses the concept of equality with a great delay. As Rose and Kavanagh claimed, would monarch's active role in Malaysia cause them to lose their power, like any other monarch in the past? Or can they retain the control they have earned, so far? Thanks to the pandemic it seems there is more time to learn the answers. Sooner or later the time will tell us the answer to these questions anyway.

³⁴ Rose, Richard, and Dennis Kavanagh. 1976. "The Monarchy in Contemporary Political Culture." *Comparative Politics* 8, no. 4 (July): 548–76.

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Chapter 18

Comparison of the Employment Opportunities and Threats Posed by the Coordinated Market Economies: The Example of Germany

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Introduction

The Varieties of Capitalism approach is an attempt to understand the differences in working styles and freedom levels of national economies in a globalised, fast moving world. As in the present day the world is globalised, highly dynamic and continuously changing, it is becoming more difficult for states to make interventions on their economic systems to maintain national competitiveness. Governments no longer have enough control power on company decisions through using industrial planning or state banking. Instead, they focus on facilitating the conditions for local firms to gain competitive advantage in the international markets. Then the state's economy gets stronger in today's world. Because of these reasons, it is appropriate to adopt more micro focus and analyse the company behaviours in order to understand dynamics of capitalist approaches. The critical factors that orient the economy, and therefore needed to be analysed are; the type of skills that companies need, workforce cooperation that they have, technological potentials and the strategies which are used to gain financial support. Additionally, it's also important to consider the institutions of the states which constitute the working environment of the companies. These include established education and training systems, regulated labour market types, technologic transfer institutions and corporate governance systems of companies (Soskice, 2005).

Comparison of the Liberal and Coordinated Market Economies:

Advanced economies are considered as two main different types of national economies that constitute ideal types (Hall and Soskice, 2009). The first one is called liberal market economies composed of Anglo-Saxon countries like USA, UK and Canada including Ireland and Israel (Soskice, 2005). Their training and education systems mainly focus on improving general skills of the people (Hall and Soskice, 2001). The companies in these types of economies generally follow short term focused corporate governance systems and the markets are highly competitive in terms of technological systems. However, their welfare state regulations are considerably weak and this is followed by low levels of unemployment and employment protection. Having such conditions causes high levels of recruit and lay off rates and employee transfers among companies (Estevez-Abe, Iversen and Soskice, 2001). In these circumstances, companies focus more on radical innovation and risk taking approaches in order to remain competitive in the open world economy (Vitols, 2001).

On the other hand, the second types of economies are called coordinated market economies. The education, training and employment system is much more regulated in these economies compared to liberal market economies. What is

more, company owners mainly focus on long term strategies and corporate governance systems allow more patient capitals (Hall and Soskice, 2009; Soskice, 2005). In these types of economies, there is coordinated wage bargaining to prevent inequalities in terms of income. Additionally, welfare states and employee well-being is playing a crucial role. Hence, the employment and unemployment protection rates are higher in contrast to liberal market economies (Estevez-Abe et al, 2001; Soskice, 2005). Under these conditions, companies focus more on incremental innovation and long term strategies through developing specific skills of employees to obtain competitive advantage in a globalised world (Hall and Soskice, 2001).

In the second type of capitalist economies the companies' product market strategies determine the required skill types of workforce (Soskice, 1994). Therefore the workers need to invest in related specific skills. In fact, the intensity of such skills in these countries has contributed many for firms to have a comparative advantage in the international area (Soskice, 2005). On the contrary, the companies which perform in liberal market economies engage in different product strategies that need general skills such as university or master qualifications. This type of organising also brings competitive advantages through radical innovation (Vitols, 2001).

According to Estevez-Abe and her associates (2001) Germany, which has a coordinated market economy, uses a Hybrid product market strategy which is efficacious for producing high quality and large quantities of custom made products. Moreover, this hybrid product market strategy requires highly trained labour with firm specific skills (Streeck, 1992). However, from a workers point of view, it is risky to invest in firm specific skills as such abilities are only applicable for the particular firm. More to the point, when compared with liberal markets such a specific focus leads to weaker career agility. In fact, most skills are only improved and maintained through using, refreshing, updating and focusing on a particular skill that will degenerate other marketable skills of the employees. Hence, in this economic context, employees require some sort of protection, which includes job security and assurance for possible job loss, to invest in these specific firm skills for a long period (Estevez-Abe et al., 2006).

On the other hand, in countries which have adopted liberal market economies, such as the UK and the USA, there is a weak link between companies, government and workforce compared to coordinated market economies (Estevez-Abe et al, 2001). In this sense as companies adopt product market strategies that often require general and flexible skills, there is a considerably low level of employment and unemployment protection in such states. In addition, because companies generally focus on short term profits and look for radical innovation,

there is also a high level of hire and redundancy rates which cause intense flow of workforce among companies in the market.

In liberal market economies, companies look for employee productivity for radical innovation and success (Hall and Soskice, 2001). In other words, while high productivity workers are adequately rewarded, low-performing or skilled ones are exposed to the opposite. Therefore, there is often a high level of inequality between classes (Soskice, 2005). Although portable general skills substitute for social protection, this is generally for middle or high class workers. In addition, the absence of protection of the employees and unemployed people and collective bargaining as well as having low level of welfare state opportunities create difficulties for less-skilled people in liberal market economies (Mandel and Shalev, 2009; Soskice, 2005).

In contrast, compared to Liberal market economies in Germany, there is more egalitarian distribution of earnings because of the coordinated wage bargaining system. Through such system differences, incomes of the groups are prevented to be so high. It is also needed to be added that Germany not only have a more egalitarian distribution of income but also redistribute more through taxes and transfers (Soskice, 2005). Moreover, although less skilled people face limited opportunities in all situations, in coordinated market economies as Germany, there are protections for preventing modification of transfer payments and regulated employment conditions for all workforces. When it comes to education and training, in Germany and many other coordinated market economies, the education and training level of low skilled people is also higher compared to liberal market economy countries like the USA and the UK. As a result, these regulations in coordinated market economies create safer and more sufficient living conditions for low income groups. In fact, these people are better educated and trained. Besides, they are more secure and equally paid and benefit from redistribution in countries (Mandel and Shalev, 2009).

The comparison between the states that have liberal market economies and Coordinated market economies

	Liberal Economies	Coordinated Economies
Education for Employment	<i>General Skills</i>	<i>Firm Specific Skills</i>
Competitive Strategy	<i>Short Term Focused Corporate Governance</i>	<i>Long Term Focused Corporate Governance</i>
Innovation Type	<i>Mainly Radical Innovation</i>	<i>Mainly Incremental Innovation</i>
Employment Strategies	<i>Weak Employment and Unemployment Protection</i>	<i>Strong Employment and Unemployment Protection</i>
Employee Turnover	<i>High</i>	<i>Low</i>
Career Agility	<i>Low</i>	<i>High</i>

(Kaynak: Hall and Soskice, 2009)

The Nature of the Coordination: Apprenticeship System in Germany

In coordinated economies the existing institutions tend to support each other for the collective efficacy. Aoki (1994) introduced the “institutional complementarities” concept in order to underline the importance and effective results of mutual interdependence among key institutions of an economy. For instance, in Germany, there is high interrelation between government, companies and workers. As mentioned above, because economic improvement highly depends on firms’ comparative advantages, welfare states also foster employment and unemployment protection in order to convince the workforce to invest in firm specific skills (Estevez-Abe, Iversen, Soskice, 2001). As a consequence, for companies that focus on firm based skills oriented market strategies, employment and unemployment protection is crucial for being cost effective and competitive in globalised markets (Koike, 1994; Oashi and Tachibanaki, 1998; Mandel and Shalev, 2009)

Moreover, in Germany, there is a highly structured education system called apprenticeships which basically helps to channel German students into the internal labour market while helping companies to train their own firm specific future workers. Apprenticeships are a dual system which requires apprentices to receive training both from the firms and public vocational schools. This system not only enables the German students to gain both practical and theoretical skills but also enables successful students to easily settle in companies. The German school children invest in this system because it is the main pathway to enter internal skilled companies. What is more, if students are accepted by large German commercial companies, they will obtain considerably higher wages compared to the semi-skilled workforce. Besides, they will occupy skilled jobs for long tenures (Soskice, 1994).

Apprenticeships also provide benefits for the German companies which are included in this system. Firstly, the firms' production market strategies require specific firm skills. Hence, managers of these firms think that it is more advantageous to train students themselves so that successful students who match with company specific skill needs and the culture will remain in the company and work on related jobs (Soskice, 1994; Estevez-Abe et al., 2001). Moreover, the cost of training German students is compensated by the German government, students themselves and companies. Government provides the public education part and apprentices contribute thorough low admission salaries and companies pay for the company training (Soskice, 1994). As can be inferred, government institutions, unions, German students and companies work in cooperation for this apprenticeship system, and as a result of these mutual incentives, success of this system reflects in numbers. Indeed, statistics show that post apprenticeship retention rates, particularly in big companies, can go up to eighty percent (Buchterman, 1991).

However, the quality of apprenticeships is not at the same level in all sectors. Soskice (1994) divides sectors in Germany into two parts which are hand work and industrial/commercial sectors. The hand work sectors are constituted by small firms, such as restaurants, bakeries, garages etc. In such contexts most students have lower educational backgrounds compared to large firms in the institutional/commercial sectors. More to the point, statistics show that retention rates in hand work small companies are considerably lower than those industrial firms. Besides, some students tend to quit the sector and look for middle skilled jobs after apprenticeships. In other words, they are persuaded to work as secondary workers in big companies (Soskice, 1994). Thus, in light of these findings, it can be said that apprenticeships generate good results for large industrial companies and apprentices with good backgrounds. However, it is a question of whether the apprenticeship system works for every German student or company or industry.

Gender Discrimination Issue Lurking Behind an Effective Coordination System

In coordinated market economies mutually interrelated strong protection regimes, production market strategies and apprenticeships, besides providing competitive and comparative advantages, on the negative side can also cause inequalities. Varieties of capitalism perspective is particularly gender neutral. Therefore, the gender inequalities and differences are not considered in this approach.

As mentioned above, strong employment and unemployment protection reinforce potential workforce to invest in company specific skills and apprenticeship systems, and this works for the companies as well (Soskice, 1994). However, according to Estevez-Abe (2006) this apprenticeship system is inconvenient for women since employers of the firms which are involved in this system are likely to be rational and cost focused. Moreover, they are biased against women because there is already an existing pool of successful male students; therefore, the tendency of preferring females for company training remains low. As for employers, employees who continuously invest in related specific skills are crucial and in the case of maternity leave, employees tend to avoid recruiting women for work for efficiency problems and high costs. In fact, rational decision making requires this because managers have to manage temporary workforce inactivity as a result of maternity leaves. Another management burden is to reintegrate the workers that return for work and it's also costly to find another temporary employee who has the same specific skills and implement the task for the time being (Estevez-Abe, 2006; Becker, 1993). Therefore, these breaks those women have to take when they are pregnant in specific skill focused economies caused segregation between male and female workforce (Mandel and Shalev, 2009).

What is more, varieties of capitalism identify Scandinavian and Continental Europe as common and do not predict the differences between such areas. Although both regional countries adopted the coordinated market economy, Scandinavian ones created a public service market to encourage women to work with generous maternity leave options. Such states also support women to allocate more time for paid work (Mandel and Shalev, 2009). As a result, compared to continental Europe countries, like Germany, in Scandinavian countries, women labour force participation is considerably higher. However, it should be noted that the business communities of both continental Europe and Scandinavian countries continue to subsidise women for the private sectors (Soskice, 2005).

Moreover, According to Iversen and his associates (2005), this firm specific product strategies of companies and their mutually reinforcing relationships with welfare states also have an effect on divorce rates. In other words, women's segregation is high and women tend to fulfil all the care and house work in general, especially in continental European countries, like Germany. Such conditions increase women's dependency on their husbands and they may find themselves in a situation where they have to maintain marriage no matter what living conditions are. Infact, statistics support the idea that in countries where economies depend on specific skills and fewer opportunities for women to work,

divorce rates are also lower compared to ones that have less gender discrimination (Iversen, Rosenbluth and Soskice, 2005).

On the other hand, in Scandinavian countries, where public services and generous working conditions are provided for women, divorce rates are higher. As a result, Iversen and his associates (2005) interpret that the public sector and supportive policies of government give women more bargaining equalities with their husbands.

In contrast, in liberal market economies where general skills matter, there is no economic condition to prevent women from working in both public and private sectors as markets are relatively easier to leave or get jobs (Estevez-Abe, 2006). Thus, labour force participation is higher in liberal market economies. In fact, in such economies women can more easily compete with men for higher wages and are less likely to encounter the glass ceiling syndrome. As a result, because liberal market economies are more performance oriented it can be said that these countries' conditions for skilled women are more generous compared to coordinated market economies (Mandel and Shalev, 2009).

However, this situation in liberal market economies does not mean that every woman is in a better situation and has better opportunities compared to Germany as a coordinated market economy (Soskice, 2005). Although as Hall and Soskice (2001) in their *Varieties of Capitalism* approach explain that in liberal market economies, such as the UK and USA, general skilled workers are often preferred by employers and as Estevez-Abe(2006) outlines, women in a better situation, they fail to consider class differences. In liberal market economies, companies provide opportunities to only skilled women in order to reach their high performance targets (Mandel and Shalev, 2009). Yet, because there is a low level of protection and family policies, women in liberal market economies have no chance to obtain external support for reconciling both paid and unpaid work. What is more, the conditions and wages of low skilled women are also not controlled and protected by the states. Therefore, liberal market can only offer this class to low paid and unsecured jobs (Mandel and Shalev, 2009).

On the other hand, in coordinated market economies, low skilled women are in a better situation. The states provide protection to these low skilled women through social policy if they are workers and family policy if they are mothers. Particularly in social Democratic coordinated market economies, reasonably paid jobs are provided by the public service sector dominated by the state (Mandel and Shalev, 2009).

To conclude, the purpose of this study is to examine the employment opportunities and threats presented by coordinated market economies such as Germany. From this angle, it is important to first unearth the advantages and

disadvantages of coordinated market economies compared to the liberal market economies. At this point, varieties of capitalism theory provides a solid basis to examine both capitalist approaches. As the focus of this work is on coordinated market economies, it is salient to examine the mutual relationships among the organs of such social systems. In particular, this study considers the apprenticeship system in Germany and signifies that this system emerged as a result of the effective coordination among the main actors of the social structure and it is the core competence of such a coordinated economy. However, this study also aims to critically underline the disturbing bias behind the dynamics of coordinated economies. In this respect, according to the varieties of capitalism approach, another plus feature of countries with coordinated market economies, such as Germany, is that they have higher levels of welfare protection and lower inequalities compared to liberal market economies. Yet, this approach was gender neutral therefore the real limitation of gender inequality is overlooked and there is a considerable discrimination problem that female workers face in such states. In fact, profit-seeking company owners generally tend to employ male workers rather than female ones to avoid incurring the costs of maternity leave in jobs that require firm specific skills and long term commitment. As a result, compared to liberal market economies, such problems reduce women's participation in the labour market, especially in the German economy.

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Chapter 19

A Probe into the Development of Teaching Materials and Quality in Teaching Chinese as a Foreign Language in Türkiye

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Introduction

To guarantee and improve the teaching quality, teaching material is one of the three main factors. In China the existing Chinese language textbooks for foreigners are almost universal, which can't meet the demands of learners from different countries. It's become a priority for us to prepare and compile country-specific teaching materials for local Chinese language learners. When we prepare textbooks, we may take these specific measures like changing the Chinese language-based perspective, highlighting the usefulness and relevance of teaching material; penetrating moderately cultural factors, adopting the way of international cooperation, which can make the learning process easier and more efficient.

Since 2009 China Hanban organized professors and experts to prepare a series of country-specific textbooks. However, most of these materials were only a translation of the original textbooks into different languages. They are not much used in Turkey as I know. My paper will search some solution to the real country-specific Chinese language textbooks for Turkish learners.

An international symposium themed Country Specific Chinese Language Textbooks was held in December of 2009 at Xiamen University. Its aim was to “explore the country-specific teaching materials for learners from different countries to achieve sustainable development of Chinese language teaching

materials”, which attracted the attention of both domestic and foreign experts. Subsequently, China Hanban organized professors and experts to prepare a series of country-specific textbooks. Country-specific foreign language teaching material is also known as localized materials. Recently, with the “Chinese rush” and teaching activities of the Confucius Institute carried out abroad, the problem of country-specific foreign language teaching materials has become more prominent.

Currently, commonly used Chinese textbooks are basically in English and Chinese, which sets up an insurmountable obstacle for non-English speaking foreign students. Even though textbooks in other languages can be found, they are only a translation from the Chinese-English version and error cannot be avoided. In the first lesson of textbook of 当代汉语 (Çağdaş Çince, Wu, 2010), the topic of the dialog is 您贵姓 (What's your name). In the Chinese-Turkish version, the topic in Turkish is “Sizin soyadınız”, which is an incomplete question (Its proper Turkish translation should be: “Sizin soyadınız nedir?”) This is a very typical example of the fact that the country-specific textbook is only a

translation from Chinese or English into a specific language. The compiler even did read the contents of the text. In recent years, there are articles about foreign language teaching materials, but quite few specifically about the problem of localization of teaching materials. Some teachers have tried writing country-specific teaching material and have made some achievements.

But what is the localization of textbooks? What are the principles? How will country-specific teaching materials highlight the characteristics of “country-specific”? There are some issues worthy of further exploration.

1. What are country-specific teaching materials

As the name implies, they are Chinese language teaching materials prepared specifically for different countries. The ‘country’ not only refers to a particular country, but also to countries speaking a similar language and share similar cultural backgrounds.

The significance of country-specific Chinese language teaching materials is self-evident to the performance of the local Chinese teaching. Then what’s the relationship between country-specific and principles for the writing of Chinese textbooks?

1.1 The features and pertinence of country-specific teaching materials

In recent years, there are more articles on the principles of fun, *practicality* and pertinence in a Chinese language textbook. Fundamentally speaking, the user determines the principle to write a textbook, that is, it’s important to know to whom a textbook is prepared, which is the issue not to be avoided. Li Quan (2004) generalized pertinence of teaching Chinese as a foreign language (TCFL) into five aspects: to fit the natural and social characteristics of learners; to fit the needs and goals of learners; to fit the conditions and environment of language learning; to reflect the nature of the discipline and the characteristics of the type of course; to reflect the teaching emphasis and difficulty of the target language. This summary is quite comprehensive. In fact, country-specific is a concrete manifestation of the principle of pertinence in Chinese language teaching.

1.2 The relationship between the feature of country-specific and universal

The advocating of writing country-specific textbooks does not mean denying the writing of universal textbook. They differ only in the intention, the user, the contents, arrangement of style, choice of vocabulary, etc. If it does not reflect the

principle for the preparation of teaching materials, a nominally country-specific Chinese language textbook may even be less practical than one for general use. We studied some of the country-specific teaching textbooks and found that these teaching materials play a huge role in helping the local learners. Their common features are: (1) The “quantity” of the textbook coincides with the local restrictive regulations for the school system, credit hours, which is easy to use; (2) The combination of text content with local circumstances and customs makes the teaching material attractive; (3) Grammar entry and choice of vocabulary is based on the language comparison in a specific range and as a result it is clearly targeted. (Zhao, 1992)

Although in recent years, manpower and material resources have been put in both domestically and abroad, the textbooks written appear “acclimatized.” Currently we still lack textbooks adaptable to all types and levels of learners. Country-specific teaching materials for specialized courses urgently need to be improved, such as textbooks for writing class and those for master programs of Chinese majors. Therefore, in order to compile a good localized textbook, we should not only comply with the principles of localization, but also we follow the general rules to compile country-specific Chinese language teaching materials, such as following the principles of learner-centered, standing in the perspective of learners to design the structure, to select contents, to prepare exercises, to design the length of the text, etc. We should also follow the principles such as from easy to difficult, step by step, and recurring. All aspects of the past successful experience of compiling should be fully absorbed in the organization and layout of a textbook and at the same time partial innovation should be made to enhance the characteristics and novelty of textbooks.

1.3 The significance and necessity of country-specific teaching materials

Since the teaching materials for general-purpose and for a specific country cannot replace each other, the country-specific teaching materials are indispensable. In particular, with the establishment of the Confucius Institute, Chinese language teaching has developed into two complementary wheels home and abroad. Now the number of Chinese language learners studying abroad even far exceeds the number coming into China to study. In many cases if we completely adopt teaching materials for general use for Chinese language teaching in a foreign country, the transformation is too large, too costly, which may be difficult for both learners and teachers to adapt. Thus it's necessary for

local people to compile teaching materials that fit local education system, teaching philosophy, educational model, teaching content, etc. Or as what some universities have implemented, there should be a cooperation of Chinese and local teachers. Specifically speaking, emphasis should be laid on inter-university cooperation, regional cooperation and international cooperation. Universities should work together, break down barriers, and make full use of high-quality academic resources to construct successfully country-specific Chinese language teaching materials.

There's even a demand for country-specific teaching materials in China. Zhang Bo (2007) pointed out that due to the situation of little "United Nations" Chinese language learners with multi-native language speaking backgrounds has changed into the one with learners from different countries with a single-native language, the teaching pertinence quickly attracts attention of instructional circles. That means country-specific teaching materials also have a place in TCFL in China.

As to the language medium for universal teaching materials, Wang Hanwei (2007), after investigation, said that through consolidations of the composition of students of recent years and the findings of the survey, we can draw an important conclusion: TCFL teaching materials with English as its language medium provides service for different categories of foreign students to certain extents, but they mainly adapt about 16% of the native English speaker, not to approximately 84% of non-English native speakers. Therefore, we believe that English cannot be used as the universal medium in TCFL and the language medium for country-specific teaching materials should be a local language, which means the preparations for country-specific teaching materials is essential.

2. Characteristics of country-specific Chinese language teaching materials

Country-specific Chinese language teaching materials are not simply a translation of the annotations of the existing textbooks into a certain local language, but they should be compiled concerning the language, culture, customs, and society of that country. Their characteristics can be of surface features and deep features.

2.1 The surface features of country-specific teaching materials

Surface feature is the surface characteristics, including: (1) Binding and

design of textbooks. For example, the cover may be some familiar local landmarks, images of people, pictures of customs, etc. The user sees a brand new Chinese textbook, but there's something familiar to him or her which will bring about intimacy and will arouse the desire for the user to learn. (2) The annotation is in local language. Vocabulary and grammatical explanations leave clear traces of the local language. The user can accurately comprehend the learning content, rather than learn a completely unknown language through a foreign language which he or she does not fully understand. (3) The text should involve local phenomena, like culture, customs, architecture, nature and so on. For an example, in a text designed for Turkish learners of making self-introduction, such words like “伊斯坦布尔人 (I'm from İstanbul)”, “安卡拉人 (I'm from Ankara)” and “伊兹密尔人 (I'm from İzmir)” should be provided; as to festivals, such words like “开斋节 (Ramadan Festival)”, “宰牲节 (Feast of Sacrifice)”; as to customs, we cannot do without mentioning “土耳其肉夹馍 (döner)”, “烧烤 (kebap)”, “清真寺 (mosque)”. While if a textbook for general purpose is used, it will be a teacher's job to supplement these words. Although that is only a presentative example, it's enough to make Turkish learners feel that this teaching material is entirely prepared for local learners, thus stimulating their enthusiasm to learn. (4) Lining with the actual situation of the local learners. Take the Department of Chinese Language and Literature of Erciyes University as an example, compared with 8-10 hours weekly for oral lessons (intensive course) in China, this university offers six hours. Besides, Turkish students, unlike Japanese and Korean students, spend less time in learning. So the capacity of a textbook for general purpose will seem excessive, which will result in a great blow to the confidence of the Turkish students.

2.2 The deep features of country- specific teaching materials

Deep features require that local learners' characteristics should be studied; the similarities and differences between the local and the target languages should be compared to reduce the negative transfer. Surface features are relatively easy to achieve, but a country-specific teaching material cannot be in the true sense only with the surface features. Deep features include: (1) Contrast and comparisons are necessary between Chinese and the learners' local language in order to improve their comprehensive level of Chinese language. For the learners learning Chinese as a foreign language, this contrast and comparison in their mind was inevitable and to a great extent the mistakes they make has something to do with

the interference of their mother tongue. More importantly, if the advantage of the contrast and comparisons can be taken, the speed and efficiency of the learners can be greatly improved. Therefore, to compile good country-specific teaching materials with deep features, there should be teachers who know the local language to participate, especially the local Chinese language teachers, with their own Chinese language learning experience, coupled with their comparison of native and Chinese languages. As a result, this teaching material can not only be more obviously targeted, but also help to improve the learning efficiency of learners. (2) Learners' thinking and learning habits should be taken into considerations. The formation of learning habits is a long-term matter, and sometimes even with ethnic characteristics, so it's no easy if you want learners to change their habits. As to the learning habits, the Chinese people generally spend a lot of after-class time to learn, but it's rare for learners from the west, including those from Turkey. So the focus of the design of textbooks should be on classroom teaching. (3) Cultural contrasts and comparisons should be conducted to comply with the cultural identity of a specific country. In country-specific teaching materials, Chinese cultural phenomena can be appropriately explained. (4) Foreign language learning means should fit the specific country. If modern means can be found in a specific country, more practical network multi-media courseware and software should be developed.

3. The implementation for preparations of country-specific teaching materials

There are still some principles needed to be considered, such as the orientation of users, textbook category, context, vocabulary and grammar points.

Firstly, the organization of compiling team is important. Yang Qinghua (1995), said: "The characteristics of the country, the culture, the environment should be taken into considerations in the construction of a new generation of teaching materials, particularly for those to be use abroad. Chinese and foreign experts should cooperate. Only with a clear target will the teaching materials have better applicability and a higher effectiveness." Tang Shihong (2004), said: "I would like to acknowledge once again: Sino-foreign cooperation is the only way to improve the *pertinence of TCFL* teaching materials. And 'cooperation' should be a comprehensive cooperation in contrasting and comparing the languages and cultures. I wish that TCFL teachers and experts to give due attention and concern to this issue." It can clearly be seen that the writers of country-specific teaching

materials must be proficient in the actual situation of the two countries, languages, cultures, customs, educational system, educational philosophy, psychology of learning, learning stages and so on. The writer will either be local teachers who know Chinese or Chinese teachers who live and work for a long time locally, or a cooperation of two parties should be established. Textbooks with deep features should go through repeated trials, modification.

Secondly considerations should involve the implementation and enforcement of the principles to compile teaching materials. If deep features are to be embodied and to be implemented, at least the following work should be done: (1) After determining the general principles to write a textbook, the specific practices are to be established, such as those of how to allocate vocabulary, how to arrange grammar points, what is similar to the specific country. For example, we can change the sequence of Pinyin in phonetic learning stage by arranging those consonants and vowels that have the same or similar pronunciation to Turkish in the first few lessons. By doing so, learners' fear of difficulty can be reduced, thus mobilizing their enthusiasm for learning in their first stage of learning. For learners of non-Chinese characters circle, they have to spend more time on writing, which should be taken into account. (2) Local second language teaching materials should be collected and then analysis and comparison should be conducted so as to establish the philosophy for the preparations of textbooks. It's also important to analyze the advantages and disadvantages of these materials, listen to the feedback from the learners about these materials so as to fully absorb the strengths of other materials and avoid deficiency. (3) The preparation of country-specific textbooks is inseparable from the principles for the textbooks for general purpose. The only difference is the addition of country-specific characteristics. The second language teaching principles, such as from easy to difficult, from simple to complex and priority for urgent should also be observed. (4) An investigation of motivation, purpose, methods and means is necessary. Preparation of a country-specific textbook is a comprehensive and systematic work. Preparation of dictionaries, of textbooks for different types of class and for different users for a specific country takes greater efforts for development.

4. Conclusion

When we talk about country specific teaching materials, we don't mean in a strict sense to compile a textbook respectively for every specific country. We mean only when universal teaching materials cannot meet the local demand do

we have to prepare teaching materials for a specific region or a country.

Even a country-specific textbook will be given up or ignored if it is not well designed and prepared. A translation of the previous textbook cannot be a real and good country-specific textbook.

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Chapter 20

From Traditional Competition Strategies To Digital Platform-Based Strategies

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1. INTRODUCTION

Today's economic, social, cultural, and technological developments have changed the strategies and structures of organizations. Globalization has led to an increase in the rate of change and an increase in competition. The difficulties brought by the competitive environment and the rapidly changing environmental conditions make it difficult for businesses to continue their lives. Businesses are faced with serious restrictions due to reasons arising from external environments such as developments due to the economic conjuncture in the world, the increase of rival businesses, the intensification of the competitive environment, and the necessity to follow many different environmental variables. The competitiveness of businesses has become dependent on their ability to monitor these constraints and adapt their strategies accordingly (Akdağ, 2021). Businesses, whose primary purpose is to make a profit and grow by profit, are forced to be a part of this system in terms of globalization.

The most important feature of the competition is that it is sustainable. The concept of sustainability is particularly closely related to a firm's ability to maintain its competitive advantage over time (Caldwell & Anderson, 2017). This concept is also considered the ability to be persistent. At the same time, sustainability is the ability of a business to survive in a dynamic competitive environment. Your strategies; It is based on a corporate decision-making approach that considers its impact on stakeholders, employees, partners, suppliers, and society. On the other hand, sustainability includes methods of coping with economic and social changes, engaging in responsible and ethical business practices, providing high-quality products and services, and determining whether the business meets the needs of its stakeholders.

To compete, it is important to know who the competitors are and which market they are addressing. M. Porter talks about the competition in the market and the five forces that affect the decisions and behaviors of businesses. These; threats posed by potential competitors, threats posed by substitute products, bargaining power of suppliers, bargaining power of customers, and the severity of competition among competitors in the industry (Ülgen & Mirze, 2016). Together, these five competitive forces determine the intensity of industry competition and profitability; The greatest forces are at work for the establishment of the strategy and they are extremely important (Porter, 2000).

Organizations operating today, where competition and the rate of change increase; To achieve the performance they desire and to continue their lives, they had to choose and implement attractive strategies, taking into account the environmental factors they are in. The strategic structure of a successful firm must be in harmony with its internal and external environment. With the increase in

integration and solidarity between countries, nations, or continents borders between markets have disappeared. With the development of technology and communication, it has become a necessity for businesses to adapt to digital. Rapid developments in information technologies have transformed from traditional strategies to digital-based strategies. Digital-based transformation activities such as designing new business processes and new business models are gaining momentum. Accelerating the adaptation process to digital transformation, which is seen as a very important process for business management, and realizing the transformation is necessary for competitive advantage. But the competition is more challenging than ever. Traditional competitive strategies have been replaced by digital-based strategies, which are more difficult to manage than in the past. In digitalization, which has become a necessity with the development of technology, organizations need to determine new strategies and roadmaps with main goals.

In the digital world, technology has a radical and transformative effect on all sectors. To reach their goals, businesses benefit from digital technologies in decision-making processes, production stages, differentiation in product design, increasing service quality, and protecting against time and cost risks. Digitalization plays the biggest role in changes in business models and processes, products and services, communication channels, and supply chain channels. The best examples of digitization are seen in the retail industry. It also provides great convenience for stakeholders in companies to organize meetings in virtual environments and to carry out financial transactions on the internet. Producer companies also use digital technologies intensively in their activities (Bilgiç, et al. 2020).

2. TRADITIONAL COMPETITIVE STRATEGIES

The main problem is how and what kind of strategies an enterprise operating at the level of strategic cooperation should determine for this cooperation. Michael Porter, a faculty member at Harvard University, named these strategies that will gain a competitive advantage in the market as generic strategies. Generic strategies form the basis of competitive strategies. The profitability, market shares, costs, and competitiveness of businesses in their sectors compared to their competitors are obtained by developing competitive strategies. According to Porter, businesses have three basic competitive advantages (Eren, 2010). Among the competitive strategies, cost leadership strategies, differentiation strategies, and focusing strategies are shown in Figure 1.

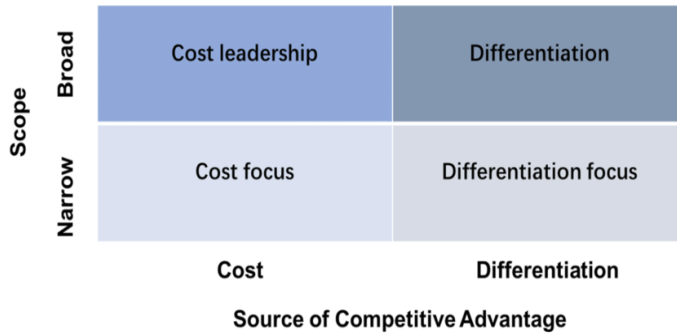


Figure 1. Competitive Strategies

Reference: www.researchgate.net/figure/Porters-generic-strategies.

As seen in the table, competitive strategies; are cost leadership, differentiation, focus on cost, and focus on differentiation. In his first study in 1980, Porter did not divide the focus strategy into two parts, but as a result of the discussions, he divided this strategy into two after five years. While cost leadership and differentiation strategies provide a competitive advantage in wider areas, it is thought that focusing on cost and differentiation will provide superiority in narrower areas. The implementation of these strategies may vary from sector to sector (Eren, 2010).

Offering unique, valuable, and different products and services to customers is among the objectives of competitive strategies. Competition strategies in general; It aims to be able to sustain its competitive position, which strategically outperforms other competitors in the market, generates above-average income, and is based on criteria that customers perceive and attach importance to. As a result of this target, the participation and growth of the enterprise in the market are guaranteed in the long term. This depends on the product itself, the channels to be used in distribution, and after-sales service. What is important here is that consumers find the product or service offered by the business to the market valuable, superior, and unique (Porter, 1980). To briefly explain cost leadership strategies, differentiation strategies, and focus strategies:

2.1. Cost Leadership Strategy

It aims to appeal to a large customer base by minimizing costs during value chain activities (R&D, service, sales force, advertising, etc.). These strategies, it is not aimed to reduce the prices of products and services, but to reduce costs in all activities. There are two important advantages to cost leadership. First, by offering low-cost products at a lower price than competitors, both the same profit

is obtained and their market share is increased. Here, reducing the cost of labor and raw materials during production provides profitability to the business. Secondly, when the industry develops and new customers are acquired, existing firms that gain low cost and price advantage in the price war gain an advantage over new entrants. Cost leadership, it is aimed to reduce the costs of all inputs in enterprises and ensuring that the best of the competitors is obtained at the lowest cost (Türkay & Mirzayeva, 2016).

Businesses with cost leadership are protected from their competitors due to low cost. Since low cost means more market share and more input, bargaining power in front of wholesalers will increase and other companies will be prevented from entering the market. As long as it holds the leadership, the business will be safe in the market. But we also need to see the drawbacks of cost leadership. Competitors will find ways to get ahead of the leading business. One of the ways to achieve low-cost leadership is to reduce labor costs. Costs can be reduced by making production in developing countries where labor wages are low. However, when competitors produce with cheaper labor, they can seize the advantage, and the leader's supremacy may come to an end. In addition, competitors can learn the production processes and methods of the enterprise. Advantage easily passes to competitors and while constantly looking for ways to reduce costs, rapidly changing customer expectations may not be met. The fact that businesses produce at a low cost puts them in a more advantageous position compared to their competitors in the sector against substitute products (Porter, 2000).

2.2. Differentiation Strategies

They are applications made to offer “separate and different” products and services to customers and to fulfill customer requests at a higher level than competitors. Businesses are seen as successful when customer requests and expectations are fulfilled in the product or service offering process, design, brand name, image, technology, and features (Bordean et al. 2010). Customer needs are endless, it is very important to analyze and evaluate them. In addition to differentiation in products and services, it is also necessary to be different in business methods and activities in the value chain. These are the strategies that must be implemented in situations where the wishes and needs of the consumer are in a wide range and it is difficult to provide this with standard products. Good implementation of differentiation creates direct and indirect dependence on the business and the brand.

Differentiating businesses think that with the differences they make, the customer will be willing to pay the price of this difference. The price difference will be different from the price of the cost leader. However, customers believe

that the price of these products is worth the overpayment. In differentiation, the leading manufacturers emphasize the quality of their products, implement the strategy better with their superior technical features, and buyers are willing to pay extra prices for these different features. The superior status and prestige feature of the products can also make differentiation attractive (BMW cars, Rolex watches, etc.) (Eren, 2010).

Advantages of differentiation; It creates firm and brand loyalty on customers that cannot be easily erased. It is easy to reflect price differences that affect the costs of the products. It can pose a significant obstacle to competitors trying to enter the market with their privileged advantages. Disadvantages; As a result of the recent introduction of counterfeit products and their inability to distinguish them from the real ones, the differentiation feature in the eyes of the customer is decreasing. Another disadvantage is the fear of not meeting the customer's wishes and needs. It is now difficult to maintain a prestigious and privileged position, and new competitors are entering the market.

2.3. Focusing Strategies

It does not appeal to the whole industry like other strategies, but a specific group, a segment of a certain product line, a specific geographical market, specific and small customer group. Focusing; is the shaping of sales and marketing activities to meet the needs of this segment by determining a narrow market segment and developing products and services (Zuckerman, 2002).

Focusing strategies; These are the strategies that businesses apply to focus on low cost and cost for certain customer segments and focus on differentiation for certain customer segments. The purpose of these strategies is to gain a competitive advantage and make it sustainable. The business focuses on certain groups in the market, prepares its products and services only according to this group, and by keeping the price low, it gains a competitive advantage in cost orientation. With this strategy, a sufficient number of customers are satisfied and the product gains popularity. Focus on differentiation, on the other hand, is to meet customer demands by slightly differentiating the features of its products, apart from its competitors. By focusing, businesses find the area of strategically reducing cost, differentiating or applying both strategies at the same time (Porter, 2010).

The advantages of this strategy are; The customer buys the product in a more privileged way that he cannot find elsewhere, and the competitors who want to enter the market are discouraged. Since it serves a narrow segment, a high emotional relationship is established with customers and an advantage is gained by meeting the changing demands immediately. As for the disadvantages;

competitors can expand their product ranges. It is the reduction of differences in products and services, the presence of sub-markets, and leaving the business out of focus (Dinçer, 2013).

3. DIGITALIZATION AND DIGITAL PLATFORM

The simplest definition of digitalization; is the reading of information from an analog state with computer technology and passing it from one format to another. Communication is provided from people to machines and from machines to people with digitalization. All kinds of information can be easily processed, stored, and transmitted by computers. Digitalization has reached its peak with the internet, and communication tools have become interconnected. Internet technology has spread rapidly with the use of civilians. In the USA, radio has spread in 30 years, a television in 15 years, and the Internet in 3 years with the development of technology (Castells, 2013). The Internet first started in 1960 with the ARPANET project, which is a closed system used only in the military for the US Department of Defense. The main purpose of this system is to communicate and provide information flow in cases of natural disasters, nuclear disasters, and war. While it was a system that works within itself and is not used by ordinary people, but gradually started to be contacted outside, it later developed as a system that arranges the data exchange of computers and enables information to reach from one place to another. In 1990, the World Wide Web, a service and information system operating over the Internet, was designed, and with this invention, web pages were accessed from the Internet. Social media platforms, which started in the 2000s and are heavily used and popular, are shown in Figure 2 (Google, Facebook, Instagram, Skype, Whatsapp, LinkedIn, Twitter, Pinterest, Android, etc.).



Figure 2: Social Media Platforms

Reference: www.artsurem.com

According to the Global digital 2021 report, approximately 7.83 billion people are living in the world. Access to the Internet constitutes 53.6% of the population

with 4.66 billion people, while 4.2 billion people are active social media users. Today, the internet is present in every moment of our lives. To summarize how we have come to these days when communication is at its peak thanks to advanced technologies; After the First Age, the Middle Ages, and the New Age, the Modern Age was entered with the French Revolution (1789). Between 1750-and 1850, the "Agricultural Age" ended and the "Industrial Age" began to be experienced. Between the years 1850-and 1915, petroleum, chemistry, electrical technologies, steam engines and trains, steel technologies, etc. With many developments in fields such as II. The Industrial Revolution has entered. After these developments, rapid advances were experienced in many fields such as radio, television, telephone, computer technologies, serial automobile production, genetic sciences, nuclear technologies, and artificial intelligence in the 20th century. After the industrial revolution, a new revolution called the "Digital Revolution" was encountered in the middle of the 20th century. The era that includes communication and information technologies, which is the era we live in, is also called the "Information Age". The transition from traditional competitive strategies to digital platform-based strategies is explained below as a conceptual framework (atsovizyon.org.tr).

3.1. Digitalization

It has become one of the most important concepts of this century that directs the behavior of people and consumers in our daily, social and working lives, and regulates and changes the market strategies of businesses. According to Gartner's dictionary: "Digitalization is the use of digital technologies to change a business model and provide new revenue and value creation opportunities". "The process of moving to a digital business" is "the process of using the information to transform digital technologies and business operations". While explaining digitalization, Gartner focuses on business models in businesses rather than social interaction (Gartner IT Glossary).

Sabbagh et al. (2012), digitalization also has a positive effect on the development of the country in terms of society and administration. It supports innovation, creates new business areas, increases the quality of life, facilitates access to official practices, and provides support for education policies. For this reason, countries should invest in digital transformation in science, industry, and society. In Brookings' report, things are changing as digital technologies are used in the business world, computer-controlled equipment does the work of hammers and lathes in factories. By changing business roles and processes, automation systems constitute important parts of digitalization (Muro et al. 2017). In the report prepared jointly by MIT Sloan Management Review and Deloitte, 76% of

4800 managers working in various countries around the world thought that digitalization is very important for their businesses, and 92% thought that digitalization will be more important for their businesses in the coming years. Digitalization affects many areas within the company, affecting the information technology department, strategy, working models, and organizational culture. Digitalization for businesses is to adapt to competitive market conditions, reduce costs and save time (Parviainen et al. 2017).

Klotzer and Pflaum (2017) stated in their study that companies should adapt their value chains to new technologies and digital systems. Becker et al. (2018) stated that developing business models that differ from competitors, and integrating and using new technologies in the business structure are important factors that will enable companies to survive in the digital future. Hess et al., (2016) argued that to take advantage of the full value creation potential of digitalization, it is necessary to know digital business models and how to do digital transformation strategically, not when. Wang et al. (2019) emphasized the importance of geographic framing and physical distances and explained that competitors in close range should use more digital platforms strategically and that digital is a powerful interaction tool between suppliers, customers, and business partners. Becker and Schmid (2020), in their research on SMEs, emphasized that these companies should first determine strategies suitable for their situation, review internal and external processes, and as a result, use technology for their purposes.

In the 20th century, the perspective on business strategies has changed, old patterns have been destroyed and new applications have gained functionality. Integration and solidarity between countries have increased with globalization. With the development of technology, the return to digitalization has accelerated. In scientific studies, it has been seen that digital strategies are a current research topic. Markets that act as intermediaries in two or more markets are called “platform markets” in definitions in recent studies (Lobel and Bamberger (2018), Hovenkamp (2018), Shelanski (2013), Budzinski and Stöhr (2018)), Haucap and Stühmeier (2015), Filistrucchi (2018).

3.2. Digital Platform:

Before the conceptual explanations of digital-based platforms, it is necessary to define the concepts of the platform and digital platform. Platform; It is defined as “a tool that brings together two or more different types of users and enables them to interact/exchange value” (Evans, 2016). The complex service networks that businesses provide for users in different groups are called platforms. Not every brokerage service should be considered a platform service. Many

successful companies operate platforms. With the Internet and modern technologies, the activities of platforms are spreading globally (Evans 2017). Compared to physical platforms, digital platforms integrate consumers, manufacturers, sellers, advertisers, and distributors of different business lines with each other. Enterprises on digital platforms need computer or device operating systems in their communication with their users (Freiden 2017). The purchase and sale of products and services electronically over telecommunication networks using binary codes is done on digital platforms (Nazzini, 2018).

One of the features that distinguish digital platforms from physical platforms is that they leverage the internet and third-party software without incurring physical investments or sunk costs. In addition, by adding features to the software, the ease of using more than one platform at a time and the low cost of product switching are other features (Evans, 2017). Another feature is that it has modern information technologies such as collecting and disseminating large amounts of data at a low cost (Montag and Winter, 2019). On digital platforms, businesses promote the products and services they offer to larger audiences at low costs, provide after-sales services, and find the opportunity to easily convey the wishes and needs of consumers to the business. With the development of technology, there have been changes in people's lifestyles and shopping.

Thanks to these platforms, sales increase, positioning are made and public relations activities are carried out. Digital platforms are not just Facebook or Twitter. It is involved in all processes of businesses, in marketing and public relations departments, at every step of the value chain. In digital platform strategies, "adaptation" conditions are sought to create a competitive advantage and provide value. These conditions should be in full compliance with the competitive strategies and positioning strategies shaped according to the business policies. When the business uses an aggressive strategy, it should also be aggressive in digital and show differentiation strategies directly or indirectly. An innovative business should analyze customer requests and needs well, and adapt concepts such as quality, low price, and satisfaction to the digital language. These compliance conditions must be complete. In an incomplete situation, digital can do more harm than good. Digital is preferred due to its ease of access, low costs, and easy monitoring of strategies. Digital platforms integrate manufacturers, consumers, advertisers, sellers, and distributors with each other through different business models compared to physical platforms. Digital platforms and physical platforms differ from each other due to some characteristic features. Features of digital platforms:

- Not having to deal with concrete investments and sunk costs,
- Using software and the internet to spread rapidly,
- Easy to add new features since they are software-based,
- Users can access multiple platforms at the same time
- Features such as low cost of product replacement (Evans, 2017).

Transformation to digital (buzzword) is a structure that works in cooperation with strategies and practices that work in coordination with each other in every field, and common resources that do not have a single solution that creates differences. With the technology change, the usage behavior of the consumer has also changed. Businesses have made changes in their business models, organizational structures, and marketing studies. This technological change is called “digital transformation”. Thanks to computers in business processes and social media in communication, new products that are only digital have emerged. If we count the features of digital transformation:

Speed: The rapid development of dynamics in the digital world enables the effective use of digital transformation power. The pulse of the consumer can be kept quickly in the provision of products or services. The information to be given is activated very quickly and can be removed if desired. The reactions of the target audience are seen immediately and the strategy is changed quickly.

Interaction: There is bilateral interaction from brand to the user or from user to brand. However, in traditional media communication, there was only one-way communication from brand to consumer with television or newspaper advertisements. In two-way communication, the likes, comments, and shares of visitors on digital platforms affect the successful performances of the campaigns.

Targeting: Delivering a message according to the determined target will be beneficial both locally and globally. Targeting is one of the most important features of digital compared to traditional. It is possible to promote the target audience who has not purchased the product of the business but added it to the product basket. It is possible to target with information such as the geography, gender, age, and marital status of the consumer.

Measurement: It is much easier to see the return on investment in digital than it used to be. By seeing the number of impressions, clicks, and conversions, the success of the advertisement is easily measured according to the determined performance indicators.

Cost: Considering that traditional promotions are made with high budgets, digital promotions can reach the right audience with lower budgets. Thanks to digital targeting, it is possible to reach the desired user at more affordable unit prices.

Optimization: It is possible to change the entire strategy and the direction of the investment by tracking the performance instantly digital. Making the investment that will give the best results has important consequences for operational efficiency (Gökşin, 2018).

When it comes to digital transformation, transformation in technology is the transformation of the way we understand and do business. Here the target is the customer. Suppliers, distributors, main dealers, sub-dealers, authorized services, etc. All units working together in business and earnings are counted as customers. Rapidly changing digital technologies; smart cars, smart cities, household goods, the house itself, etc. Everything done on the internet is collected and turned into big data. Everything such as the lighting in cities, traffic signs, and bus stops are vehicles with smart technologies. Concepts such as social media, mobile applications, artificial intelligence, cloud technologies, internet of things explain the digital technologies we have today. Factors such as efficiency, flexibility, and customer attention may not be sufficient in the digital process of business processes of businesses. Within these activities, there should be a unity of purpose, target, and strategy. With the improvements made and emerging business models using these factors, digital transformation is being initiated.

In the digitalization process, decision-makers in companies need to decide whether they will digitalize for survival or customer satisfaction to take firm steps. Businesses that do not transform to survive disappear due to their inability to adapt to the digital world (Nokia). Companies that cannot do digital transformation with the thought of customer satisfaction are shrinking in the market with a decrease in their profits (Blackberry). Transformation means the change of the whole organization, not just a department. It is important to understand the difference between traditional business strategies and current digital-based strategies.

The reasons that encourage businesses to corporate digital transformation; are an increase in productivity, competitive advantage, quick response to customers' demands, customer retention, and gaining new customers. In addition, making the best use of the decision process, differentiation in products and services, obtaining new profit opportunities, the power of social media, increasing market penetration, product innovation, and adaptation to new markets are among the important reasons (Deloitte, 2016). Digital markets are described as areas where information is recorded in a binary way and products and services are bought and sold digitally, thanks to technologies that can be transmitted electronically through telecommunications networks (Nazzini, 2018).

4. DIGITAL PLATFORM-BASED STRATEGIES

In digital platform-based strategies, the most important element to be valuable and provide a competitive advantage is the management and organization of this platform. Otherwise, a sustainable advantage will not be achieved. Digital strategies in businesses can also be carried out by professionals or by outsourcing. In recent years, businesses prefer to use outsourcing more. The lack of knowledge and skills of those in management and the lack of time to spare for digital lead to outsourcing. Digital platform-based strategies are grouped into two. The first group is the “push strategy”, and the second group is the “pull strategy”. Figure 3 shows the push and pull strategies.

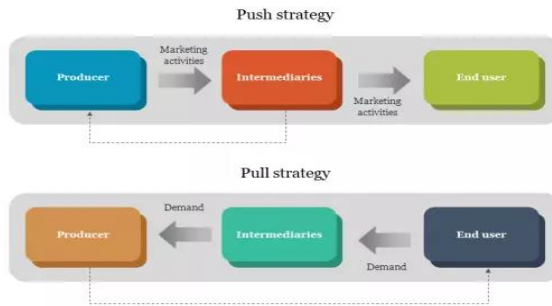


Figure 3. Push and Pull Strategies

Reference: www.slideegg.com

1. Push Strategy: The strategy used here is to convey the message about the business without the consent of the customers. Content such as advertisements, e-mails, and text messages on websites are used just like in pull strategies, the difference is that the user does not have permission. In the strategy known as the spam method, distribution is costly, the target audience is smaller. Push strategies appear to reach large numbers of customers by exposing the consumer to intense information communication. However, these messages, which are directed against the will of the consumer, cause the brand to be perceived negatively in the eyes of the consumer (Şahin, 2018).

2. Pull Strategy: Here, the aim is to enable users to see marketing content with appropriate initiatives. While presenting products and services for the consumer in attraction, advertisements should be more attractive and viral than competitors' advertisements. This strategy is the promotion, promotion, discount, premium, etc. that enables intermediary institutions and distribution channels to order products. includes activities. "Search engine marketing" and "search engine optimization", which are among the best digital tactics and most used methods, provide product and service inquiry. Businesses aiming to reach customers plan

their advertising and promotion activities in this way with an attractive strategy (Öztürk, 2004).

The right strategies are needed so that the decisions to be made regarding the activities we will do with digital channels can serve the same goal. The first step to be taken for this is to know the main target of the brand well. The planned strategy and the brand strategies should not be different. Things to do when creating digital marketing strategies;

- The marketing target should be determined by analyzing the brand owned by the business, and a strategy should be created by planning to reach the target.
- This planned strategy should cover all marketing strategies of the brand.
- The issue that needs to be carefully considered is that users need this brand.

In digital strategies, first of all, the business plan and marketing process are reviewed this process is analyzed and optimization is achieved. Then, advertising texts and advertisement visuals are prepared by targeting the communication strategy of the enterprise. These images are used in marketing activities. The aim here is to attract customers and ensure that customers understand the targeted actions correctly. Websites need to be prepared and managed by professionals for a good user experience. A successfully managed website has a high conversion rate and directs visitors to the membership and communication process. Making sales making and ease of payment are important factors for the customer. In addition, customer satisfaction should be given priority in the after-sales service. To the customers forever, these features must be fulfilled. Otherwise, the customer will go to the other company very quickly. Digital-based strategies can be implemented in 5 steps. It is given in Figure 4.

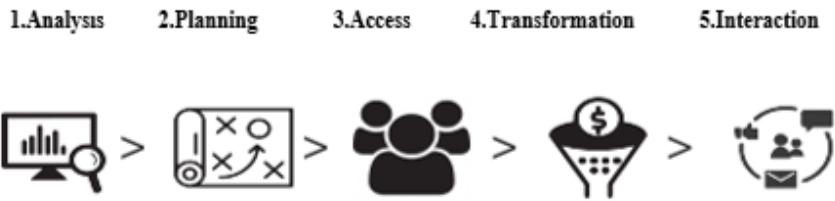


Figure 4: Steps of Digital Based Strategies

Resource: Gökşin, (2018)

1. STEP ANALYSIS: In this process, businesses have to analyze their situation and collect information. The analysis techniques that we will briefly focus on in this study are the traditional analysis technique SWOT analysis, SMART analysis, and digital-based analysis SOSTAC analysis.

4.1. Swot Analysis Technique

With SWOT analysis, strengths and weaknesses, opportunities and threats in the market, advantages, and disadvantages are determined against competitors. In this way, the action plan can come out very quickly and easily. The SWOT analysis is the determination of the strategic factors to be followed as a result of the analysis of the internal and external environments that have an impact on the success of countries, industries, and organizations. After the analysis, strategies are determined, scenarios are created, and the way to go is determined with expert opinions. It is an analysis technique consisting of the first letters of the words Strengths, Weaknesses, Opportunities, and Threats in English. Figure 4 below shows the SWOT Analysis Technique.



Figure: 5. SWOT Analysis Technique

Resource: : [https://leuenbergersolution.\(2020\)](https://leuenbergersolution.(2020))

Strengths: The basic capabilities of the business, brand advantage, and strengths against competitors are listed in this step. Strengths can be found with questions such as what are our advantages over the competitors, our advantageous position in the market, and which jobs we do better. In digital marketing, the number of followers of social media accounts is known as the strength of the business.

- **Weaknesses:** The issues where the brand lags behind its competitors in the market are determined and ways of improvement are applied. Answers are sought for questions such as what are the failures compared to the competitors, what needs to be improved, what should be improved in the business, and what are the weaknesses in the market.

- **Opportunities:** Opportunities dictate the direction of intended plans, build their infrastructure and strengthen strategies. It enables you to highlight the features that your competitors do not have in future opportunities. By taking a quick step in developments in the environment, changes in technology, or the mat, the opportunities that come before us are evaluated.

• **Threat:** It is ensured that the necessary precautions are taken by identifying the dangers that await the business in the current environment or the future. By seeking answers to questions such as whether there is a change in business, product and service standards, whether technological developments pose a threat, whether there are financial problems, and how are the competitors, it is ensured that the business escapes from the threats and the business is kept safe (Gökşin, 2018).

4.2. Smart Analysis Technique

To achieve success with the planned strategies, it is important to focus on the target in branding. It is necessary to take clear steps with correctly analyzed targets. The SMART technique, which is a technique in goal setting, provides the most successful process management in this process. The technique that can be used easily by everyone is a technique that can be used without any special tools or training. With SMART, the target is clarified and the effort is focused. Figure 6 shows the Smart Analysis Technique.



Figure 6: Smart Analysis Technique

Resource: <https://www.expertacademy>

The features of these Techniques are as follows.

- **Specific:** It ensures that the main goal of the business is clear to everyone and future success is seen. The goals should be clear and defined, and questions such as what, when, where, how, and with whom should be answered.
- **Measurable:** Being measurable and quantifiable makes it easier to see the success achieved concretely. Success measurement tools should be determined in advance and performances should be followed frequently.
- **Achievable:** The goals considered and desired should be reasonable and acceptable. Goals should be achievable while challenging. It should be sized according to the goals of the employees.

- **Relevant:** In this process, how relevant the selected target is to the company's target should be analyzed. And goals should be realistic and appropriate to the company's resources.

- **Time:** Time is very important in steps taken for goals. Each goal has a time limit that must be accomplished (brandnewgametr.com).

4.3. Sostac Analysis Technique

SOSTAC, another prominent model in the modern era in the creation of platform-based strategies, is one of the most popular models in easy and different marketing activities. SOSTAC was modeled by PR Smith in 1990 as a comprehensive and well-structured plan that should be implemented in terms of competitive advantage. It is one of the official digital planning methods used since 1998. It is easy and practical. The plan, which consists of the English initials of 6 objectives, gives the practitioner individual tactics and helps to create a business plan with appropriate strategies. It includes a SWOT analysis that helps businesses prepare deeply for their strategies. In SOSTAC analysis, the implementation stages of the process, marketing communication, and focusing on digital strategy differ from SWOT analysis. SOSTAC is a clear logic that builds strategy and tactical decisions, enabling better decision-making and deeper planning. This model has been put into use on many different platforms, from general marketing strategies to various managements (Mekonnen, 2016).

Experts apply SOSTAC analysis in specific situations such as direct marketing and digital marketing. An effective digital strategy provides a set of keys for businesses to make appropriate decisions and be successful on online platforms. Digital strategies include the rules for managing and controlling core competencies in businesses. A successful strategic approach provides a review of capabilities such as performance improvement, management stocking, resource management and configuration, data and infrastructure, and customer relations. SOSTAC is a study plan created from the English initials of 6 different methods (Situation Analysis, Objectives, Strategy, Tactics, Action). Figure 7 shows the Sostac Analysis Technique.

SOSTAC Model

Situation
where are we?

Objectives
where do we need to go?

Strategy
how do we get there?

Tactics
Details of Strategy

Action
what is our plan?

Control
How did you do?



Figure 7: Sostac Analysis Technique

Resource: <https://www.iiensstitu.com>

- **Situation Analysis:** In the digital-based Approach, the first thing to do is to analyze the current business scenario, that is, your situation. The second step is to do customer analysis, and the last step is to take a look at the macro and microenvironment and make a competitor analysis.

- **Objectives:** In the planning to be done, appropriate and smart goals are determined and these goals are measurable with a timetable. While doing digital marketing, it is necessary not to deviate from the basic goals. SOSTAC analysis for clear purposes will guide businesses. Here, it is important to act with goals such as what will come to the fore and where you want to be, to highlight the advantages, and to gain a place on the internet.

Strategy: Strategy; can be explained as all the ways and methods to achieve a predetermined goal. In digital, small intermediate targets are set. Which tools will be used at this stage and positions that will have an impact on the customer are made. Social networks, e-mail marketing, mobile marketing, etc. in campaigns. decide which channels will be used.

- **Tactics:** It is the step where ideas emerge in the activities to be done. A content plan is created here. Which channel will be used and which targets and strategies will be applied as a priority are determined. It constitutes the phases of the activities (such as Landing page, website optimization, and campaign details).

- **Action and Control:** Tactics are examined in detail, responsibilities are clarified, and building process systems and internal resources are overhauled. In control, performances are measured according to the original targets, budget resource allocation, and accurate planning is made (www.iiensstitu.com).

2. STEP PLANNING: Planning is the stage of deciding where we will be tomorrow. Focusing on the brand target in the planned strategy is very important for businesses to be successful. At the beginning of the factors that will facilitate the process, it is necessary to analyze the target correctly and determine the steps. It is a sequential process for the organization to make the necessary preparations for change and to eliminate uncertainties to steer the business. The top managers, who are responsible for the implementation, do the planning. Planning is necessary for businesses to predict with plans based on analysis, to make them more robust, healthier, and more profitable, that is, to develop and monitor their performance. With planning, the business both achieves its goals and gains a corporate identity.

3. STEP ACCESS: After evaluating the current situation in planning, it is determined which audience will be addressed and which channels will be accessed. The strengths of the owned channels should be analyzed correctly and used effectively. Accurately conveying the message of the product or service offered to the market is the most important step in communicating with the target audience. With the right communication, the more users will be, and the more users will be for conversion. The first step of access is to meet the user. Promotion should be provided by attracting the attention of users with video and banner ads. It is aimed to visit the owned sites by drawing attention to the target audience by drawing up a special communication plan. Each channel has different dynamics, for example, while visual ads stand out on Instagram, text ads appear in front of the user on Google.

4. STEP TRANSFORMATION: The conversion analysis of the target set on the website or mobile applications is carried out in this step. The success of the communication established on the target audience can be learned by examining the conversions. The answers to questions such as how much was spent in the conversion, how much profit was gained, whether the contents and banners were successful, whether new customers were obtained in the campaigns, and how high is the basket average can be found. The result of conversion analysis will be very valuable in new campaigns in digital marketing channels. In addition to targeted actions, profitability metrics such as ROI and conversion rate can be examined and improved. Values such as the number of newly acquired customers and the number of first-time shoppers should be analyzed.

5. STEP INTERACTION: The successful progress of the planned strategy in this step is possible when the users realize the desired conversion on the sites.

When the intended transformation takes place, the brand and the user begin to get to know each other more closely. While the user is using the brand's website or mobile application, the brand learns the user's name, gender, address, and device information. Brands attract old users to their websites rather than new users. Marketing channels such as e-mail marketing and mobile notifications to communicate with the user one-to-one in terms of creating interaction increase both the brand loyalty of the user and the conversion rate with personalized messages (Gökşin, 2018).

CONCLUSION AND RECOMMENDATIONS

While businesses compete with traditional communication methods, they should easily adapt to rapidly changing technology and customer demands by using digital competition methods, which are today's communication methods. Digital platform strategies and traditional competitive strategies should be integrated with various planning and internal and external analysis. In digital competition, businesses should constantly update their information and establish high value-added relationships that will respond to customer expectations. They should express themselves in the best possible way with constant and strict follow-up. Acquiring new customers in the market and long-term relationships with existing customers will be possible with digitalization, which is a new generation of communication tools. Businesses using digital platform opportunities will reach larger audiences with lower costs through digital channels, introduce themselves, offer after-sales service opportunities, and provide access that gives importance to consumers' opinions.

In the transformation, decisions should be made such as which platforms, which applications will be used, which solutions will be produced by the company culture, and the business processes and systems used should be analyzed. If these are not done, it will be a transformation in which efficiency cannot be achieved with unnecessary expenditures and the workload is increased. Businesses that position transformation with smart technologies and talented people will eventually find success. In businesses, it is necessary to determine strategic goals in digital, create resources, to sure and evaluate communication, and determine what to do in the future. It is important to determine the target audience in digital, to see the weak points, and to make appropriate decisions, that is, to make analyzes. To prevent competitors from coming to the fore, sufficient and correct resources should be allocated to digital communication. It is necessary to offer something of value to customers. It is necessary to use the cost factor correctly in digital.

There is now a digital consumer in the market, and this consumer obtains more information than businesses want to give about themselves, thanks to social networks. With planned and programmed progress that supports the corporate strategy, digital change will occur successfully. When determining their digital models, businesses must be faster in terms of being continuous and adapting to the changing world. In digital change, businesses should focus on their customers, employees, and partners and create value for their companies with strategies that will make their processes and experiences appropriate. In digitalization, businesses need to think big in technology and start small, develop samples, test, and scale every stage. One of the important actors in digital transformation is that the change is carried out by a leader. The establishment of a team that can manage the process together with the leader and the selection of agencies is very important for success. The manager or director who will manage the team and the online budget, make decisions about the agencies, and manage the strategies of the business correctly, should be chosen very carefully. These people should be experienced in general marketing and online marketing and should be effective and experienced in team management and agency management.

Employees in the digital transformation process in organizations are one of the most important resources. Technological developments and cultural changes have a great impact on the behavior of employees. For this reason, companies should involve their employees in this changing process and increase their competencies (Deloitte, 2018). Adaptation to digital transformation can be achieved with a strong, consistent and comprehensive vision. Top management is the most important driving force driving the digital transformation. Innovations in activities are increasing with the perception of digital vision carried out consistently within the organization and uniting around a common purpose with employees (Mäkinen 2017). Although every business has its recipe, there are some accepted methods. Businesses should be flexible according to their structures, Technologies, and employees.

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Chapter 21

Formal Institutions and National Innovation Capabilities: A Literature Review*

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INTRODUCTION

Innovation has been recognized as a key ingredient for transformational change in national economies. It has also been dubbed as essential for the development of nations and even for tackling global scale impediments to prosperity as described in the United Nation's sustainable development goals (Le Blanc, 2015). For instance, Christensen et al. (2019) stresses that market-creating innovations provide the shortest path to prosperity for poverty ridden countries. And innovation-based approaches also offer creative solutions for grand challenges such as climate change (Pinkse & Kolk, 2010; Rodima-Taylor, Olwig & Chetri, 2012), environmental protection (Melville, 2010; Ekins, 2010) and global inequalities (Aghion et al., 2019). As a result, there is an increasing scholarly interest on what makes some countries more innovative than others.

Although there is an agreement on the critical role of innovation, significant cross-national variation exists in terms of its prevalence. Research has attributed these differences to various factors such as income level (Galindo & Mendez, 2014), development trajectories, social norms (Xu & Chi, 2009) or historical processes (Arora, Romijn & Caniels, 2014). In many studies on cross-national variation in terms of innovation, institutional dimensions stand out as critical influences (e.g. Wang, 2013; Gans, Hsu & Stern, 2008; Leger, 2005; Unger, 2000)

Institutions have various definitions in the literature. In one of the most commonly used definitions, North (1991) states that institutions are "humanly devised constraints that structure political, economic and social interaction" (p.97). Institutions have both informal and formal components. While the formal side is manifested in written rules and regulations, informal side is represented by social norms, traditions or codes of conduct. There are common elements in different definitions of institutions: 1) they are devised by humans, 2) they constrain and enable social behavior, 3) they bring meaning and order to social life. Taking place in the sphere of social human activity, innovation is also subject to institutional influences. Since institutions provide the framework in which economic and social activity occurs, innovation is affected by the institutional context (Alcorta & Peres, 1998; Ervits & Zmuda, 2016). Considering that each country presents a unique context in terms of institutional arrangements, political and economic institutions are likely to shape country level innovation capabilities in significant ways.

This study aims to explore the literature on how formal institutions are related to national innovation capability in different country contexts. Formal institutions refer to the written rules, regulations and their enforcement. National innovation capability is the ability to engage in and obtain profitable results from innovation activities at

the country level. A large body of research has accumulated on the relationship between institutions and innovation in the recent years.

Answers to two research questions are explored throughout the study in order to extend the literature and provide insights to policy makers:

- 1) How has the literature on formal institutions and national innovation capabilities develop throughout years?
- 2) What are the characteristics of the literature on formal institutions and national innovation capabilities?

In order to achieve this end, a systematic review of the literature is conducted and certain themes are ascertained. The rest of the study is structured as follows. Methodological decisions of the study will be elaborated in the next chapter. Next, data analysis results will be provided. Then, the findings will be discussed around the literature themes. Lastly, the limitations and implications of the study will be discussed in the conclusion part.

METHODOLOGY

In this chapter, a comprehensive literature review is provided. Congruent with the research questions, the literature on institutional context and innovation at the country level is examined in a systematic method and gaps are identified. Then, the same method is applied to the literature on institutional context and innovation, pertaining to the second research question.

The systematic literature review methodology described by Denyer & Tranfield (2009) and Tranfield, Denyer & Smart (2003) is utilized in this chapter. Systematic literature review has been recognized as a reliable method because of its numerous advantages over unstructured traditional literature reviews. It adopts a replicable and transparent process that minimizes bias and errors (Tranfield et al. 2003). Moreover, systematic literature review is a widely adopted approach in recent studies published in high-quality journals. Because of these reasons, systematic literature review was selected as the best method for this study.

For article selection, a query was followed for institutions and innovation in the Scopus database. Only empirical articles that examine institutional factors at the country level were targeted. Book chapters, grey literature and non-English material were excluded from the search. The time horizon was set as the last 30 years, in other words between 1990-2020.

According to many, innovation is the main driver of economic growth (Trott, 2017). Schumpeter (1943) identified innovation as “the fundamental impulse that sets

and keeps the capitalist engine in motion” (p.10). Intergovernmental bodies such as United Nations, OECD and European Union address the importance of innovation by drawing roadmaps, policies and strategies relating to the topic. Having a more innovative economy is one of the top concerns for many countries. However, the potential to engage in innovative activities are path-dependent at the national level. In other words, some countries have acquired innovative capabilities ahead of others in history through knowledge accumulation (Dicken, 1998). Despite the intensive efforts to promote innovativeness on a global scale, significant cross-country differences persist. Therefore, the question of why some countries are more innovative than others still remain as an important inquiry for both researchers and policy makers.

In order to explain cross-national variation in innovative activity, institutions have been one of the most examined factors (Wang, 2013). Since institutions set the rules of the game for businesses (North, 1991), they have an overarching impact on innovative activity. Although there is a wide agreement on the positive impacts of innovation on national economies, innovation has been mostly treated as an organizational issue until recently (Trott, 2017). But studies on institutions and innovation picked up pace especially after 2000s and produced a considerably large literature.

To review the literature on institutions and innovation, the first step was drawing a conceptual boundary in line with the research questions (Denyer, Tranfield & Van Aken, 2008). This was a difficult task for the innovation concept because innovation is a complex multi-faceted process that includes various elements. Therefore, the elusive nature of the innovation concept introduces difficulties in its definition and measurement. This situation leads to a lack of consensus on the definition and measurement of innovation (Baregheh, Rowley & Sambrook, 2009). For example, the Oslo Manual (OECD, 2018) distinguishes between innovation and innovative activity and defines innovation as “a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (p.32) and innovative activity as “all developmental, financial and commercial activities undertaken by a firm that are intended to result in an innovation for the firm” (p.33). Similarly, Gault (2018) prioritizes outcomes in his definition: “An innovation is the implementation of a new or significantly changed product or process.” (p.619). On the other hand, Baregheh, Rowley & Sambrook (2009) advocate for a process definition of innovation: “Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully

in their marketplace” (p.1334). Trott (2017) also defines innovation as a process rather than an outcome: “Innovation is the management of all the activities involved in the process of idea generation, technology development, manufacturing and marketing of a new (or improved) product or manufacturing process or equipment” (p. 16). In this study, a process definition of innovation is adopted for capturing different phases of the innovation process. As a result, innovation is defined as a multiphase process in which organizations transform ideas into new or improved products or services. Therefore, the literature review included articles about different stages of the innovation process, its inputs and outputs.

In line with the definition provided above, a query targeted articles on institutions and innovation in the Scopus database with the following search terms: ‘institution and innovation’, ‘institution and R&D’, ‘institution and technology transfer’, ‘institution and new product’, ‘institution and new technology’, ‘business system and innovation’, ‘varieties of capitalism and innovation’, ‘national innovation system’. The initial search returned 3672 articles. Then, empirical studies that include country-level innovation as the dependent variable was identified through a careful examination of abstracts and full texts. After the elimination process, 223 articles remained for the review. After excluding the articles that focus on informal institutions, 207 articles remained in the sample. These articles were classified according to different features such as methodology, findings, dependent and independent variables. Details on the selected articles may be viewed in Appendix 1.

General Considerations About Journals and Year of Publication

This section reports the findings on the distribution of the selected articles according to journals and year of publication. First of all, as noted in Table 1, Research Policy contains the highest number of articles on innovation and institutions (n=24). Technological Forecasting and Social Change and Technology Analysis and Strategic Management follow with 6 articles. 79 of the 117 journals in the sample published only 1 article on the topic of interest.

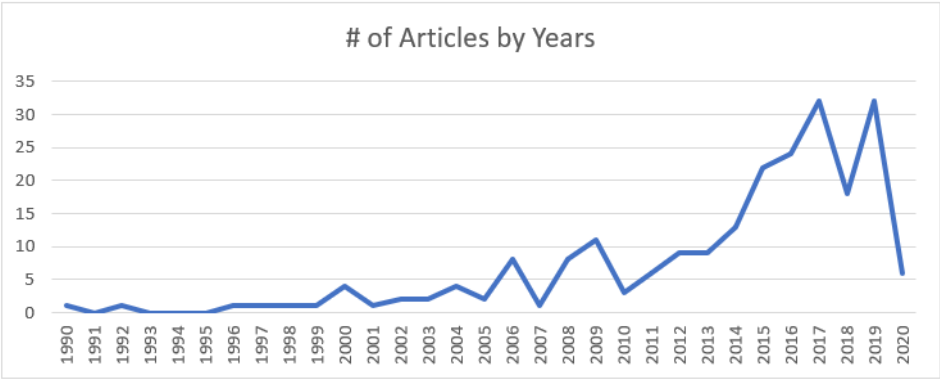
Secondly, most of the journals have a focus on business related topics (n=72). It is followed by journals focused on economics (n=39). And the remaining few journals are focused on country and sector specific studies (n=6). This shows research on the institutional antecedents to innovation has been published mainly in journals with a general focus on business on economics rather than sectoral focus. Future studies may benefit more from sector specific problematization while examining country level innovativeness.

Table 1: Number of articles by journals

<i>Name of the Journal</i>	<i># of Articles</i>	<i>Focus</i>
Applied Economics	2	Economics
Business and Politics	2	Business
Business Strategy and the Environment	2	Business
Cambridge Journal of Economics	3	Economics
China and World Economy	2	Economics
Chinese Management Studies	3	Business
Economic Modelling	2	Economics
Economics Bulletin	2	Economics
Emerging Markets Finance and Trade	2	Economics
Global Strategy Journal	3	Business
Industrial and Corporate Change	5	Business
Industry and Innovation	5	Business
International Business Review	5	Business
International Journal of Innovation Management	3	Business
Journal of Business and Industrial Marketing	2	Business
Journal of Business Research	5	Business
Journal of Business Venturing	2	Business
Journal of Cleaner Production	3	Business
Journal of Comparative Economics	2	Economics
Journal of Development Economics	2	Economics
Journal of International Business Studies	5	Business
Journal of International Management	3	Business
Journal of Policy Modeling	2	Economics
Journal of Technology Management and Innovation	2	Business
Journal of the Knowledge Economy	2	Economics
Journal of World Business	4	Business
Management Decision	3	Business
Management International Review	4	Business
Management Science	2	Business
Multinational Business Review	2	Business
Organization Studies	3	Business
R and D Management	2	Business
Research Policy	24	Business
Technological Forecasting and Social Change	9	Business
Technology Analysis and Strategic Management	6	Business
Technology in Society	3	Business
Technovation	6	Business
World Development	5	Economics
Other Journals	59	Business and Economics

Thirdly, the number of articles over the years shows an increasing trend in general as illustrated in Figure 1. The trend is especially apparent in the last decade. Although the concept of innovation was born more than fifty years ago, research on its relationships with institutions has shown considerable growth in the selected time period. This shows that there is an increasing interest on the area in the recent years. As the concepts evolved in time, research on institutions and innovation has developed over the years, introducing new issues, new contexts and new dimensions.

Figure 1: Number of articles by years



Methodological Approaches of the Articles

This section provides the findings about methodological approaches that the articles adopted. First of all, especially empirical articles were selected for the purpose of the thesis. But considering the whole literature on institutions and innovation, it is clear that empirical studies are predominant. There are only a few theoretical studies pertaining to the chosen time period, which shows that the research on institutions and innovations has reached maturity (Edmondson & McManus, 2007). This indicates that new methods of concept refinement and measurement are of primary importance for the future development of the area.

Second, the review shows that studies adopted several methodologies such as panel data models, fuzzy set qualitative comparative analysis or comparative case studies. As Figure 2 shows, panel data is by far the most commonly used methodology in the studies (n=54) and it is followed by ordinary least squares regression (n=23), comparative case study (n=17) and single case study (n=16). Since both institutions and innovation are dynamic concepts that are better examined by longitudinal studies (Tebaldi, 2013), panel data is expected to be the most suitable methodology for these studies. On the other hand, there is a considerable number of studies that employ case study methods. These studies generally compare two or

more countries or provide extensive detail of a focused context in terms of the development process of national innovation systems (NIS). Historical accounts of how NISs develop in different country contexts offer useful insights for comparison. In addition, this type of studies may add theoretical contributions to the area by pointing out unique institutional combinations of different countries and how they affect innovation trajectories.

Thirdly, the articles were categorized according to their dependent and independent variables in order to show how studies utilized various measures for institutions and innovation. Among the independent variables, intellectual property rights were the most commonly used measure (n=36). Regulatory framework (n=33), culture (n=22), national innovation system (n=21), legal framework (n=20), corruption (n=17) and worldwide governance indicators (n=14) are the other important conduits through which institutions are operationalized. Most of the commonly used measures focus on the formal side of institutions while culture has a considerable weight in the sample as a measure of informal institutions. Another striking feature is the lack of comprehensive measures that encompass a large part of a country's institutional order. Two such measures, worldwide governance indicators of the World Bank and economic freedom index of the Heritage Foundation, have been used in less than 10% of the articles. Considering the multi-faceted nature of country level institutions, more studies that utilize comprehensive measures are needed in the literature.

In terms of dependent variables, there is a plethora of measures related to the inputs and outputs of innovation as well as how the process of innovation is carried out. The highest usage frequency belongs to innovation (n=17) and number of patents (n=17). Innovation performance (n=14), R&D intensity (n=11) and R&D investment (n=11) follow. The most salient feature of the articles in terms of dependent variables is that most articles focus on either inputs or outputs of innovation when setting their measurement tools. However, the process definition of innovation includes both sides of the process as innovative activities. Whether they result in new products or not, innovation inputs should be included in measures together with outputs. Therefore, inclusive measures of innovative activity that cover the whole process should be given priority in new studies. Figure 4 depicts how many times innovation-related variables were used in the literature.

Content of the Articles

In recent years, research on institutions and innovation has investigated many different topics and problems in various contexts, so the issues covered by the articles are numerous and heterogeneous. The aim of this section is to identify the more

debated issues in the latest institutions and innovation literature. Therefore, research topics of the articles were analyzed in order to find common features. Although the effects of institutions on innovative activity was selected as the main theme of the literature review, clustering articles enable to offer a more nuanced view of the area. As a result, the following matrix structure in Table 2 is identified. In this matrix, the literature is grouped based on the institutional and innovation related aspects they are examining. The horizontal axis of the matrix is composed of institutional features under examination. And the vertical axis represents innovation related variables that are affected from institutional context. At the intersection points of institutional and innovation related variables, number of articles are provided. This table summarizes what type of topics have attracted more scholarly interest.

Table 2: Content analysis of articles

	Innovation outputs (new products, patents etc.)	Innovation inputs (R&D activity etc.)	Governance of innovative collaboration	Innovation development process	A specific type of innovation (bricolage innovation, private innovation etc.)	Radical vs. incremental innovation	TOTAL
Corruption	10 (-)	3 (-)					13
Government support	4 (+)	5 (+)			2 (+)		11
Legal framework	22 (+)	14 (+)	5 (+)	2 (+)		1 (+)	44
Regulative framework	24 (+)	15 (+)	3 (+)	2 (+)	5 (+)	2 (+)	51
Political framework	7 (+)	2 (+)	1 (+)			3 (+)	13
Overall institutional context	28 (+)	12 (+)	6 (+)	2 (+)	2 (+)	1 (+)	51
National innovation system	14 (+)	3 (+)	2 (+)	4 (+)		1 (+)	24
TOTAL	109	54	17	10	9	8	207

According to Table 2, the literature on institutions and innovation may be examined under seven categories: (1) corruption and innovation, (2) government support and innovation, (3) legal framework and innovation, (4) regulative framework and innovation, (5) political framework and innovation, (6) overall institutional context and innovation, (7) national innovation systems.

The first group includes articles on the impact of corruption on innovation ($n=13$). Studies about how corruption affects innovation related outcomes form the majority in this category. For example, Pirtea, Sipos & Ionescu (2019) found that corruption at governmental structures adversely affect innovation perspectives and lead to unfavorable innovation outcomes in developing countries. In another study, Spinesi (2009) argued that asymmetric information between political authorities and bureaucratic agencies diverts resources from innovative activities and feeds inequality. Anokhin & Schulze (2009) also states that control of corruption is positively related with entrepreneurship and innovation levels. On the other hand, Xie, Qi & Zhu (2019) claimed that corruption may have positive impact on firms' innovation results. They found that political instability and threats from the informal sector positively moderate the relationship between corruption and new product innovation in transition economies. Supporting this view, Krammer (2019) shows that bribery enables innovators in emerging markets to overcome bureaucratic obstacles, compensating for the lack of influential connections. He also finds that as the quality of formal institutions increase, the positive relationship corruption and innovation weakens. Other articles in this group present mixed results on the corruption-innovation relationship. While most of them exhibit positive relationships (e.g. Paunov, 2016; Athanasouli & Goujard, 2015; Barasa et al., 2017; DiRienzo & Das, 2015) others find conditional or no support (e.g. Rocha et al., 2019; Ervits & Zmuda, 2018).

The second group of articles examine the relationship between government support and innovation ($n=11$). While some of these studies relate active government support to higher level of innovation by private firms, others examine government's role as a provider of ground conditions for innovation. For instance, Kang & Park's (2012) research on Korean biotechnology firms shows that government support through project funding stimulates R&D efforts by private firms. Similarly, Chen & Yang (2019) found that government support in the form of R&D tax credits significantly increased firm level innovative inputs and outputs in Chinese companies. Alfranca & Huffman (2003) studied agricultural sector and found a strong association between government incentives and R&D investments. Zhu et al. (2019) point to the strong effect of government support on bricolage innovation in emerging markets. Egan (2013) focused on location choices for multinationals' R&D

activities and found that multinational firms are more likely to locate R&D activities in developing countries with a high level of government effectiveness. On the other hand, Carney & Zheng (2009) report that government incentives may generate conflicting demands on innovation and therefore stifle innovative activity. Szczygielski et al. (2017) draw attention to the type of activity that governments support and how it affects innovative outcomes. Their findings show that innovation performance increased in Poland when the government supported R&D activities and decreased when European Union grants attempted to upgrade human and physical capital. Overall, studies in this group demonstrate mixed results on the relationship between government support and innovation.

The articles in the third group focus on legal framework and its impacts on innovation (n=43). These studies are heavily invested in investigating how the strength of intellectual property rights regime (IPR) affect innovation in different countries. The effects of IPR on various innovation related variables have been studied, such as innovation performance, patent grants, technology diffusion or technology internationalization. For a majority of the studies on IPR, strong IPR regimes are a necessary condition facilitating innovation. For example, Sun et al. (2017) found that the performance of open innovation efforts is positively moderated by IPR enforcement. Furthermore, Bravo-Ortega (2012) showed that lack of intellectual-property protection channels the efforts of educated individuals into imitation rather than innovation. In addition, Ezzeddine & Hammami (2018) demonstrated the direct and indirect impact of IPR for human capital and economic development. In a study on innovation offshoring, Pisani & Ricart (2018) suggested that developed country multinationals are more likely to locate their innovation in emerging countries where IPR protection is stronger. IPR was also shown to influence firms' knowledge management strategies. Environments with less IPR uncertainty encourage firms to engage in knowledge appropriation through patenting whereas uncertain IPR conditions are more likely to support open science (Huang, 2017). On the other hand, contrasting views exist rarely on the relationship between IPR and innovation. While some scholars claim IPR is not the best way to protect innovation (Dosi, Marengo & Pasquali, 2006), others report it has no effect on innovation (Leger, 2005). Other studies on IPR are generally focused on contingencies that moderate the positive effect of IPR on innovation (e.g. Nagavi & Strozzi, 2015; Wu et al., 2019; Wang et al., 2020; Bukstein, Hernandez & Usher, 2019). The rest of the articles in this group examine the larger legal context which IPR is a part of. Legal origin of countries and its impact on R&D alliances (Dickson, Weaver & Hoy, 2006), technology diffusion (Assiotis, Zachariades & Savvides, 2015) and knowledge economy (Asongu, 2017) is an important line of inquiry. Other

notable research investigated the effects of current laws on patent applications (Blind, 2012), R&D intensity (Sun, Qu & Liao, 2018; Banerjee & Gupta, 2019; López-Iturriaga & López-Millán, 2017; Cai, Shen & Liu, 2016), innovation alliances (Malik & Yun, 2017) and technology adoption (Nguyen et al., 2017).

The fourth group is comprised of articles on various aspects of government regulation and their relationship with innovation (n=50). Studies on labor market regulation constitute a considerable body of research under this category. In this regard, negative views on employment protection, unionization and intensive regulation is shared by many scholars (Filippetti & Guy, 2020; Ferrett & Zikos, 2013; Barbosa & Faria, 2011). But some studies point to adverse effects of job precariousness and high unemployment on innovation levels (Kleinknecht, van Schaik & Zhou, 2014; Gatti, 2000). Other than labor markets, governments have a large repertoire of regulation methods which limit and enable innovation directly and indirectly. Regulatory pressures on environment (Marin & Zanfei, 2019; Yuan & Zhang, 2020; Wagner & Llerena, 2011), energy sector (Bradshaw, 2017; Garrone, Grilli & Mrkajic, 2018), automotive industry (Wang & Kimble, 2016; Helveston et al., 2019), telecommunications industry (Yoo, Lyytinen & Yang, 2005) and pharmaceuticals (Pyka, Buchmann & Vermeulen, 2017) significantly influence the type and quantity of innovations in these areas. Some studies that focus on overall regulatory quality show that governments can encourage innovative activity through tax policy (Jia & Ma, 2017; Gondim, Borini & Carneiro-Da-Cunha, 2017) and easing access to finance (Fombang & Adjasi, 2018; Cichy & Gradon, 2016; Abdallah, 2016; Bilal, Khan & Akoorie, 2016; Heredia-Perez et al., 2019). Regulations in corporate governance systems also play an important role in shaping firm-level innovation. Innovative activities such as R&D efforts suffer in countries with high levels of shareholder protection (Beloc, 2013; Malen & Vaaler, 2017; Rapp & Udoieva, 2017; Munari, Orieno & Sobrari, 2010). Articles on regulative framework constitute the largest group in the sample. There is an overall agreement on governments' important role in facilitating an innovation inducing environment through the use of various regulative methods.

The fifth group of articles are about the relationship between political framework and innovation (n=13). Political stability and level of democracy are the main variables under concern in this group. Their effects on innovation outputs, innovation activity and radical/incremental innovation constitute the main topics of these articles. For example, Ho et al. (2018) report that political institutions indirectly affect innovation through stock market deepening. Kim (2011) considered different dimensions of democratic institutions such as parliamentary and presidential systems, electoral systems, federal and unitary systems and found that level of democracy

matters in public R&D spending. Comin & Hobijn (2009) focused on the influence of lobbying in different countries and concluded that lobbying is an important barrier to technology diffusion. In a similar vein, studies on political stability exhibit mixed findings. In a comparative study on national technological performance, Coccia (2017) suggested that leadership-oriented governments are a contributing factor to technological innovation and socioeconomic growth. Nam et al. (2014) similarly reported significant positive effects of political stability on cross-national innovation. Kraft & Bausch (2018) pointed to the importance of managerial social networks in the absence of strong political institutions. To sum up, findings about the impact of political institutions show that political stability is a significant variable in predicting innovation. However, whether democracy or another political system is better for innovation is inconclusive.

The sixth group of articles encompasses overall institutional context as an antecedent to innovation (n=51). One important subgroup of articles focus on institutional distance between countries. Defined as the extent of similarity between the institutions of two countries (Xu & Shenkar, 2002), institutional distance have been argued to affect innovative collaboration (Ma, Kaldenbach & Katzy, 2014), offshoring of innovations (Lorenz, Clampit & Ramsey, 2018), R&D alliances (Choi & Yeniyurt, 2015), innovation transfer (Bezerra & Borini, 2015) and new product introduction (Wu, 2013). On the other hand, most of the studies in this group compare different institutional contexts in terms of their effects on innovation related aspects. Two measures are commonly used to assess institutional quality: Worldwide Governance Indicators (WGI) of the World Bank and the Economic Freedom Index (EFI) of the Heritage Foundation. These measures cover multiple dimensions of formal institutions including regulation, legal and political framework, corruption, government effectiveness, financial freedom etc. The underlying idea behind both measures is that some countries have more quality institutions that support innovation. Many articles that utilize WGI and EFI report positive relationships between institutional quality and innovation intensity (Silva & Plekhanov, 2018; Yi et al., 2020), knowledge creation (Boudreaux, 2017; Kwan & Chiu, 2015), number of patents (Phuc Canh, Schinckus & Thanh, 2019; Tebaldi & Elmslie, 2013), R&D intensity (Alam, Uddin & Yazdifar, 2019; Wang, 2013), R&D productivity (Nordin & Nordin, 2017), R&D capability (Chen, Li & Shapiro, 2015), technology licensing (Dohse, Goel & Nelson, 2019) and innovativeness of nascent entrepreneurs (Fuentelsaz, Maicas & Montero, 2018). Among other studies that investigate overall institutional quality, institutional contexts have been linked with number of patents (Wu & Park, 2019; Yang, Liu & Cheng, 2016; Wu et al., 2016; Chang, Chung & Mahmood, 2006; Wu, Wu & Zhuo, 2015), innovation capabilities (Gölgeci et al.,

2019), technology diffusion (Mignon & Bergek, 2016), technological development (Pattit, Raj & Wilemon, 2012; Pereira & Plonski, 2009), innovation orientation (Chittoor, Aulakh & Ray, 2015) and innovative collaboration (Love & Roper, 2004). Lastly, a few articles in this category investigated institutional change as the main catalyst of innovative processes. For instance, Delmas (2002) reported the negative effect of institutional rigidities on innovation outputs while Liu et al. (2019) concluded that R&D alliances are a useful method for attenuating this effect. Others examined economic transformation processes of different countries and tracked the co-evolution of institutions with innovation patterns (Choung, Hwang & Song, 2014), innovative behavior (Wu & Huang, 2008) and R&D investments (Choi et al., 2014). In conclusion, while most of the research on overall institutional context reported positive relationship between institutional quality and innovation, a few studies evaluated innovativeness and institutional profile as dynamic processes that evolve together.

The last group of articles include national innovation systems (NIS) related research (n=24). Rooted in the varieties of capitalism theory (Hall & Soskice, 2001), NIS approach posits that each country has an innovation system with different characteristics. National innovation systems include institutional aspects as well as industrial organization, government policies and political norms (Unger, 2000). NIS approach institutions as an integral part of innovation ecosystems. Expectedly, NIS related research generally includes case studies that compare and contrast countries in terms of innovation trajectories (Fuller, 2009; Xu & Chi, 2009; Gray, Malla & Phillips, 2006; Walsh & Le Roux, 2004), innovation performance (Rowe, 2018; Roper & Arvanitis, 2012; Malik & Huo, 2019; Malik, 2017; Guan & Chen, 2012; Gittelman, 2006), technological development (Ibata-Arens, 2008; Inzelt, 1996), technology adoption (Lloyd & Payne, 2019), technological specialization (Vertova, 2001) and radical innovation (Meelen, Herrmann & Faber, 2017). Historical processes in accumulating innovative capabilities, comparison of national innovation systems and catch-up potential of developing countries were the main themes under scrutiny in this group. In the extant literature, national innovation systems are generally evaluated in a framework provided by the variety of capitalism approach (Hall & Soskice, 2001). In this framework, liberal market economies are expected to produce radical innovations while coordinated market economies are limited to incremental innovations (Hall & Soskice, 2001). But the heterogenous contributions from the literature show that context specific characteristics should be taken into account. For instance, findings from comparative studies show the advantages of coordinated or mixed market economies over liberal markets in published science (Malik & Huo, 2019) and transformation of science into export products (Malik,

2017). Meelen, Herrmann & Faber (2017) also add to this type of studies by demonstrating the weakness of varieties of capitalism in explaining economic specialization patterns. Therefore, country specific factors such as historical co-development of institutions with innovative capabilities attracted considerable interest in the literature. In a single case study on the Canadian canola industry, Gray, Malla & Phillips (2006) show that institutional deficiencies may be overcome by government support in the earlier phases of new product innovation but failures in property rights system require the development of new institutions in the long-run. In a comparative analysis that covers the last hundred years, Vertova (2001) argues mismatch between institutions and the prevailing technological paradigm lock countries into inferior technological paths. Walsh & Le Roux (2004) compared pharmaceutical innovations in USA and France and found important institutional differences that contributed to success. Xu & Chi (2009) show that differences between Taiwan and China in terms of institutional arrangements determine the effectiveness of R&D collaboration. Koh (2006) examined Singapore's efforts to become an innovation-based economy and identified key challenges such as policy coordination between government agencies. In sum, many studies from the literature render the assumptions of varieties of capitalism inconclusive. Therefore, the argument that liberal market economies have more developed institutions supporting innovative activity also merits questioning.

CONCLUSION

Considering the literature on institutions and innovation, some important gaps need to be addressed in future studies. The first gap pertains to the operationalization of the innovation concept. Most of the selected articles measure innovation by its inputs or outputs. Only a very few studies investigated innovation as a process. It is a clear result of this literature review that there is a lack of studies which utilize more comprehensive measures to operationalize innovation. The second gap is about sample selection. Most studies are limited in terms of the number of countries they examine. Including more countries will increase the representation of different contexts in sample, as well as the generalizability of future studies.

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Chapter 22

Prescriptive Strategic Management Schools Revisited: A Competency-Based Perspective

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Introduction

The term strategy is etymologically derived from the word "strategos", which means general in Ancient Greek. Therefore, military metaphors are often used when defining strategy. Today, frequently used terms such as "mission" and "competitive advantage" also come from military roots. In the strategic management literature, the strategy is expressed as an action plan directed from top to bottom. In the firm; different studies have been conducted on who will shape the strategy, the scope of the strategy, the focus of the strategy, the starting point of the strategy, and the philosophy underlying the strategy. On the other hand, each of the studies has the idea of sustainable competitive advantage, reaching long-term goals, and creating value for customers and stakeholders (Porter, 1985). The idea that organizations reach their goals with a "one" correct approach does not reflect a realistic idea (Mintzberg, Ahlstrand & Lampel, 1998). The strategy is associated with the perceived environment and organizational situation. Whatever the focus is on, the strategy is developed in accordance with that issue.

According to the story of blind men describing an elephant by touching it; the blind men guess according to whatever part of the elephant it touched. A blind man likens the elephant to a snake because he has grabbed his trunk. Another blind man compared the elephant to an ancient tree when he caught his knee. Consequently, the same situations may be interpreted differently. Different strategies are often shaped by differences in interpretation and concentration (Mintzberg et al., 1998). The Design School, the first of ten schools, sees the strategy formulation process as conception. The Planning School considers the strategy formulation process as a formal process. The positioning school, the third and final prescriptive school, defines strategy formulation as an analytical process. Like the three prescriptive schools, the focus is on "how the strategy should be formulated" and not "how the strategy should be". The nature of the other six schools is descriptive. The first descriptive school is the Entrepreneurial School and the strategy formulation process is approached as creating a vision. The Cognitive School focuses on the fact that the strategy formulation process should be a mental process. According to the learning school, the strategy formulation process is related to the emerging processes. The Power School emphasizes that strategy formulation should be negotiation based. The Cultural School focuses on the strategy being created by the collectivity. The Environmental School emphasizes that the strategy should be shaped as a result of reactive processes. The last school is the Configuration School, which sees strategy formulation as a transformation process (Mintzberg et al., 1998).

In the book, which lists ten different strategic management schools stemming from these differences, the first three schools are called prescriptive schools which are the subject of this study. While expressing our fresh proposals on the approach used to prescriptive strategic management schools, the strategy would be interpreted from a managerial competency perspective. However, when developing a competence-based classification, each school can be associated with all competency types. For this reason, competency-based classification attempt is not a classification approach with clear cut boundaries. Rather, it is a classification method that requires blurred lines to distinguish schools. It is possible to associate the schools considered in the study with all the competencies to be stated because of this uncertainty. However, the classification would be made based on managerial competence, which relatively stands out as more dominant than other competencies. If schools were classified according to the way they focused on strategy and if the strategies that firms build on their dynamic capabilities (Barney, 1991) were vital, it would also be possible to classify them based on the competencies they focus on.

The aim of this study is to revisit the prescriptive schools that we consider to be related to managerial competencies and to classify the managerial competencies that the schools are related to as primary and supportive.

1.Competency-Based Approach

There are competency-based studies conducted in various periods in the strategic management literature (Barney, 1991; Lado et al., 1992; Prahalad & Hamel, 1990; Selznick, 1957). Studies have shown that while the manner of disclosure of competence varies between studies, there are no significant differences between studies about the company's importance of competency-based decisions. As a result, the historical development and evolution of competency-based approaches are shown in Figure 1.

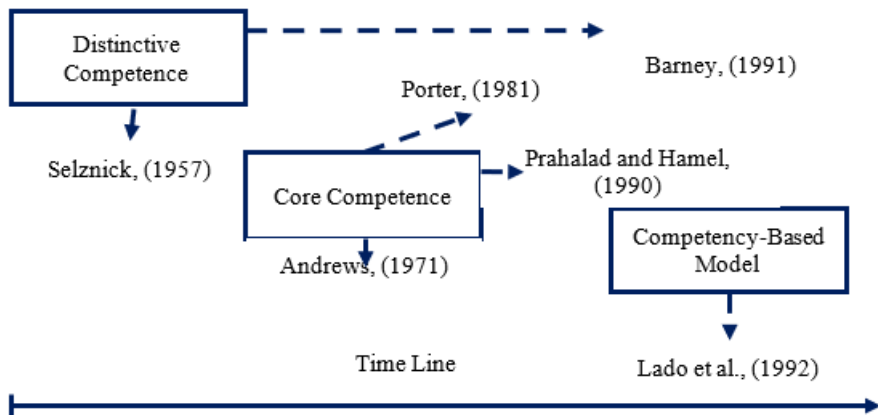


Figure 1: The Evolution of “The Concept of Competence” In Strategic Management.

The Industrial organization model accepts competitive advantage as they struggle to gain a superior position in the market compared to the competitors (Lado, Boyd & Wright, 1992). In addition to the industrial organization approach focuses on adapting to the industrial environment rather than resources and capabilities. Being able to respond to the requirements of the market ensures the survival of the firm (Lado et al., 1992; Porter, 1981). In the assumptions of industrial organization where resource mobility is not prevented; industry rivalry, threats of new entrants, threats of substitute, bargaining power of suppliers and bargaining power of customers are considered. In this context, a sustainable competitive advantage can be achieved with three different approaches (Porter, 1980); the first one is to produce lower-cost products that are designed without any differ from substitutes; the second approach is to differentiate the product so that consumers are willing to pay higher prices for the product and the third one is to apply one of the first two approaches, with a focus on a product segment, consumer group, or geographic region.

According to the resource-based approach, firms' sustainable competitive advantage depends on their resources and distinctive capabilities (Selznick, 1957). The competitive ability of companies is associated with the cost, quality, and market performance of their existing products in the short term. However, for companies to achieve a sustainable competitive advantage in the long term, they must create a low-cost product derived from their core competencies (Ghemawat, 2002; Prahalad & Hamel, 1990). Otherwise, competitors who survive the first wave of global competition may show similar performances in terms of quality and cost (Mooney, 2010; Prahalad & Hamel, 1990). In this

context, first of all, it is necessary to explain the concept of core competencies expressed by Andrews (Mooney, 2010).

According to Andrews (1971), core competencies refer to what a firm can do best. An important contribution to the Core Competence Concept was made by Prahalad and Hamel. In their studies, they stated that the most important condition for companies to compete is their core competencies (Prahalad & Hamel, 1990). Core competencies are not diminished or depleted when used like physical resources, rather they become sharper and stronger as they are used. Besides, they are an integrative obstacle to the breakdown of the firm (Prahalad & Hamel, 1990). It is a useful instrument for companies in creating corporate strategy. In this context, the strategy can be shaped by the expertise of the employees or the power of having a resource that is rare in the market (Mooney, 2010).

The concept of distinctive competencies, which are different from core competencies but dealt with similar issues, was first used by Selznick (1957) in the strategic management literature (p. 50). Another contribution to the concept in the following years was made by Ansoff (1965). Ansoff evaluated the distinctive competencies as a whole consisting of four sub-dimensions. These; The physical capabilities of the firm, the competencies of its employees, managerial competencies, and organizational competencies (Hashim, 2000). Distinctive competencies should be easily recognizable by customers and competitors. In addition, for the firm to achieve a long-term sustainable competitive advantage, the competencies must be rare and difficult to imitate (Barney, 1991). Otherwise, competitors will be able to quickly close the difference with the company.

In this context, it is agreed on an umbrella competence perspective that includes the internal perspective of the resource-based view (Barney, 1991), and the external perspective of the industrial organization and environmental models (Barney, 1991; Porter, 1981). This holistic structure, which will be handled with the Competency-Based approach, promises a sustainable competitive advantage to the company. In this context, the scheme of the concept is shown in Figure 2. As shown in Figure 2, the firm competes in a sustainable competition through the competencies of four important elements that differ from each other in terms of their characteristics.

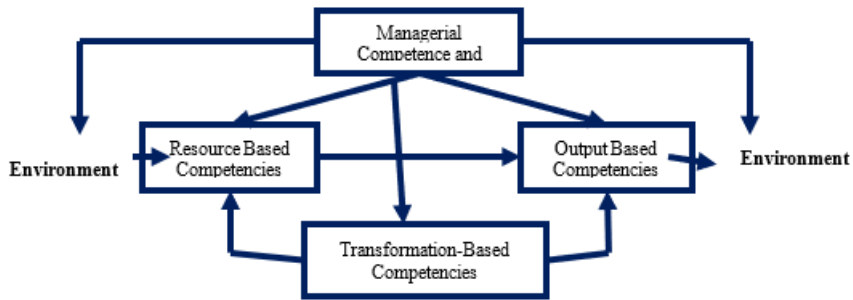


Figure 2: Competency-Based Model of Sustainable Competitive Advantage
Lado et al.,1992:82

1.1. Managerial Competence and Strategic Focus

The managerial competence of the firm is essential for its success. This competence plays an important role in different fields within the organization. One of them-maybe the most important one- is the long-term success and survivability of the firm. Hence, managerial approaches affect the firm's long-term successes and future positions. All sharing of ideas and decision-making processes of the companies on what their route will be are related to these managerial approaches and competence. Westley and Mintzberg, 1989). The management style of the companies and the merit of their managers directly affect the performance of the firm (Taylor, Cornelius & Colvin, 2014; Wang and Howell, 2010). Managerially, it is expected from the leader to get maximum efficiency from his/her followers and to make a high contribution to the realization of the company's mission. In addition to all these, it is necessary to realize three conditions to reach the strategic vision. First of all, managers are expected to be experienced so that the manager improvises when necessary to help the firm achieve its goal. Secondly, the core values of the firm must be well understood. The last one, stakeholders need to grasp the strategic vision and support managers (Westley & Mintzberg, 1989).

Management skills are associated with creating a vision for the company. Creating a vision for the firm provides access to strategic resources and enables the firm to achieve higher returns than its competitors (Lado et al., 1992). However, managers are not only responsible for creating a vision for the company. Another responsibility attributed to them is that they access the tacit knowledge available in the market and anticipate how the market will take shape in the future (Barney, 1986b). Thus, managers will play an active role in their firms' obtaining higher returns than their competitors with the asymmetric information they have acquired from the environment.

Managerial competencies also include incorporating the strategic resources needed by the firm to achieve sustainable competitive advantage. For companies, resources should not be considered as only the finished and semi-finished products they need in their production (Wernerfelt, 1984). Detailed information on the diversity and characteristics of resources will be explained in the resource-based competencies section. According to Figure 2, the arrow that combines managerial competencies with resource-based competencies shows the managerial effects on the acquisition and mobility of strategic resources that give the firm a competitive advantage (Lado et al., 1992). Managerial competencies and strategic focus not only affect resources but also affect the transformation-based competencies associated with the internal processes of the firm (Lado & Wilson, 1994).

According to Porter, the nature of competitive strategies is to be different from rival firms (Porter, 1996). Creating and managing these differences is an output of managerial competencies. Managers decide what to differentiate in the internal processes of the firm (Shrivastava & Nachman, 1989). The arrow is shown in Figure 2 that goes from managerial competencies and strategic focus to transformation-based competencies expresses this effect. In Figure 1, the arrow that goes from managerial competence and strategic focus to output-based competencies shows the effect of the synergy created in the internal processes of the firm on external actors (Lee, Lee & Garrett, 2017). In addition, the two arrows that come out of managerial competence and strategic focus and go to opposite sides show the impact on the environment. While the first of these shows the effect of managerial competence on the environment, the other shows the feedback flow required for the development of managerial competencies.

1.2. Resource-Based Competencies

Edith Penrose's book "The Theory of the Growth of the Firm", in which the growth processes of companies are explained in detail, was the pioneer of resource-based view theory. Penrose expresses that it is necessary to have differentiating and specialized resources to market different products from those of competitors (Burvill, Jones-Evans & Rowland, 2018). These resources provide the opportunity to create a learning climate within the firm. Thus, the company will grow and become unique with learning-based acquisitions (Penrose, 1959). About a decade later, Andrews (1971) proposes that the firm should strategize by examining its strengths and weaknesses, which is the basis for Wernerfelt's (1984) explanation of the resource-based view.

According to Wernerfelt (1984), resource refers to all tangible and intangible assets that affect the firm's strength or weakness. The heterogeneity and

immobility of resources make competition conditions more difficult. Therefore, those who own the resources can gain a sustainable competitive advantage (Barney, 1991). Porter focuses on product differentiation or reducing production costs to explain this phenomenon (Porter, 1980). Of course, "For the firm, resources and products are two sides of the same coin" (p. 171). However, resources are not only about production and product but also people, experience, learning ability, brand equity, management wisdom (Wernerfelt, 1984). According to Figure 2, Resource-based competency linked to output-based competence. What makes the firm competitive is about being able to produce innovative, original, or rare outputs. For such specific outputs, it is necessary to have long-term use of specific resources and this will create a competitive position for the firm (Lado et al., 1992). In order to achieve these outputs, essential and critical resources must be transformed in an innovative way. This relationship is shown in Figure 2 by the arrow linking transformation-based competency to resource-based competence (Armstrong & Shimizu, 2007). Some of the valuable resources that the company needs are created from its internal dynamics, according to Figure 2, an arrow is coming from the environment towards resource-based competence, some of them are added to the company from the environment and used synergistically with the internal dynamics, as shown (Barney, 1991).

1.3. Transformation-Based Competence

The firm uses generic competitive strategies to achieve a sustainable competitive advantage (Porter, 1980; 1985). The first of these strategies is the overall cost leadership strategy and the second and our focused one is the differentiation strategy. According to the strategy, the company makes innovative and creative transformations in its internal and external processes and offers consumers products that are differentiated from its competitors. At the basis of generic strategies is the idea of the company to transform in all its processes (Porter, 1980).

To achieve sustainable competitive advantage, it is necessary to take strength from transformation-based competencies. Supporting an organizational culture in which innovative thinking and being creative are supported within the company will positively contribute to transformation-based competence (Barney, 1986a). Morgan (1986) describes two notable roles of organizational culture, which play a critical role in organizational efficiency and effectiveness: "following rules" and "enactment." A culture based on the following rules; focuses on organizational efficiency, sustainability, and predictability. To achieve these elements, the emphasis is placed on establishing cultural rules or social norms that each

individual must adhere to. The enactment-based view, on the organizational culture, argues that individuals can create, regulate and implement their organizational cultural values and norms with a proactive attitude (Lado and Wilson, 1994; Miller, 1993). If the organizational culture supports innovation, entrepreneurship, organizational learning, and creativity; as shown in Figure 2, transformation-based competence can directly affect both output and resource-based competencies (Lado et al., 1992). Because those supported elements will play an active role in source selection and product differentiation. Thus, companies take away the chances of their competitors to imitate themselves over time (Barney, 1991).

1.4. Output-Based Competencies

Nowadays, reaching critical information has become much faster than in the past with the increasing competitive intensity and developing communication tools. Under these circumstances, companies create value for their customers. However, value is not just a product or service designed around the needs of customers. It also includes the values of the firm's intangible assets. Intangible assets are the values that the firm has, which allows it to gain a relative advantage over its competitors and are related to the perceptions of its customers. Brand reputation, product quality, product reputation, after-sales service quality, and dealer network are examples of intangible values created for consumers. In Figure 2, the arrow moving from output-based competencies towards the periphery expresses the direction of influence of intangible values.

To achieve sustainable competitive advantage, companies may need to create value for consumers by using their intangible assets. For instance, concern for after-sales customer relations and customer service; has attracted great attention (Phillips, Dunkin & Treece, 1990; Lado et al., 1992). Companies such as American Express and American Airlines have achieved sustainable reputation and success by creating and managing the perception of superior customer service (Phillips et al., 1990).

So far, the fundamentals of the competency-based theory have been explained. In the following section, Mintzberg's prescriptive schools of strategic management will be briefly explained, respectively. Then, these prescriptive schools will be interpreted from the perspective of Managerial Competence-Based Theory.

2. Managerial Competency-Based Revisiting of Prescriptive Schools

Design, planning, and positioning schools, which are called prescriptive schools by Mintzberg et al. (1998), can be associated with more than one

competence. It seems unlikely to clearly separate all competencies with which they are related at different levels. In this classification where the boundaries are ambiguous, only the relations with managerial competencies will be evaluated for this study.

2.1. Prescriptive Strategic Management Schools and Managerial Competence

Strategic management schools are classified as prescriptive and descriptive. While making this classification, an evaluation is made according to the company's strategy formulation approach (Coffie and Blankson, 2016). The design school is the first descriptive school to be expressed in the study. (Lynch, 2011). Primary managerial competencies and supportive managerial competencies that we think are the aspects of the school's approach will be expressed. Afterward, the same process will be carried out for the planning school and the positioning school.

The Design School: The oldest roots of the school can be traced back to the works of Selznik (1957), Chandler (1962), Learned, Christensen, Andrews, and Guth (1965), and Andrews (1971). At the core of the idea of "strategy as design" is to create synergy between external opportunities and internal capabilities. The external environment is considered in terms of key success factors, while the firm's internal strengths and weaknesses are considered in terms of distinctive capabilities (Selznik, 1957). It is a matter of leveraging internal forces to take advantage of external opportunities, avoid threats and compensate for weaknesses (Learned et al., 1965). The ethical values of the society and leadership approaches are used in formulating strategies and choosing the best among them. However, once the strategy has been formulated, it is presumed that it will be implemented intact. So that the dominant strategic management approach of the '70s is as mentioned and it is observed that its implicit effect in practice persists even today (Sarvan et al., 2003). Briefly, the fulfillment of the basic steps of the SWOT analysis is correlated with an effective strategy formulation process (Mintzberg et al., 1998). The assumptions that cause us to take managerial competencies into the root of the design school are stated below.

- A strategy that allows for strict control after a deliberate thought process should be established. Those who create and control a deliberate strategy are planners with management roles, who believe that deliberate strategies based on external factors and internal processes will achieve good results (Chandler, 1962).
- According to Hayes (1985), the responsibility for the firm's whole strategy and adaptation process rests with the top management. In addition to this assertion,

Andrews claimed that the CEO had been the architect of the organizational goals. "A strategist is also the top manager!" The roles of the managers are explicitly specified in this phrase. In this situation, it is not too difficult to deduce that the obligation rests with the managerial competence.

- The strategies depend on the situations of the firm and the creative results of the process relate to the degree of use of the distinctive competencies of the company (Karlsson and Skalen, 2015; Selznik, 1957). It is the responsibility of the manager to assess the situations accurately and the manager who can do this better than his competitors would become one of the distinctive competencies of the firm.
- Strategies should be for a specific field or topic. In this way, the strategy, which will be related to the process rather than the content, will provide more value to the firm (Mintzberg et al., 1998). The assessment of all this particular field or topic is related to the competence of the strategist. However, the strategist is also the manager of the firm, in which case the more competent the top manager is, the more successful the strategy would be.
- Synergy would be creating by individuals who work with together for the reach organizational goals. In addition, managers who leads organization not only make policy and structure, but they also create social structure that fired up the synergy (Mintzberg, 1990).

As described above, the design school is based on managerial competence, dividing doers and thinkers into two, and defining major responsibilities and roles for managers in formulating and implementing strategies.

The Planning School: The planning school, which was first mentioned in Ansoff's (1965) book "Corporate Strategy", developed simultaneously with the design school, and these two schools are similar in most of their assumptions (Wilson, 2000). Strategic planning is a formal process according to the approach of the planning school, which was prevalent in the 1970s as was the design school (Lynch, 2011). Strategy arises from formal analysis, designed with a long-term approach. Ansoff (1965) suggests that long-term planning is formed by analysis under partial uncertainty and that the strategy has been formulated within that specific situation (Mintzberg et al., 1998). The planning school has been categorized as prescriptive by Mintzberg et al. (1998) and classically by Whittington (2000). As analyzed in the scope of a competency-based approach, managerial competencies are considered to be at the root of the planning school. The assumptions that cause us to take managerial competencies into the root of the planning school are stated below.

- Formal analyses are carried out by trained and professional planners. However, all responsibility for long-term planning and strategy

determination lies with the CEO. The conclusion has been drawn from the fact that the top management was responsible for all the plans of the organization (Mintzberg et al. 1998).

- Budgets, programs, and implementation plans are prepared. All these different analyzes and plans are presented to the top management by professionals. The crucial point is based on the manager's ability to synthesize all analyzes (Lynch, 2011).
- Ansoff (1965), divides the structure of decisions in the enterprise into three groups: strategic, administrative, and operating. Strategic decisions have great consequences for the company and are the responsibility of the top management. Administrative decisions follow strategic decisions. Operating decisions are executed in line with Administrative decisions. As can be seen, all decision processes are associated with each other and the most critical task is assigned to the manager (Sarvan et al., 2003).

As can be seen from the statements about the planning school, all crucial decisions concerning the future of the company are left to the responsibility of the managers. The strategy agreed upon by the managers is systematically applied without any change (Mintzberg et al., 1998; Whittington, 2000). Consequently, it is inferred that managerial competence resides at the root of the planning school.

The Positioning School: The positioning school is rooted in Michael Porter (1980) and his work "Competitive Strategy: Techniques for Analyzing Industries and Competitors". The positioning school accepts to a large degree the fundamental assumptions of the two prescriptive schools previously mentioned, but unlike other schools, the school focuses on what the strategy will be. With a very fundamental and revolutionary notion, Porter has described generic competitive strategies (overall cost leadership, differentiation, and focus) that can be established for various circumstances and objectives (Porter, 1980, 1985, 1996). The concept of strategy at the roots of the school is directly related to the position of the firm in the market (Sarvan et al., 2003). According to the positioning school, the market is an economic and competitive place. In this sense, the organization should choose a strategy appropriate to the position that it can counter the threats posed by existing rivals and potential entrants to the market (Allen and Helms, 2006). The strategies should also help the firm to deal with the threats from suppliers, buyers, and substitutes. Besides, it should make it possible for the company to achieve positions that promise sustainable competitive advantages (Mintzberg et al., 1998). As analyzed in the scope of a competency-based approach, managerial competencies are considered to be at the

root of the positioning school. The assumptions that cause us to take managerial competencies into the root of the positioning school are stated below.

- According to the position school, to gain a sustainable competitive position, a detailed analysis of the market and the product is needed. When creating a strategy, it is left to managers to determine what will be the element (product, market) that will be at the core of the decision-making process (Mintzberg et al., 1998).
- The strategy comes before the structure, according to one of the other assumptions of the position school. In this context, the construction of an appropriate structure, following the selection of the generic strategy, exposes the responsibility of the top management. Failure to generate a strategy-compatible structure would minimize the functionality of the strategy chosen as a result of both analysis and reports (Chandler, 1962; Allen and Helms, 2006).
- Analyses prepared for the market provide a ton of information but do not make it possible to foresee everything under uncertainty. Although the level of market uncertainty is not very high relative to the position school, the responsibility for evaluating the analysis and making the final strategic decision under uncertainty lies with the managers (Stonehouse and Snowdon, 2007).

The choice of generic strategy that will allow the firm to achieve competitive positions is fed by analysis, but the final decision is directly related to the manager's correct assessment of the relatively uncertain environment. As a result, it was concluded that just like the other two prescriptive schools, managerial competence is at the roots of the position school.

Based on the above, the basic principles of the three managerial competence schools are shown in Table 1.

Table 1. The Basic Principles of The Three Managerial Competence Schools (Sarvan et al., 2003).

Management Schools	Basic Concepts	Strategy Interpretation	Competence Focus
The Design School	Focus on being fit. To identify distinctive competencies. To realize the expectations of the environment. SWOT Analysis.	The strategy should be determined in a deliberate. The strategy is determined and ready to implement without any change. The strategy is defined in its purest form by the managers.	Managerial Competence
The Planning School	Synergy. Programming. Budgeting. Timing.	The strategy is created after long-term planning. The responsibility for the development of the strategy lies with the top management. The strategy developed is mechanical.	Managerial Competence
The Positioning School	Generic strategy. Strategic group. Competition analysis. Experience curve. Find the niche.	The strategy formulation process is to choose one of the generic positions based on analytical calculations. The dynamics of the market and the conditions of competition should be taken into account during the development of the strategy. It is the responsibility of the manager to filter lots of details in the analysis and to select the best strategy.	Managerial Competence

As shown in Table 1, the process of determining the strategy for all three schools is left to the responsibility of the top managers. What is implied by the responsibility of the manager, though, is the direct involvement and constructive role of the manager in the strategy formulation process. For instance, it is the managers who analyze the strengths and weaknesses and set the strategy in the design school. In addition, as shown in Table 1, examining all the analyses made by the analysts and making the final decision is a responsibility given to the managers of the planning school. Finally, as shown in Table 1, the choice of the firm's competitive strategy and its competitive position in the market is left to the responsibility of managers.

Discussion

Prescriptive school approaches have received some criticism, according to Mintzberg's categorization. In fact, strategists who desire to pursue the core development stages are considered to disregard the organizational structure's lowest levels. However, those strategists are also organizational managers, and it is assumed that knowledge is shared with the whole company based on managerial competence (Lado et al., 1992). Communication with the internal and external environments of prescriptive schools is thought to be limited, at least throughout the strategy creation phase. Therefore, the strategies developed to make no contribution to incremental progress and are unaffected by any changes. The structure of the current situation is determined as photographed. Then it is said that mold strategies are developed in accordance with the established structure. However, it is the managers that develop the strategy, and people in management are always learning and evolving. This circumstance is analogous to the organizational learning that serves as the foundation for another school (Mintzberg et al., 1998). Within this framework, it is determined that the managerial-based approach, which interacts with both the internal and external environments, is unaffected by identical criticisms. Because the assumptions that companies are closed systems are inaccurate, managers may be influenced by their environment in a variety of ways as part of this open system. The manager's cognitive development stresses that the created competitive strategy is cognitively more perfect than the previous strategy and follows the current one (Lado et al., 1992). **Table 2.** shows the distinctions between the Prescriptive School and the Managerial Based Approach.

Table 2. Responses to criticism by the Prescriptive School and the Managerial Based Approach

	Prescriptive School Perspective	Managerial Based Approach
Interaction with both the internal and external environments	Restricted during strategic planning	Managers that keep an eye out for competitors and stakeholders
Response time to change	Rigorous adherence to well-thought-out strategies	The manager, who is constantly on the alert for challenges, is adaptable to both internal and external changes.
Fundamentals of strategy	Calculations are intensive, and strategies are created using exact patterns.	The manager, as the agent of change and synergy, changes the intended strategies in response to changing circumstances.
Integrating the strategy within the organization	Matrix strategies are created.	By forming teams and persuading individuals via various leadership styles.
The assumption of tacit knowledge	Access is difficult and necessitates a detailed plan from the outset.	With the evolving technological infrastructure, access and storage are simple.

Another criticism leveled with prescriptive schools is that they waste a lot of time on planning and assessments. According to the popular view, the attention placed on process and analysis overshadowed individuals' strategic understandings. However, under the managerial-based method's strategic perspective, it is highlighted that the manager is a change and synergy agent in relation to organizational processes. In this context, the process of strategy generation also refers to the development of interpersonal connection and strategic knowledge in the organizational structure, as well as its subsequent sustainability (Stonehouse & Snowdon, 2007).

Another issue that has been raised is the incompatibility between the planners and those who conduct the operation. According to prescriptive schools, managers create matrix strategies, and that strategy propels the organization to success, but the strategy's implementation is inadequately embraced by individuals who carry out the operation. When seen in this light, the managerial-based approach provides a response to this challenge through leadership approaches and the phenomena of teamwork. It is the manager's role to transform

individuals and implement the dynamic strategy that has been developed. It is the manager's and team leaders' obligation to unfreeze established habits, then adopt a new method and freeze it again. (Lewin, 1947).

Another criticism is that strategy makers tend to stick to the first strategy that emerges after a brief time of intensive contemplation. However, owing to the nature of the process, managers are exposed to more intense information over time, according to the managerial-based approach. This necessitates a revision in the initial strategy or small enhancements. Furthermore, the responsibility for creating synergy and value by modifying the organizational process highlights the need for the process to be dynamic and adaptable (Karlsson & Skalen, 2015).

Some have argued that sticking to the forecast provided by a single assumption would result in failure. However, the situation for the managerial-based strategy appears to be more promising. Organizations, in particular, get clearer and easier access to market, competition, and consumer information. In this context, firms are closing the vertical hierarchical distance for flexibility and quick response power, while managers' communication abilities are growing. In this situation, managers who receive feedback from a greater number of sources can perform better predicting. Furthermore, the plan they developed will be swiftly amended with data updates and details, and it will be easily understood by all organizational members.

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Chapter 23

On Auto-Affection, Memory and Performing Objects

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This article aims to reformulate the notion of performativity with the objective of theorizing thought as an intensive performance of space-time using Gilles Deleuze's conception of auto-affection and vitalist philosopher Henri Bergson's notion of memory. My rethinking of the notion of performativity is rooted in the conceptual triad of formation (as the inside folds out), in-formation (as the outside folds in) and per-formation (continuous folding and unfolding of space-time), the final term being my own, individual contribution. From this perspective, I expand the Deleuzian theory of the fold by arguing that performativity maintains a critical place in the relationship between auto-affection and the folding of space-time. However, to fully grasp the implications of relating auto-affection to the act of folding via the notion of performativity, one needs to delineate the way in which memory functions in detail according to the two aforementioned philosophers.

The proposed thesis is twofold. First, the folding of matter (outside) into mind (inside) implies the material determination of a concept (what we call *in-formation*), and that the folding of mind (inside) into matter (outside) implies the conceptual determination of matter (or what we may call *formation*). The manner, then, in which memory deploys itself in the act of folding is performative (indeed, *per-formation*). Freed from its conceptual and material determinations, space-time itself unfolds while unfolding itself. It is from this perspective that I will name the folding of space-time as per-formation. Second, space-time purely performs auto-affection. The relationship between auto-affection and the fold consists in memory; without recourse to the concept of memory, one cannot theorize performativity as it relates auto-affection to the folding of space-time.

In his commentary on Deleuze's notion of the fold, Alain Badiou (1994) addresses how the fold works with regard to the reciprocal determination of interiority and exteriority, with a particular focus on the relationship between mind and body: "Deleuze intends to follow Leibniz in his most paradoxical undertaking: establish the monad as 'absolute interiority' and go on to the most rigorous analysis possible of the relations of exteriority (or possession), in particular the relation between mind and body" (61). A few pages later, Badiou adds: "The fold is an adequate image of the incomprehensible tie between thought and body" (64). This notion of the fold as the link between mind and body relates the fold to Deleuze's discussion of the reversibility of inside and outside spaces. Badiou formulates this reversibility in the following terms: "Treating the outside as an exact reversion, or 'membrane,' of the inside, reading the world as a texture of the intimate, thinking the macroscopic (or the molar) as torsion of the microscopic (or the molecular): these are undoubtedly the operations that constitute the true effectiveness of the concept of Fold" (61). The act of folding

thus bears upon the reciprocal determination of inside and outside spaces. The inside (mind) is the reversion of the outside (matter), and the outside (matter) is the reversion of the inside (mind). This philosophical language clearly explicitly engages a spatial register whose movements create temporal coordinates. Moreover, the association of mind and matter with outside and inside forms a spatio-temporal performance that exceeds its conceptual and material armature by means of their ever-shifting dynamism. Mind and matter are thus neither spatio-temporal concepts nor materializations in Deleuzian philosophical discourse but rather are performances of difference and differentiation.

In *Foucault*, Deleuze (2009) describes this inside-outside reversion in terms of the interaction between mind and matter:

Foucault is not only an archivist in the manner of Gogol, or a cartographer in the manner of Chekhov, but a topologist in the manner of Bely in his great novel *Petersburg*, which uses this cortical folding in order to convert outside and inside: in a second space the industry of the town and of the brain are merely the obverse of one another. (119)

Therefore, the act of folding consists within the logic of turning inside (mind) out and outside (matter) in. For Deleuze, pertaining to this reverse determination, the limit of the inside (mind) and the outside (matter) plays a key role: “every inside-space is topologically in contact with the outside-space ... on the limits of a ‘living’” (118-119). This formulation suggests that the limit is the surface where the inside (mind) and the outside (matter) are co-present. This discussion teases my later handling of diagrams by architects and elaborations of these efforts by spatial theorists and philosophers. Such thinkers claim the spatio-temporal limits of structures are delineated by diagrams, tools at the beginning of the design process intended as translative objects that anticipate future performances within actualized buildings as well as performing in themselves as objects of creation. Diagrams thus enact—per-form—the theories of present limits I have just introduced.

If the limit is the co-present site of the inside and the outside, then it is bound to the manifold activity of time: “The inside condenses the past (a long period of time) in ways that are not at all continuous but instead confront it with a future that comes from outside ... To think means to be embedded in the present-time stratum that serves as a limit” (119). Now, the present-time formulation, the limit of the inside and outside spaces, brings us to the notion of auto-affection: “This auto-affection, this conversion of far and near, will assume more and more

importance by constructing an inside-space that will be completely co-present with the outside-space on the line of the fold" (118). The significance of linking the co-presence of the inside and outside spaces to auto-affection is twofold. First, this relationship designates the fold as a topological operator that has "a power to affect itself, an affect of self on self" (101). Second, by defining the fold's crease as the limit at which mind and matter are co-present, a co-present linkage proposes memory as the source of this auto-affection.

Deleuze (1992) grounds his conception of the limit in Henri Bergson's explication of memory as the "point of contact" between mind and matter, and in so doing, reassesses the interaction between mind and matter through the notion of the fold: "The infinite fold separates or moves between matter and soul, the façade and the closed room, the outside and the inside" (35). If memory is the "point of contact" between mind (inside) and matter (outside), then one might argue that memory operates through the act of folding. As Bergson (1912) writes in *Matter and Memory*: "The moment has come to reinstate memory ... and so to determine with more precision the point of contact between consciousness and things, between the body and the spirit" (70). It is in the framework established here that the present (the co-presence of mind and matter) functions as the limit between the inside and the outside. These Bergsonian meditations imply that memory operates by folding the future into the past. What is principally at stake here is the folding of the outside (matter) into the inside (mind) by folding the future into the past. However, what does this formulation entail? How can memory be proposed as an auto-affective operator in relation to this temporal logic? We need to further elaborate on the temporal paradox immanent to the operational logic of memory in order to grasp what the folding of the future into the past means.

"If *Matter and Memory* is a great book", Deleuze (1995) notes, "it is perhaps because Bergson profoundly explored the domain of this transcendental synthesis of a pure past and discovered all its constitutive paradoxes" (81). The first temporal paradox mentioned here is the simultaneity of past and present. In *Matter and Memory*, Bergson expresses this paradox in the following terms: "The essence of time is that it goes by; time already gone by is the past, and we call the present the instant in which it goes by" (176). If the past "goes by" in the present instant, the past moves the present back in time when it is recalled by the present. The past inhabits the present in the same moment that the present inhabits the past; hence, the present becomes the past by passing into the next instant. If the present is constituted as that which will have become the past in the new present, then the present is recalled as the future in the present, which has already passed.

Herein lies the second paradox. If, as the first paradox reveals, the present and past are contemporaneous, the present moving from one moment into the next and hence becoming past, then it is the same instant that becomes the past by gnawing into the new present (the future) that in the present has already passed. The second paradox thus finds its expression in the passage of all time.

According to Deleuze, central to the passage of all time (a simultaneous past, present, and future), is the notion of the *a priori* past: "The past ... is the in-itself of time as the final ground of the passage of time. In this sense it forms a pure, general, *a priori* element of all time" (82). This premise has two major consequences. First, the fact that the past exists as the past only in the present, which will become the past in the future, suggests that the past never exists as the past it was: "In effect, when we say that [the past] is contemporaneous with the present it was, we necessarily speak of a past which never was present" (82). Second, the *never-present* past is necessarily an *ever-present* past, because "the past which *never was present*" is the past, which *is always present*. These two theses converge on the idea that the past is infinitely present precisely because it does not exist as the past it was. More precisely, the past exists as the past only in the future. Thus, memory constitutes the present as the passing future. All of this movement constitutes a performance because space and time interact in a way that creates new assemblages of temporal coordinates every moment a new past, present, and/or future emerge.

This temporal understanding explains why the present opens itself up from the future toward the past. The present's backward movement is required for the appearance of the new present. Hence, memory operates by moving time back towards the future, which will become the past when it is present. The passage of time is therefore bound to the infinite regress of time. Time passes by sliding back into the future. This backward movement, which moves forward by infinitely turning back on itself, is the essential mechanism by which memory operates. However, each time it turns back on itself, it turns away from itself by passing into a new present. Consider, for example, the repeated scene of a woman with a shoulder bag climbing the stairs in Fernand Léger's *Ballet Mécanique* (1924). In Léger's experimental film, this scene, in which the woman climbs two stairs, is successively repeated. It takes one and a half seconds for the woman to climb two stairs, and this short clip is repeated seven times. The passage between the scenes is empty, insofar as each scene opens itself up to the next scene by turning back on itself. As delineated by Deleuze in his two books on cinema, montage functions as an inherently spatio-temporal medium that actualizes the passage of time through tracing the movement of bodies as and through space. This process

creates temporal memories that recombine at the same time as they recollect prior temporal moments in a film, moments that reference both diegetic and non-diegetic pasts, presents, and futures. Montage thus performs time using space to create a medium primarily constituted through the creative collaging of memories. In the chosen example, the repetition of a singular, recurring movement through the same space forms a feedback loop with each successive articulation of sameness revealing a performance of differentiation through temporal accretion.

Because of this asymmetrical relationship that memory has with itself, the present represents the former present as that which has already passed: “The present and the former present are not, therefore, like two successive instants on the line of time; rather, the present one necessarily contains an extra dimension in which it represents the former and also represents itself” (80). Conceived to represent the past (former present) in the present, the present must represent itself as a representing time: “Now the former present cannot be represented in the present one without the present one itself being represented in that representation. It is of the essence of representation not only to represent something but to represent its own representativity” (80). Therefore, the present must situate the former present (the past) in the present as a present that has already passed, and, moreover, this present must represent its representativity to constitute itself as the new present in relation to the former present it represents. In this way, we move the present back toward the new present.

The passage of time is thus regulated by an a priori past, which consists within the logic of the pure representativity of time. According to this logic, the a priori past constitutes the essential foundation of memory precisely because it is a pure representation. If, as Deleuze notes, the a priori past does not exist, and yet it *is*, then the *being* of time denotes the pure representativity of time, and is thus empty. Returning to our discussion of *Ballet Mécanique*, we can clearly see that the empty modulation of time depends on the stair scene’s pure representativity. From one scene to the next nothing happens; it is a pure representation or a pure recurring presentation. It is precisely in this empty state that time unfolds itself as a pure force that affects itself, via itself. Concerning this temporal emptiness, Deleuze notes:

What does this mean: the empty form of time or third synthesis? The Northern Prince says ‘time is out of joint’ ... time out of joint means demented time or time outside the curve ... freed from the events which made up its content ... in short, time presenting itself as an empty and

pure form. Time itself unfolds (that is apparently ceases to be a circle) instead of things unfolding within it ... It ceases to be cardinal and becomes ordinal, a pure order of time. (88)

This pure temporal unfolding brings us to the central concern of this article. If, as Bergson notes, memory inhabits the interval between mind and matter, then the interaction between mind and matter is key to understanding the act of folding as it relates to performativity. As this paper will make clear, the temporal auto-affectation becomes entangled here with the affective dimension of space. Memory's elucidation of the relation between mind and matter is performative inasmuch as it creates a dynamic between two spatially and temporally distinct concepts with material articulations and, in doing so, forges a moving connection that elicits new combinations, inculcating a process of creation rather than merely a philosophical duality or material actualization.

According to Bergson, the central problem in addressing the mind- matter interaction is the misconception that the mind stores the information it has retained from matter in the form of knowledge: "to perceive means above all to know. Now it is just this postulate that we dispute" (17). This misconception stems from attributing knowledge production to the brain, as though the brain's functional concern is to generate knowledge. Not only does this conception fail to understand how the mind works, but it also posits knowledge as the constitutive element of action. However, there is no evidence that the programmatic specificity of the brain is based on knowledge. This fact is suggested by the simple, literal image of the brain as a set of complex, interlocking folds performing a wide variety of meanings and duties rather than a static conceptual and material object easy to process theoretically but impossible in the assignation of moving dynamics beyond philosophical knowledge : "And no more in the higher centres of the cortex than in the spinal cord do the nervous elements work with a view to knowledge" (20). To understand the nature of the brain, one must consider its activity as its essential constituent. Basically, any question about the mind should consider the brain's operational schema. In this sense, Bergson describes brain function as follows: "Its function is to receive stimulation, to provide motor apparatus, and to present the largest possible number of these apparatuses to a given stimulus" (20-21). Clearly, the brain's role is to act on and react to matter by receiving and transmitting stimuli, a performative rather than conceptual or material feat given the fact that performativity involves enaction whereas conceptual and material presences are usually articulated as static or inactive. Therefore, the difference between the brain and spinal cord implies a

difference in the degree of complication rather than a difference in kind: “there is merely a difference in complication, and not a difference in kind, between the functions of the brain and the reflex activity of the medullary system” (18).

The way in which this approach links the notion of complication to the reception and transmission of stimuli is significant in at least two ways. First, the interval between the stimuli’s reception and transmission determines the level of complication. When there is no gap between action and reaction, the degree of complication is zero, because there is no difference between the organism and its environment. Before launching into an analysis of this thesis, one must simply note that the relation between organism and environment creates a spatio-temporal performance in each instant the two entities interact; organism and environment are not concepts or materials but rather performing objects who make meaning through ever changing, mutual engagements of one another. In other words, because the organism immediately transmits all that it receives, everything passes through it without conscious perception: “Indifferent to each other because of the radical mechanism which binds them together, they present each to the others all their sides at once: which means that they act and react mutually by all their elements, and that none of them perceives or is perceived consciously” (29). Returning to the second significant aspect of this approach, we find that it addresses the notion of memory. When an organism does not immediately react to stimuli, a gap appears between the mind and matter. Memory resides at this disjunction between mind and matter. This disjunctive relation between the mind and matter must be understood as a suspension of movement, which is, in turn, the condition for the appearance of an image. The suspended movement awaits its occasion to be executed. Images are found precisely in this interruption of flow. However, the absolute indifference to the information received allows the informational flow to continue without interruption. It is thus possible to argue that memory inhabits the differential interval generated by mind-matter interaction. By deferring its reaction to received stimuli, memory arrests and immobilizes movement in the form of an image. This notion of image thereby refers to sketches of potential movements that are stored to be executed in the future. These potential reactions are stored as memory-images. It is worth mentioning once more that all of this temporal language evokes spatial movements and coordinates; the temporal, structural relationships delineated in these theories create spatial dynamics and locations in order to create a comprehension of their interrelation.

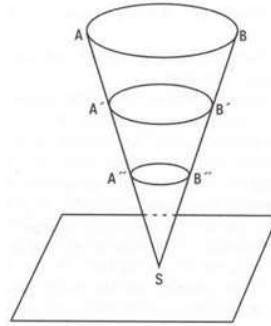
Bergson’s conception of memory allows a different account of the image to emerge, suggesting that the differences between inextension and extensity, as

well as quality and quantity, function merely matters of the degree and level of the contraction and extension of memory. In other words, the degree and level of memory contraction and extension determine the spatial variability and spatial motion of images, evoking the prior discussion of imagistic filmic montage. This contraction and extension proposes a reconciliation between both inextension/extensity, and quality/quantity by abandoning the dualistic approach to the mind-matter problem: "There would thus be inextension and quality on the one hand, extensity and quantity on the other. We have repudiated materialism, which derives the first term from the second; but neither do we accept idealism, which holds that the second is constructed by the first" (235-236). The mind is thus no more identified with inextension and quality than the body is identified with extensity and quantity: "And might not the interval between quantity and quality be lessened by considerations of tension, as the distance between the extended and the unextended is lessened by considerations of extension?" (238). The degree and level of contraction mutates between minimal and maximal contraction, and the degree and level of extension mutates between poles of minimal and maximal extension. This is how memory "prepare[s] the way for a reconciliation between the unextended and the extended, between quality and quantity" (236 -237). Such motion may appear conceptual upon first consideration but is, in fact, performative because movement involves the act of rearranging rather than simply the thinking through of knowledge.

Consequently, memory regulates the passage of all time by contracting and extending to varying degrees and levels. As I have already noted, if the same instant becomes the past by opening itself up to the future at the moment it is present, then the past constantly inhabits the present by sliding the present backward into the future. This immanent temporal transfiguration registers objectively in the spatial variation of image, which is determined by the contracting and extending memory. The language of motion evokes different means of performatively traversing space as moments of connection between rather than static conceptual of material relationships between temporal instants. By contracting and extending to different levels and degrees, memory constantly restructures itself, positing varying and varied spatial configurations based upon the logic that space is more purely a structural assemblage, in need of motion to be articulated and under constant construction as occupied by smaller bodily spaces and ever changing pasts, presents, and futures. Because every unique constellation is a new distribution, each time memory contracts and extends, it transforms itself into a new moment by redistributing the spatio-temporal configuration of material world. The differential intensity between mind and

matter thus expresses itself in spatial and temporal terms, a variability that is integral to memory.

The way in which memory operates is performative precisely because memory envelops the differential field that the disjunction between mind and matter generates. This differential field is why Bergson's approach to memory is guided by his use of diagrams. By incorporating perform a methodological exposition of his theory of memory. Thus, Bergson uses the cone, which stands here as a model for understanding the way in which memory functions, as a *performing object* because the cone, in Bergson's description, rejects a purely conceptual and/or material definition through being an inherently dynamic, performatively moving object, or diagram. Bergson demonstrates his theory of memory with an inverted cone consisting of three points, SAB. Its summit S touches the plane P on the ground, and the base AB is turned upside down.



The cone works simultaneously on two registers: the plane of action and the plane of pure memory. He describes the mechanism by which the cone operates as follows:

Let us refer once more to the diagram we traced above. At S is the present perception which I have of my body, that is to say, of a certain sensori-motor equilibrium. Over the surface of the base AB are spread, we may say, my recollections in their totality ... between the sensori-motor mechanisms figured by the point S and the totality of the memories disposed in AB there is room ... for a thousand repetitions of our psychical life. (211)

The point at which S touches the plane P refers to pure action, and the base AB refers to pure memory. The notion of pure action implies memory's complete absence from the present perception because there is no gap between mind and

matter. On the one hand, an organism immediately reacts to everything it receives, and, hence, transmits all that it receives without suspending any movement. The indifference to the information received renders the organism and its environment to be one and the same. On the other hand, the notion of pure memory articulates the absence of action, in that the organism suspends all movement without reacting to its environment. This complete environmental withdrawal transports the organism toward a dream state, where the difference between the organism and its environment is maximal. The notions of pure action and pure memory specify the maximum and minimum levels and degrees of memory contraction and extension. Bergson's cone thus exhibits this memory contraction and extension as both a spatial and temporal diagram. Such language performs explicitly spatial movements through moments of time and suggests only through spatial diagrams may the temporality of memory reveal its full functional logics.

Memory inhabits this spatio-temporal difference between mind and matter. Memory, which resides at the diagrammatic site between mind and matter, implies here the limit of conceptual and material determinations of thought. This approach maintains the conceptual and material determination of thought, but it formulates the limit as the site where conceptual and material determinations become immanently transcended. Here, thought becomes posited as a purely mediated spatio-temporal performance. Bergson's diagrammatic cone maps memory's spatio-temporal performance through an act of thinking set free from its conceptual and material limits and thus becomes a pure performance of space and time.

In *Diagram Diaries*, the deconstructionist architect and spatial theorist Peter Eisenman (1999) articulates the operational logic of diagrams as follows: "Diagrams, then, form visible matter and formalize articulable functions" (30). If conceptual relations formalize material relations (the process of *formation*), and material relations in-formalize conceptual relations (the process of *in-formation*), then the field generated by the disjunction between the conceptual and material relations is performative (the process of *per-formation*) in and of itself. It is this infinite per-formation of space and time that holds things together in space and time. This formulation links the theory of diagram to the notion of performativity via the interaction between mind and matter. Considering the notion of performativity from the diagrammatic perspective thus necessitates identifying Eisenman's relationship between (articulable) concepts and (visible) matter. At the core of the architect's thinking rests the idea of a performativity rooted in the originary act of design, which transforms and enables the

transcendence of concepts into suggestions and articulations of phenomenological movement. Eisenman aims for his diagrams to articulate the many, open ended ways one can perform the experience of spatial meaning's generation through time.

In *Foucault*, Deleuze (2009) identifies this relationship as follows:

As long as we stick to things and words we can believe that we are speaking of what we see, that we see what we are speaking of, and that the two are linked: in this way we remain on the level of an empirical exercise. But as soon as we open up words and things, as soon as we discover statements and visibilities, words and sight are raised to a higher exercise that is a priori, so that each reaches its own unique limit ... And yet the unique limit that separates each one is also the common limit. (65)

In accordance with this, Deleuze suggests that "there is a difference in nature between the form of content and the form of expression" (61). Two major consequences follow from Deleuze's premise. First, central to the disjunction between the matter and the concept is the notion of the diagram. While commenting on Deleuze's conception of the diagram, Eisenman further explores this disjunctive relation between matter and concept as follows: "Diagrams for Deleuze do not attempt to bridge the gap between these pairs, but rather attempt to widen it, to open the gap to other unformed matters and functions which will become formed" (30). Second, formulated as the disjunctive field between the matter and concept, the diagram, for Deleuze, is a spatio-temporal device: "every diagram is a spatio-temporal multiplicity" (34). These two theses converge on the idea that the disjunctive relation between the matter and concept is essentially spatio-temporal. In this gap performance emerges. Therefore, the "opening up" of the relationship between conceptual relations and material relations poses fundamental questions about the role of performativity in thought formation, particularly in relation to space and time. This relationship has several implications. First, at the common limit of the concept and matter, the relationship between the two expresses itself in terms of space and time. Diagrams, then, consist of the dynamic and active networks of the spatio-temporal relationships between the conceptual and material relations. Their diagrammatic function begins to explain why the cone as a diagram exhibits the nature of memory with regard to the performativity of space-time. However, to analyze the manner in which diagrams are performative devices, it is crucial to linguistically situate the notion of diagram.

In an interview entitled “What is a Diagram Anyway?”, architectural historian and theorist Anthony Vidler (2006) traces the etymological roots of diagram as follows:

The Oxford English Dictionary traces the word from the Old French, “diagramme”, out of the Greek “diagramma”, from “dia”, (“through”, “across”), or and “graphein”, something written, like a letter of the alphabet. Which takes diagram from simply something “marked out by lines”, all the way through a geometrical figure, to a written list, a register, a gamut or scale in music... it [the diagram] represents the course or results of any action or process. (19)

Similarly, in “Diagrams as Piloting Devices in the Philosophy of Gilles Deleuze”, philosophical thinker Kenneth J. Knoespel (2001) notes that the notion of the diagram is predicated on prepositions such as “through,” “out,” “over,” and “across”:

Diagrams are simple drawings or figures that we think with or think through ... The root verb of diagramma [Greek] does not simply mean something which is marked out by lines, a figure, form, or plan, but also carries a secondary connotation of marking or crossing out ... The connection between making figures and making them disappear is more than a philological curiosity because it suggests writing on a wax tablet where writing with a stylus would involve crossing over the marks that had been drawn previously. In this sense, diagramma embodies a practice of figuring, defiguring, refiguring, and prefiguring. (147)

To further develop the diagram’s relationship to its appearance (marking out) and disappearance (crossing out), one must consider the notion of the limit. Given marking out also means crossing out, marking out simultaneously determines where something begins and ends. It is only at its limits that one simultaneously *is* and *is not*. To put this another way, the inside space is *co-present* with the outside space only at the limit. We can thus argue that the limit is the excluded middle, the mid-place between the inside and outside. Like the language of Bergsonian memory, these denotations of diagrams suggest all spatio-temporal relations are forever under construction, surpassing conceptual and material meanings to articulate moving, performative relations. To deconstruct the diagrammatic language of architecture and philosophy in a way similar to memory—to create clear, ever changing relationships between space and time

performing constantly new functions and meanings—suggests that the space emphasized by Vidler may be accounted for in the same ways as the time expressed by Knoespel. Moreover, this language insists that through the idea of a diagram its conceptual and material elements may be superseded by their performative elements by examining linguistic and spatio-temporal movement through them more than the nature of them.

Commenting on the Deleuzian fold, philosopher John Rajchman (2004) describes the middle as the place where folding occurs:

For Deleuze, this ‘mid-place’, this ‘mi-lieu’ is precisely where folding occurs: ‘Things and thought grow or grow up through the midst (milieu), and it is there that one has to be, it is always there that things are folded (que ca se plié). Through his notion of the milieu, Deleuze would deliver us from a ‘linear’ picture of time ... The midst is rather where beginnings are recast and new endings opened up in our stories; a milieu always ... expose[s] a prior complexity, and complication in them. And conversely, in the intervals in the midst of things there always subsists the chance for the sort of free self-complication of a space that instigates without prefiguring. For Deleuze, events ... come out of complications, out of the fold. (78)

If, as Rajchman proposes, the mid-place is the medium where new beginnings and endings are recast, then new stories within stories open up by and through the middle. Therefore, things begin and end in the middle. This description of the Deleuzian fold is remarkable on at least two counts. First, it retains the act of folding as the essential foundation of becoming present. Second, the complication of space occurs neither in the beginning (past) nor in the end (future), but in the middle (present), inducing a diagrammatic way of thinking through memory.

Now, returning to diagrams, it is thus possible to argue that diagrams are intermediary devices that demarcate sets of contact points between the past/inside/concept and the future/outside/matter at the limit/mid-place/milieu of the present. Therefore, by linking the concept and matter at the limit of both, memory inhabits the diagrammatic site between concept and matter. It is precisely from this perspective that Eisenman defines diagrams: “Thus, the diagram is an intermediate or interstitial condition which lies between in space and time” (34). Therefore, the notion of the diagram is critical to the discussion of memory, and it is not a coincidence that Bergson proposes the cone as a diagram to demonstrate how memory performs.

Establishing the logic of the performativity of memory requires a radical and profound consideration of the notion of the differential because, as Deleuze (1995) notes, the manner in which this play with/in space and time occurs is predicated on the difference between different degrees and levels of memory's spatialization of the temporal dynamics of extension and contraction:

We say of successive presents which express a destiny that they always play out the same thing, the same story, but at different levels: here more or less relaxed, there more or less contracted ... The succession of present presents is only the manifestation of something more profound – namely, the manner in which each continues the whole life, but at a different level or degree to the preceding. (83)

If the whole is always already contracted or relaxed, then the present marks out its presence by crossing itself out, or crossing over its limits at the moment it is present. As we have previously established, the present is contemporaneous with the past, precisely in the way that it passes into the next instant, by passing itself in the process. However, because something is not itself outside itself, it turns back on itself at the moment it crosses over its limit. It is through this infinite turning back on itself that it affects itself, by means of itself. Therefore, it becomes auto-affective.

Because, as we have made clear, the past constantly inhabits the present by moving the present backwards into the future, every present perception is already a memory of the future. One might therefore add to Bergson's remark, "the photograph ... is already taken, already developed in the very heart of things and at all points of space" (31), that the photograph is already taken because it will have to be taken infinitely more times. To say that every image is an already taken photograph is to highlight the fact that every image is a derivative of previous images. If memory takes photographs by extending and contracting the whole to different degrees and levels, then each contraction and extension is the contraction and extension of an already contracted and extended whole. Given that each distribution contracts and extends the whole to a different degree and level, the difference between these degrees and levels implies the differential functioning of memory.

"Each present contracts a level of the whole," Deleuze reminds us, "but this level is already one of relaxation or contraction" (83). Now, it is crucial to note that the whole implies a presupposition. To say that memory infinitely redistributes itself, positing each distribution of the whole differently, does not

attribute to the whole a transcendental dimension. On the contrary, temporal variation exists immanent in the empirical act of distribution. The difference between the varying degrees and levels of the extension and contraction of the whole establishes itself empirically. However, the differentials of this movement become generated empirically only insofar as the difference from one moment to the next grasps itself as a transcendental transformation.

On the one hand, if every moment is essentially a redistribution of the whole, then every moment is a part of the whole. On the other hand, because each moment redistributes the whole itself, each moment encompasses the whole as a whole. Distribution is an inherently performative concept because, after all, it refers to the spatial allocation of temporal spaces that play out in different, interrelated instants. However, here a question arises: how can a term simultaneously be a part of the whole and the whole itself?

Memory bears a twofold relationship to the part-whole dynamic and creates, through the motion implied by their diagrammatic nature, performative rather than conceptual or material meanings. Each distribution is a part of the whole only if the whole is a part of the distribution itself. Basically, each moment begets itself by transforming the whole from within, moving upon itself to spatially trace temporal changes. Each distribution is determined as part of the relational whole at the same time the whole is determined as part of each distribution. With each moment, the whole series redistributes itself. If every moment is essentially the redistribution of the whole by way of memory extension and contraction, then each moment encompasses the whole as a whole and reinscribes and re-envisions itself as a diagram each time. However, since it is the same whole that is contracted and extended, the whole past repeats itself with each moment to a different degree and level. Deleuze comments on this framework as follows: “Moreover, what we say of a life may be said of several lives. Since each is a passing present, one life may replay another at a different level, as if the philosopher and the pig, the criminal and the saint, played out the same past at different levels of a gigantic *cone*” (83, emphasis mine).

As a part of the whole, each singular distribution differentiates itself from the whole by encompassing the whole and immanently transcending it by differentiating itself from the whole it has encompassed. The fact that the whole is infinitely differentiated in itself indicates division, and hence, multiplication of the whole. Therefore, there is not one whole, but rather multiple wholes interlocked within each other and is rendered visible through the moving, performative diagram of memory. In turn, each singular distribution differentiates multiple wholes from multiple wholes, or rather, multiplicities from

multiplicities. This is precisely what Deleuze (1992) means by the act of folding: “The multiple is not only what has many parts, but what is folded in many ways” (3).

Consider, for example, a universe with 3 beings, whose Ideas become posited as A, B, and C. Why is it exactly that each is posited distinctly as A, B, and C? Why is the manner in which each deploys itself unique? Why do they have distinct orientations and dispositions? These questions about difference relate the emergence of A, B, and C to the notion of the limit. Therefore, the primary question that needs to be addressed is the following: why are A, B, and C different from each other? They are different, because they are limited. The limit is the condition of difference because it preserves the identity of difference with difference. Therefore, this universe, which is composed of A, B, and C, functions as follows: A distinguishes itself from B and C, B from A and C, and C from A and B. Thus, A determines itself by separating itself (interiority) from its outside which is composed of B and C; B determines itself by separating itself from its outside which is composed of A and C; C determines itself by separating itself from its outside which is composed of A and B. These diagrammatic points are, of course, spatio-temporal coordinates that join together in endless ways to perform ever new foldings.

By relating the notion of the limit to the folding of the inside out and outside in, one can conclude that A distinguishes itself from B and C by turning the inside out, and because its outside space consists of B and C, A turns B and C inside out. Put differently, A is the reverse side of B and C. At the same time, B distinguishes itself from A and C by turning the inside out, and because its outside space consists of A and C, B turns A and C inside out. B is thus the reverse side of A and C. Finally, C distinguishes itself from A and B by turning the inside out, and because its outside space consists of A and B, C turns A and B inside out. C is then the reverse side of A and B.

In *The Science of Logic*, Wilhelm Friedrich Hegel (1831/2010) demonstrates this spatial reversibility with an example, which, by mapping the material topography of the inside-outside relation, gives a precise account of how this spatial reversal functions. Yet that the reversal mentioned by Hegel implies negation while the reversal mentioned by Deleuze by no means implies negation. Rather, one might argue that Deleuze’s dialectics are differential. Whereas Hegel designates spatial reversal as negation, Deleuze carefully considers the degrees of this spatial reversal, which he delineates in conjunction with the notion of the differential. What essentially distinguishes Deleuze from Hegel is his emphasis on the degrees of this spatial reversibility, and such reversibility defines the

performativity of the Deleuzian fold. Nonetheless, Hegel's example will clearly reveal how Deleuze conceives of the notions of interiority and exteriority. The basic reason for this is that for both Hegel and Deleuze, the concept that is central to the reciprocal determination of the inside and outside spaces is the limit. More precisely, it is only on the basis of the limit that the Idea of A is equal to A, the Idea of B is equal to B, and the Idea of C is equal to C.

Hegel presents the relation between the point and the line as an example to demonstrate how the limit operates topologically: "Therefore, the point is the limit of line, not because the latter just ceases at the point and has existence outside it...Rather, at the point the line also begins" (46). What does this exactly mean? Now, the two end points of a line determine the limits of the line by marking where the line segment ends. Thus, outside the two end points, the line does not exist. However, along with the line ceasing to be at its end points, it also begins because, as Hegel indicates, the line "has existence outside" the end points. At first glance, the fact that the line has an existence outside its end points appears counterintuitive because, in addition to having existence outside its end points, the line also does not have existence outside the end-points. The reason both propositions are true is the perspective shift that Hegel employs from the line to the point, and from the point to the line. From the perspective of the point, the line is its outside. Hence, the line is outside the point, or outside the point is the line. The outside of the point is the line, because the line "has existence outside" the point. Therefore, the line is outside the point, which is its outside. That is, the line is the outside of the outside. Topology, the science of folding, is above all the creation of performative diagrams that move rather than sit as idle concepts or materials.

The determinations of the interiority and exteriority of the line and the point thus "fall outside each other" (47). Yet, because both the line and the point are determined from outside, the outside from which each is determined determines itself as the inside. Therefore, each turns back on itself by "coming-out-of-itself" (48). Each comes "out-of-itself" to be "coming-together-with-oneself" (49). Because the line is the outside of the point, the point is the outside of the line, which is, in turn, its outside. Consequently, the point, as in the case of the line, is also determined as the outside of the outside. This language is spatial and temporal, yes, but more than anything else it suggests the performative movement of shuttling to and from, between, spaces and times rather than simply existing as concepts or materials.

We can now clearly see that in the cases of both the line and the point, the interior space is constituted as the outside of the outside. However, this

observation, at the same time, reveals that the exterior space is also constituted as the inside of the inside. The reason why this is the case is precisely because the inside and the outside of both the line and the point are relatively and reciprocally determined. In brief, the interior space is denoted by the outside of the outside and so forth, to infinity, whereas the exterior space is denoted by the inside of the inside and so forth, to infinity. However, if the outside of the outside is nothing but the inside, then the inside, which is denoted by the outside of the outside, might also be denoted by the inside of the inside. When each outside of the outside in this equation is replaced with the inside, the inside space becomes the inside of the inside of the inside to infinity. Therefore, the inside is either the outside of the outside of the outside to infinity or the inside of the inside of the inside to infinity. It is therefore possible to conclude that the infinite repetition of the inside is the same as the infinite repetition of the outside. There is thus only one movement, whose formulation can be denoted either by the infinite repetition of the inside out, or by the infinite repetition of the outside in. This singular movement constitutes the diagrammatic performance of auto-affection.

Deleuze (1995) describes this repetition with regard to space and time as follows:

Space and time are themselves repetitive milieu; and real opposition is not a maximum of difference but a minimum of repetition – a repetition reduced to two, echoing and returning on itself; a repetition which has found the means to define itself. Repetition thus appears as difference without a concept, a repetition which escapes infinitely continued conceptual difference. (13)

As I have argued in this paper, what is at stake in the folding of the inside out or of the outside in is not the conceptual (*formative*) or material (*in-formative*) difference, but rather the performative (*per-formative*) difference.

Therefore, the auto-affection inherent to the pure folding of space and time can only be understood within the register of formation, in-formation, and per-formation, because, as I have made clear, the relation between concept and matter must express itself spatio-temporally. This is why, by abandoning the established definitions of performativity, and instead theorizing performativity through the necessary triad of formation, in-formation, and per-formation, I have argued here that the notion of performativity maintains a critical place in relating auto-affection to the folding of space-time.

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Chapter 24

Examination of Facility Location Suitability in Horse Facilities

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1. INTRODUCTION

Horse has an important place in our culture. This importance increases even more as the Turks are the first nation to domesticate the horse.

Mankind, who discovered the possibilities and abilities of the horse in turn, has always used it as the fastest means of transportation for centuries; in the following periods, it benefited from its power and speed in agriculture, postal services and transportation (Unver, 2006).

Today, horses are generally used in fields such as sports, hobby and health. As in every business, equestrian businesses have some unique features and points that need to be carefully considered. One of them is the choice of establishment location. The success and future of the equestrian business directly affects the choice of the facility location of this business.

The facility location generally refers to a certain piece of land on which the enterprise is located (Kurtoglu and Tanritanir, 1995).

Although there are many studies on the selection of the facility location in the literature, no study has been found on the selection and suitability of the facility site in the equestrian businesses that this study deals with. This is important in that our study will be a source for future studies. Nevertheless, a brief summary of some of the studies on the selection of facility location in the literature is presented in Table 1 below.

Table 1. A Brief Summary of Facility Location Selection Studies

Author(s)	Year	Addressed Topic	Utilized Method
Majid et al.	2006	The plywood and veneer industry location selection in Iran	AHP, TOPSIS
Ozmen	2007	Location selection of nuclear power plants planned to be established in Turkey	Entropy, TOPSIS
According to Vahidnia et al.	2009	Hospital site location selection	Fuzzy AHP and its derivatives
Athawale and Chakraborty	2010	Real time facility location selection	PROMETHEE II
Turskis and Zavadskas	2010	Logistic centers location selection	Fuzzy ARAS
Comber et al.	2011	Determining ambulance locations	Modified Group Genetic Algorithm (GGA)
Choudhary and Shankar	2012	Thermal power plant location selection	Fuzzy AHP, TOPSIS
Zandi and Roghanian	2013	Hypothetical company location selection	Fuzzy ELECTRE based on VIKOR

On the other hand, Omurbek et al.	2013	Determining the areas where animal husband can executed in Isparta, Turkey	AHP
Akyuz and Stove	2013	Location selection in textile industry	ELECTRE
Chakraborty et al.	2013	Distribution center location selection	GRA, MOORA, ELECTRE, OCRA
Zhen et al.	2014	Ambulance deployment and relocation	Simulation optimization method
Behestifar and Alimoahmadi	2015	Location-allocation of health clinics	A multiobjective optimization approach with Geographic Information Systems (GIS)
Nickel et al.	2016	Ambulance location selection	Mathematical programming model and a sampling approach
According to Memari et al.	2018	Determining temporary multi-medical centers's location	Novel fuzzy dynamic bi-objective location model
Wang et al.	2018	Solar power plant location selection	AHP, TOPSIS, DEA
Kircalli	2019	CBS based solar farm location selection	AHP
Aydemir-Montenegro	2019	Solid waste landfill site location selection	Combined goal programming and AHP
Ortega et al.	2020	Park and rice facility location selection	AHP
According to Karasan et al.	2020	Electric vehicles charging stations location selection	DEMATEL, AHP, TOPSIS
According to Asra et al.	2022	Frozen tuna indstry location selection	AHP
Torkayesh and Simic	2022	Sustainable recycling location selection for healthcare plastics	H-SBWM, C-CoCoSo, C-WASPAS, BORDA
Intellectual	2022	Determining the optimum number and locations of public parking lots	Multiobjective, multiperiod, decision-dependent, two-stage, stochastic mathematical model
Yanik and Husband	2022	Specifying effective factors on port facility location selection	AHP

Together with these; in equestrian businesses, as in other businesses; accessibility, storage, supply, costs, etc. items are important. However, there are

a few more criteria that should be considered carefully when determining the facility locations of these enterprises. Among them; topics include climate, terrain, availability of infrastructure for horses, accessibility, and recycling of waste.

As in the rest of the world, the main problems related to equine enterprises in our country are instability in the selection of facility location, facility design and high costs. Considering that such facilities can only be established in rural areas due to various reasons (sound, land, natural life, smell, etc.) and the costs (horse, training areas, paddock, etc.) will be very high; entrepreneurs both prefer regions far from settlements and also they make losses by establishing small and dysfunctional facilities than they planned. In this context, investors who want to establish an equine business will be able to find answers to the following questions with our study:

- What are equine businesses?
- How are the establishment sites of equestrian facilities determined according to the field of activity?
- How to set up a functional equine facility at low costs?
- How are equestrian facilities located in the city centres?
- How to build a facility that can pay for itself in a short time?
- What are the qualifications to be sought in the personnel to be employed at the facility?
- What are the focal points of equine businesses?
- How to make more than one branch with a single facility?

In line with this information, in this study, it is aimed to help the investors and entrepreneurs who plan to establish an equine business to determine the points to be considered in the selection of the facility location. In addition, it is among the aims of the study to provide a better understanding of the social and economic aspects of equestrian businesses in the world and to explain the unknown or misunderstood aspects and the effects of equestrianism on health. In addition to these, since it is a subject that has not been studied before, it is expected to show its positive reflections in the literature in a short time.

2. HORSE BREEDING FACILITIES

In the past, countries have generally bred horses to be used in activities such as transportation, access, etc., especially cavalry units of their armies. The activities of motor vehicles today were done by horses at that time. However, nowadays, horses are mostly used in activities such as hobbies, sports, health and

cultural organizations as an entity between man and vehicle. In line with these usage areas, modern facilities that can provide services in accordance with the purpose are established (Unver, 2006).

There are many equestrian activities that can be done in equestrian facilities and in the training and working areas connected to these facilities. Examples of these activities are traditional equestrian games (javelin, equestrian archery, etc.), national and international equestrian sports (show jumping, equestrian endurance, dressage, etc.), horse therapy practices and equestrian public order training (Gulec, 2006).

An important feature that distinguishes equine businesses from other businesses is that they are being located in places suitable for the living conditions of horses, where their needs (open and clean air, land and climate conditions suitable for breed characteristics, large pastures, areas where they can feel themselves in their natural habitat) can be met. For this reason, if possible, entrepreneurs should consider the idea of finding a facility that has an established order, open to change and development, and carrying out their activities through that facility, without purchasing land (Koseman and Seker, 2016).

While choosing the place of location in terms of equine businesses, taking into consideration what and where to build; the climate, the objectives of the operation, the demographic structure, the money that can be spent, future growth plans, building regulations, zoning and landscaping regulations, title deed contracts have to be borne in mind. All these aspects are detailed below:

- Demographics should be at the top of the list, as the community your business will serve is considered an important factor to consider.
- The existence of similar facilities that can compete at the facility location will increase the interest in the region and attract more people than expected, as it is an indication that the region is suitable for the facility planned to be established.
- Equine facilities should be as close to the target audience as possible for the reasons such as reducing costs, shortening the time to reach the customer, etc.
- The need for intermediate staff in accordance with the objectives of the enterprise should be met from qualified, well-trained, experienced and competent personnel from the environment of the facility as much as possible.
- Moreover; preferring places where horses can meet their vital needs such as care, nutrition, health, etc. with less cost is another factor that should be evaluated.

- Assessing the natural usage areas and ground characteristics of the region in the best way will contribute to the design. Surface slope and soil type will affect the drainage to be made, the costs, the pasture quality and the ground available to the horses. On the one hand, trees in the field provide protection to the horses by blocking the sun, on the other hand, they can affect the wind pattern and air circulation.
- It should not be forgotten that puddles, ponds and streams in the natural environment may be a threat to horses by attracting pests such as insects and eptiles, may negatively affect drainage and may restrict the areas of use required for the plant.

3. FACILITY LOCATION SUITABILITY IN HORSE BREEDING FACILITIES

The horse industry is a huge and complex industry. It attracts customers by appealing to both entertainment and service sectors. It can benefit from all geographical areas and social environment. Whatever the name of the profit in the industry is basically the horse. As the demand for equestrian businesses increases, external influences become dominant and business owners are forced to make constant changes. What is important here is a stable management as well as being able to keep up with the change.

Equine businesses consist of a combination of many parts. At the center are the producers. This production is not only limited to horses, but covers the entire product range required for equine businesses. Afterwards; horse owners, riders, their affiliates, service providers (farmers, veterinarians, trainers, grooms, etc.) come respectively. The fact that the largest group among them is service providers does not change the fact that they have horses in common. It is a sector with a surprisingly complex structure and hierarchy that has developed around a single species (Hoffmann, 2019).

3.1. Design, Plan and Management of Facilities for Today's Needs

The success of people and organizations dealing with horses and equine breeding is possible with the establishment of the right facilities in accordance with the requirements of the age (Ozbek, 1996). Regular modernization of equine business facilities is inevitable due to customer requirements, animal welfare, technical progress and rising personnel costs. The operators of these facilities have to meet the demands of customers, which have increased significantly in recent years. Work processes should be checked regularly and necessary arrangements should be made to save time and manpower. This can have a lasting impact on the profitability of the business. Modernization needs to be handled in

a goal-oriented way, as the value of the business is preserved and the business can be made suitable for the future thanks to continuous modernization (Hoffmann, 2019).

3.1.1. Stables

Stables should be airy and spacious, designed for the mental and physical health of the horses. This is what horse owners and customers expect from a modern business. But it doesn't always have to be a new building. Existing barn systems (for dairy and fattening) can also be modernized as an equine business. During this transformation, issues such as facility location, zoning plans, permits, existing infrastructure, and the suitability and convertibility of the physical features of the facility for horses should be taken into consideration.

Space for horses to socialize, fresh air and light support their health. New designs and changes suitable for today's conditions generally simplify business processes, increase business profitability and value. An example of a modern barn is given in Figure 1.



Figure 1. Example of a Modern Barn

(<https://tr.pinterest.com/>)

Things to do for modern stables where horses can live in a healthy way are presented below:

- A healthy horse stable starts with proper drainage. It is very important to keep the water out. The foundation should be high enough to prevent rainwater from seeping in.
- The effect of wind and sun on the barn should be known. This has a significant impact on barn layout and design. The trajectory of the sun's rays is vital for natural lighting and warming.

- Establishing equestrian enterprises in areas where infrastructure (road, water, electricity, sewerage, internet, etc.) is completed is very important in terms of costs.
- Horse stables require constant maintenance. Because of the large amount of manure that horses produce, businesses struggle to find ways to dispose of waste efficiently. This point should not be overlooked in planning.
- Barn waste should be stored in places that are easily accessible but as far away from water sources and barn as possible, as they attract disease-causing pests. Businesses can use their wastes by making compost (solid waste disposal method) for gardens (Grunska, 2018).
- Required dimensions for horse stables, approximately 12 m² cell (boxing) area, minimum 2.50 m. (3.50 m. ideal) cell height, 2.50 m. – 3.00 m. service path width.
- The temperature of the barn should be constantly controlled, and precautions should be taken in extreme hot and cold situations.
- It should not be forgotten that very high and low humidity levels will increase the possibility of horses getting respiratory diseases, and humidity inside the barn should be kept under control.
- Necessary measures should be taken against harmful gases such as ammonia and hydrosulfur, which are formed in the barn due to manure, urine and nail rot.
- Horses like to stay outdoors in breezy places. There must be realistic air movement to remove bad air inside the barn. The purpose of ventilation is to remove the air loaded with water vapor and harmful gases from the barn and to ensure that fresh air enters its place.
- Horses need high levels of light. Scientists have proven the positive effect of light on animal welfare (such as increasing work determination, desire, productivity and performance, awakening metabolism, strengthening the immune system) (Burla et al., 2016). Known as steppe animals, horses have adapted to high light levels. The reasons that prevent light from entering the barn (buildings, trees, etc.) should be carefully evaluated, and it should not be forgotten that such problems can be overcome with specially designed large skylights with UV radiation permeability. Unlike artificial light, daylight is much healthier for horses as it is for all living things. In addition to all these, windows in the south and southwest directions should be supported with shades in order to prevent the increase in the temperature inside the barn during the summer months.
- When daylight is not available, LED lights should be preferred as they are more economical than traditional bulbs, do not heat up and attract less

insects. All lighting should be placed in horse-safe areas (<https://www.energy.gov/>).

- Good thermal insulation is very important for the health of the horses and the long-lasting use of the building (Ozbek, 1996).

3.1.2. Maneges (Open-Closed) and Poaching (Longe) Areas

Indoor and outdoor areas (fenced around) specially designed for horse riding, where horses and riders do their training, competition and show activities, are called maneges. Closed maneges, which have become an important requirement for equestrian facilities today, should look aesthetically pleasing, complement the integrity of the facility and conform to the natural structure (Figure 2). Horse and rider health should be kept in the forefront while preparing the manege plans, and the dimensions should be determined according to the size, purpose and number of horses of the facility, allowing more than one branch to be made.



Figure 2. Closed Manege (<https://www.houzz.ie>)

Çılbrı (Lonj) is the movement, training of a horse in a circle with a diameter of at least 12 meters with a 7-8 meter belt. It can be done in all kinds of open and closed areas where the ground is suitable for horse health. The round form is the most convenient in terms of functionality. Indoor poaching areas (12-16 meters in diameter) are more beneficial for the safety and training of young horses. If the area is to be used for equestrian gymnastics, this measure must be at least 18 meters. The fact that the poaching area is limited by a wall or fence at a height of 1.10-2.10 m. allows the horses to work more calmly and adapt to the circle bend more easily.

3.1.3. Paddock and Promenade

Paddocks are fenced areas that allow horses to feel in their natural habitat, large enough for them to move freely. They are often used to separate horses (such as mares and stallions), limit their movement or control their diet. Descriptions of the paddocks are as follows (<https://www.heritage-house.org/>):

- A good paddock is the key to having physically and mentally healthier (happy) horses.
- On high ground, it is important to choose well-drained soils away from wetlands (creeks, lakes, etc.) and surface water flows (such as a hill sloping towards you).
- When determining paddock areas, possible surface flows and risk of sediment (rock type), fertilizer or urine flowing into wetlands should be taken into consideration, if necessary, natural filtration (grass, pasture, etc.) should be done, and workload such as cleaning and feeding should be taken into account.
- Paddock floors should be suitable for equine health, manure should be taken easily and should not create much dust. The fact that the floor is harder than the boarding training areas makes maintenance and cleaning easier, and it also has a positive effect on nail development (Ozbek, 1996).
- The total amount of land of the facility, the number of horses, their age, temperament and the amount of regular exercise they receive should be considered when determining the size of the paddocks.
- Individual paddocks facilitates health checks, regulates feed and water intake, and helps prevent aggressive behavior of a dominant horse towards other horses.
- Paddocks with stables (with boxing connection) contribute to the natural environment relations by freeing the horses from the psychological pressure of the indoor area, helping them to exercise in the open air and enjoy the fresh air.
- A stimulating environment for horses to give up their bad habits contributes to their general health by encouraging their movement and provides easier grazing management. In addition, standing side by side in the paddock so that the horses can see each other reduces stress and strengthens social interaction.
- Keeping horses in a paddock at appropriate intervals gives the pastures time to rest and rejuvenate.
- Paddocks should be surrounded by high security fences suitable for climate and terrain conditions. Although wood is the most preferred, it has an attractive feature for chewing. Horses test and try to overcome all types of

fences, but they tend to respect electric fences. Ideal heights are in the range of 1.60 m. - 1.80 m.

- Paddocks should not contain anything harmful to horse health (scrap, garbage, etc.), and there should be good environmental lighting (Hoffmann, 2019).
- Manure should be collected regularly in terms of hygiene.
- Grazing should be done slowly and in a controlled manner, as the green and lush grasses in pastures can cause serious problems (pain, etc.) for horses, especially in spring.
- Fenced pastures should be preferred in terms of horse health, care, control, safety and workload.
- All of these means a pleasant, easy, fun and clean environment to maintain as well as healthy horses with less cost for equestrian businesses (Hoffmann, 2019).

3.1.4. Things to Do for Individuals with Special Needs

According to the data of November 2021 by the World Health Organization (WHO), it is estimated that more than 1 billion people (approximately 15% of the world population) are disabled (<https://www.un.org/>). In our country, according to the data of the Ministry of Family and Social Services for April 2021, the number of people with at least one disability is 4,876,000 (<https://www.aile.gov.tr/>).

Today, therapeutic services are increasingly provided for private individuals in equestrian facilities. Creating facilities and programs that will enable special individuals to have a good time with their families and friends and help them prove themselves by demonstrating their capabilities is one of our social responsibilities. Therefore, when designing equine business facilities, the services offered must be equally accessible to all guests. Walking paths, boarding, promenade and all social areas should be planned to meet the needs. Additional security measures should be taken for each section designed for private individuals, and there should be no physical barriers in the training areas. Specialized personnel (therapist, psychologist, therapy horse trainer, side walker, etc.) should be present to accompany the guests in all activities. Some features that the facility offers to individuals with special needs also provide great convenience for other guests (such as the elderly, small children and families with babies) who come to the facility (Steinfeld et al., 2021).

The facility should have a flat ground and secure fences, and private individuals should be able to reach every point of the facility easily. All kinds of

equipment (horse and riding equipment, embarkation and disembarkation ramps, etc.) should always be ready for use and meet the needs (<https://pathintl.org/>).

4. RESULTS AND RECOMMENDATIONS

In the study, the suitability of facility location selection in equine enterprises was examined. As a result of the findings obtained; the matters that are considered to be important for the operation, sustainability and future of the planned facilities are given below:

- It is important to analyze the land structure and size, climate, workforce, transportation, market, social, cultural, economic and public factors, which are considered to directly affect the choice of establishment location, together with experts in their field.
- Optimizing business processes in equine business facilities and using management software specially designed for the equine industry is important in terms of saving time and increasing profitability.
- It has been determined that the use of fence monitors (solar powered, mobile phone applied, etc.) for electric fences in places such as paddock, pasture, etc. facilitates control (voltage measurement, alarming in circuit interruptions).
- It is considered important and valuable in terms of customer satisfaction to create comfortable boarding areas and social facilities (cafe, etc.) where guests can have fun.
- Studies have shown that thanks to renewable energy systems (solar, wind, waste, etc.), businesses can provide the energy they need and amortize their system costs in a short time.
- The hot water need of the facility can be met by releasing the heat in the waste manure through the Compost Heat Exchangers (equipment that transfers the heat in the manure to different points).
- Services such as health, shelter and care are of vital importance. Access to clean and fresh food for horses should be continuous, all equipment should be used for a long time with regular maintenance, physical conditions within the facility should be perfect, and all these services should be well managed in terms of continuity and costs.
- Transportation, maintenance, nutrition, general expenses, etc. all activities should be planned in advance to minimize costs.
- Fixed (rent, maintenance, repair, etc.) and variable costs (such as feed, health, farrier services) should be recorded.
- Horses should be trained by considering their age, race, gender, etc. in order to get maximum efficiency.

- It is very important in terms of profitability, customer satisfaction and business prestige that hostel stud farms (horse hotels) offer services such as health and education as well as care and nutrition.
- No activities other than breeding should be carried out in the facilities where horse breeding will be carried out.
- While the attraction of facilities that provide services such as horse riding training decreases as they move away from the city centers (the most important factor is time), the establishment of facilities where activities such as equestrian tourism are carried out outside the city centers (natural life) increases.
- Equine facilities should focus on both horses and earnings. The horse's right (for vital activities such as care, feeding, etc.) must be given from the income obtained.

Finally, in order to encourage the spread of equestrian sport originating from our culture to the masses and to bring the people together with equestrian sport, it is necessary for the equestrian enterprises in our country to expand their fields of activity, to make domestic production, to increase the interest in the equestrian sector, and to train successful athletes for equestrian sport, which is the only sport in the world. It has been concluded that it is important for the continuity of these activities to cooperate with public institutions and organizations, and by getting support from sponsors and companies.

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Chapter 25

Categorization of Motifs Used in Traditional Turkish Handicrafts in Terms of Visual Communication Design

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1. Introduction

Traditional crafts are cultural treasures made with great labor. Societies have formed motives that have communication value by interpreting life and nature in conveying their traditions, customs and beliefs, personal feelings and messages. The Turks embellished the items they used, coming directly to them as they wanted. They adhered to tradition in their decorations, preserved their national arts and tastes, developed their creativity, reflected their spiritual lives of traditions, customs and family art cultures to their arts (Gönül, 1992: 32). The Ottoman Empire carried the cultural heritage it inherited from the Seljuk period further or to different dimensions. Handicrafts made in the Ottoman period were nourished and influenced by many different sources. Ottoman handicrafts have an important place in the world in terms of diversity. With the prohibition of painting and sculpture with Islam, Turkish craftsmen concentrated on ornamentation. The origin of the art of ornamentation in the Turks goes back to Central Asia. This national art culture, which started in Central Asia, has reached a distinguished level in Anatolia and Thrace, including the Near East, and its effects have survived to the present day. It peaked especially in the Ottoman classical period (Akar, Keskiner, 1978: 21).

Ornamentation in the Turks was influenced by four major elements:

I. Central Asian and Far Eastern influences (Uyghur Art, Hun and Chinese art)

II. Near East (Iranian Seljuks, Ilkhanians, Timurs, Akkoyunlu and Karakoyunlu Turkmens)

III. Ancient civilizations that continued their dominance in Near East and Anatolia (Art of Hellenistic Age, art of Sumerians, Art of Hittites, Art of Byzantium)

IV. Local Influences, Climates, Nature Covers (Arseven, 1970: 12-35).

With the development of technology, handicrafts made with great labor have lost their importance. It is possible to see handicrafts, which constitute the Turkish-Islamic cultural heritage, in historical artifacts, various museums and in a very few workshops that still continue to make traditional handicrafts.

The motifs and other ornamental elements in traditional handicrafts, the meaning and visual structure it carries in terms of communication since the day it was produced, constitute an important research area in terms of visual communication design. In addition, the fact that it is being used today by converting to the same or new forms also requires that it be considered as an up-to-date graphic design element.

In recent years, we can see that motifs are used in fabricated products such as fabric, plastic, ceramic, wallpaper, or on order products in the printing and publishing sector (posters, brochures, catalogues, invitations, business cards

book-magazine cover), either in kind or by processing them as vector or pixel in computer environment. Some motifs, which have an important place in our cultural heritage, can be processed as orient motifs and can be seen on websites. Today, when the world has turned into a unicultural global structure, the motifs that are a part of our cultural heritage need to be analyzed and recorded in a very comprehensive way.

For this reason, the artistic and graphical dimension of the visual structure in traditional handicraft products should be explained in technical detail. It is a necessity that all kinds of crafts belonging to us and the products that have been put forward to date should be dealt with in every aspect.

2. Motif Definition

Motif is a symbolic shape. Symbolic form is the formal expression of the idea to be told. These are often forms that are not copied exactly from nature but are the result of an event or emotion (Ögel, 1991: 416). Symbol is a sign used to express a thought. According to this understanding, representative shapes made to indicate any form of nature are called symbolic motifs. With another understanding, they are symbols used to express the inner world of man. Motif is the way societies express their traditions, tastes, understanding and beliefs with symbols. The combination of motifs forms the patterns. All these are also called ornamentation (Sevim, Canay, 2013: 63). When one of the motifs with a modular structure is removed, the pattern begins to deteriorate. This situation shows that the motif composition is built on balance.

In ornamental designs, the motif is its smallest unit as a basic element. As an ornamental pattern can be formed with a single motif or combined compositions can be formed by combining several motifs (Gürcüm, Çifçi, 2017: 16). Motifs are almost DNA of a cultural structure or architects of social geneticism (Özdingç, 2016: 526).

The prohibition of depiction in the Islamic belief, in a clearer expression, to avoid depicting living things, has led the Islamic artist to make plant motif (Leloğlu Ünal, 1999: 526). Despite tens of thousands of kilometers of geographic differences, the origin of Turkish motifs is one. These motifs are based on two main sources such as Turkish culture and Turkish mythology (Özönder, 1996: 249). Almost all of the symbolic motifs seen in Turkish Art contain human emotions. Most of the time, the meaning of the motif in the decorative feature and the thought that the word he wants to say remained behind the function, all of them have turned into a form (Sevim, Canay, 2013: 65).

2.1. Visual Communication Design

Visual communication design is a versatile field based on producing solutions for communication needs, especially in the field of corporate communication, using visual language. In the digital age, where information is at its peak, visual expression has come to the fore because there is no time to read. Our age has reached a dimension that can be called the age of visual communication or visual culture. Therefore, 'visual communication design' is in a very important position. Jorge Frascara (2004: 4) describes visual communication design as a profession that includes three basic elements: 'design as method, communication as purpose, visuality as environment'. Visual communication design is an interdisciplinary field with a wide range of applications. Visual communication design covers many application areas such as corporate identity, promotion and advertising, broadcast graphics, illustration, packaging design, information design, routing design, exhibition design, photography, web design, animation, motion pictures, game design, 3D modeling, and multimedia production. These applications can be found in all digital communication channels as stationary, mobile or interactive, on the internet, on television and in all kinds of printed media. In this sense, our environment is full of visual communication design applications. (Uyan Dur, 2015: 444).



Pic. 1 Traditional Turkish handicraft motif products

3. Classification of Traditional Turkish Handicraft Motifs According to Inspirational Sources

Handicraft works are usually formed by being inspired (influenced) by the living environment. This interaction appears in every point of the work, starting from its formal structure to all its elements. The interaction took place in the form of physical imitation as well as in the form of emotional interpretation. Turkish handicraft motifs are divided into five main groups according to their sources of inspiration. These;

1. Motifs inspired from nature
2. Motifs inspired from the human body
3. Motifs inspired from animal
4. Motifs inspired from plant
5. Motifs inspired from object

3.1. Motifs Inspired from Nature

3.1.1. Star Motif

Star motif symbolizes the human destiny. It represents productivity. Star is the symbol of light (Kalay, Subaşı, 2016: 76).

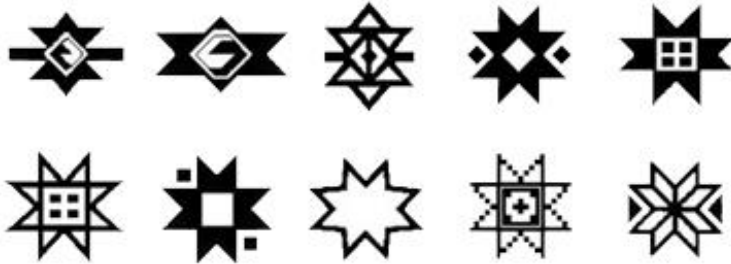


Fig. 1 Star motif examples

3.1.2. Waterway Motif

Waterway motif expresses the importance of water in human life. Water is the symbol of rebirth, bodily and spiritual renewal and continuity of life.



Fig. 2 Waterway motif examples

3.1.3. Shemse Motif

Shemse motif is derived from the Arabic word ‘Shams’, which means sun, and this motif is similar to the sun, so it is named as Shams.

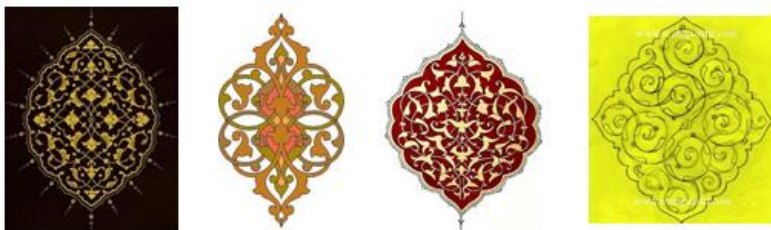


Fig. 3 Shemse motif examples

3.2. Motifs Inspired from the Human Body

3.2.1. Hands on Hips Motif

Hands on hips motif is a symbol of motherhood, femininity and productivity. The human figure is hardly visible in Anatolian carpets and flat webbing circles. The decorations, more commonly referred to as are likened to the human figure. In all parts of Anatolia, it is a symbol of abundance and fertility.

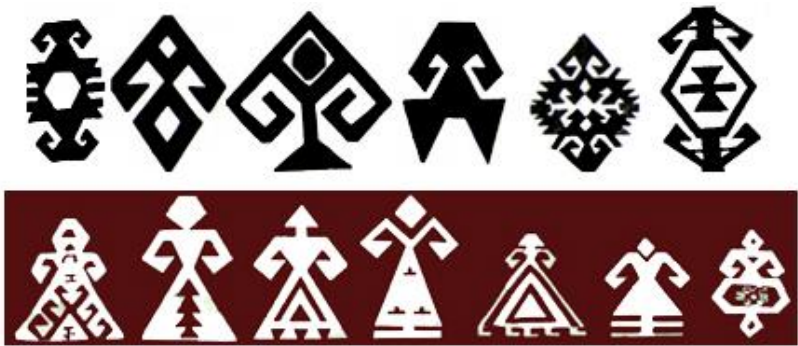


Fig. 4 Hands on hips motif examples

3.2.2. Eye Motif

Some people are believed to have bad, harmful, and powerful looks. Eye motifs were revealed due to the belief that the human eye is the best protection against evil glances. Thus, it is thought that eye contact will be prevented (Deniz, 2000: 184; Ölmez, 2012: 503).

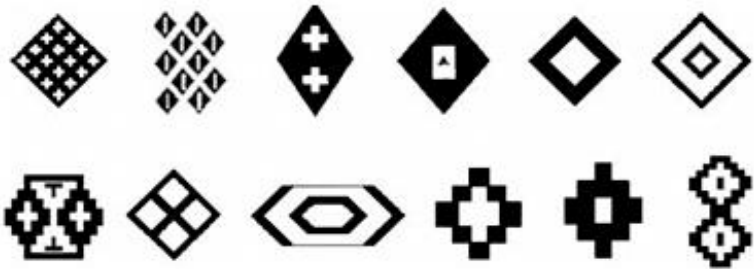


Fig. 5 Eye motif examples

3.2.3. Hair Tie Motif

Hair tie motif is an indicator of desire for marriage. Symbolizes birth and reproduction (Kalay, Subaşı, 2016: 75).

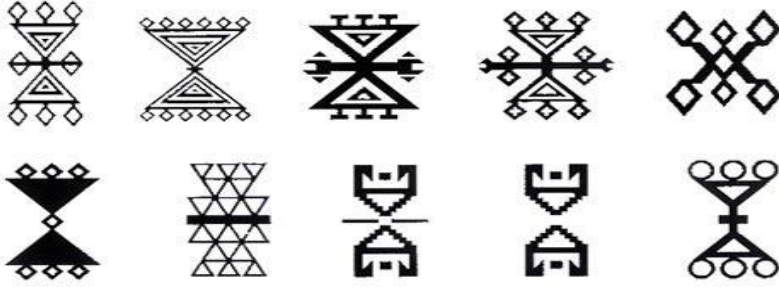


Fig. 6 Hair tie motif examples

3.3. Motifs Inspired from Animal

Ornamentation inspired by animals as well as plant decoration dominated Turkish architecture and handicrafts, especially until the sixteenth century. With this century, it began to be a supplementary motif besides the vegetative decoration and disappeared completely in the eighteenth century. Animal motifs are also divided into two groups;

Natural Animal Motifs: Until the fifteenth century, it is seen that ornamentation made from various animal shapes or details was very adopted in architecture and other art branches.



Fig. 7 Natural animal motif examples

Stylized Animal Motifs: Birds are the most commonly used motifs of this group. Especially eagles and pigeons are widely adopted. Wild animals such as lions, tigers, wolves and bulls, domestic animals such as horses, deer, rabbits and goats, as well as fish and other marine animals were stylized and used as motifs.



Fig. 8 Stylized animal motif examples

3.3.1. Scorpion Motif

The scorpion motif is one of the motifs used in Anatolia for protect against evil. It is believed to have protection against enemy attacks from outside.



Fig. 9 Scorpion motif examples

3.3.2. Çintemani Motif

Çintemani motif consists of three speckles inspired by leopard patterns. It symbolizes power and strenght. It is believed to have protective properties. It was frequently used in the clothes and caftans of the Ottoman sultans. Its origin is based in the Far East.



Fig. 10 Çintemani motif examples

3.3.3. Cleat Motif

Cleat is a sign of productivity, heroism, strength and masculinity. However, this symbol is an expression that the person is happy and expresses this clearly.

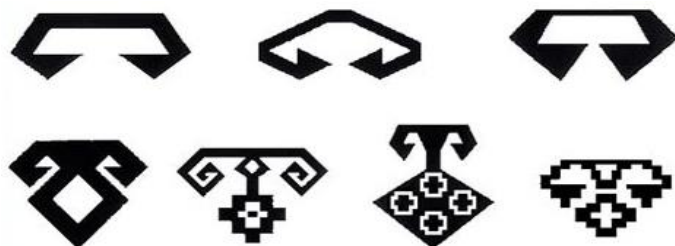


Fig. 11 Cleat motif examples

3.3.4. Wolf Trail Motif

Humans use wolf trail motif to protect them from wolves and monsters. In prehistoric times, people believed it was correct to imitate these animals or make shapes similar to them to protect themselves from dangerous animals.

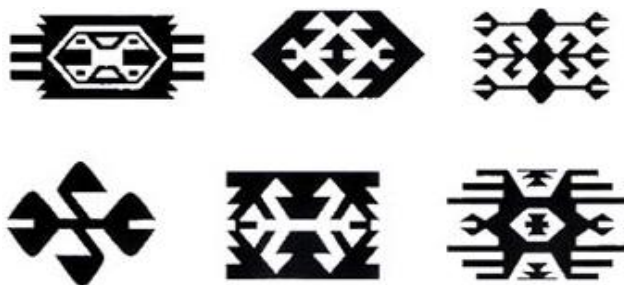


Fig. 12 Wolf trail motif examples

3.3.5. Bird Motif

The bird motif is a symbol of happiness, joy and love. Symbolizes power and strength. It is the imperial symbol. Birds also refer to divine messengers and a long life. Especially it seen often in carpet designs.

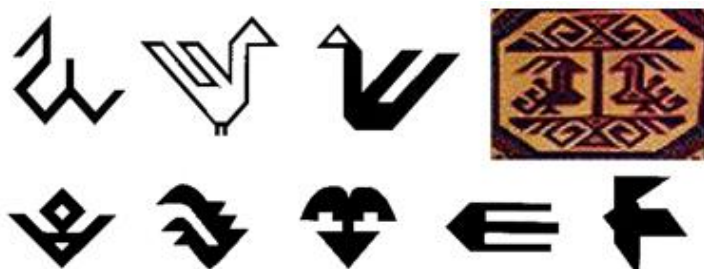


Fig. 13 Bird motif examples

3.3.6. Rumi Motif

They are the motifs that come from the stylization of animal shapes. There is also a style consisting of folds and intricate branches called Rumi (Yetkin, 1984: 174). The Rumi motif, a lithe motif, has shown a geometric change due to difficulties in its application in some crafts (Gönül, 1965: 243).

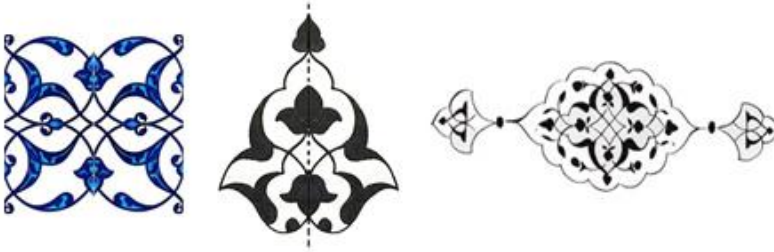


Fig. 14 Rumi motif examples

3.3.7. Serpent Motif

The serpent has been the symbol of the ground and underground in Central Asian Turkish belief. In Anatolia, it has symbolized evil in weaving with the effect of beliefs about underground from past to present (Ölmez, 2010: 13). The deadly and poisonous feature of the serpent became an element of fear for the nomadic Turkmens living in tents, and as a result of this fear, protective motifs emerged (Alp, 1998: 154-155).

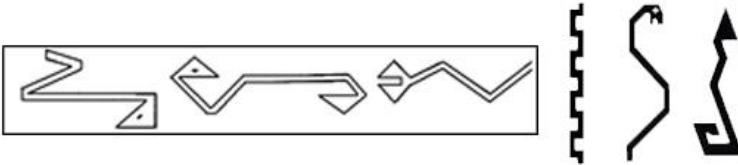


Fig. 15 Serpent motif examples

3.4. Motifs Inspired from Plant

There are a variety of flowers, leaves, trees and fruits as plant motifs. In flower motifs; tulip, carnation, poppy, rose, hyacinth, haseki earring, violet, daffodil etc. has been used. Various forms of these flowers have been produced. For example, 312 types of tulip motifs have been identified only on the wall tiles of historical monuments found in Istanbul. Different tulip forms on old tombstones are over 350. In fabrics and embroideries, 585 varieties were counted (Akar, Keskiner, 1978: 57). Plant motifs were used as close to their natural form, as well as stylized in a new form. Accordingly, plant motifs are divided into two groups;

Naturalist Plant Motifs: Naturalist plant motifs, which were used extensively from the first half of the 16th century to the end of the 17th century, show a mature understanding of art. In this period, which we can call classical Turkish ornamentation, stylized naturalist flower motifs were used. Flowers such as tulip, rose, carnation, bayonet, violet, daffodil, flowers such as haseki earrings, spring branches, cypress trees and vine leaves have created a new style. The hatai, which consists of naturalist flowers and leaves are among the most common used items of decoration by the Ottomans (Çağman, 1983: 37).



Fig. 16 Naturalist plant motif examples

Stylized Plant Motifs: Often they are stylized in such a degree that the origin of the flower is unknown. Such motifs are called ‘Hatai’. In these motifs, various cross-sections of the flowers are stylized as large, small, from bottom to top, from side. However, it is very difficult to pinpoint the species of flowers (Özkeçeci, 2014: 803).

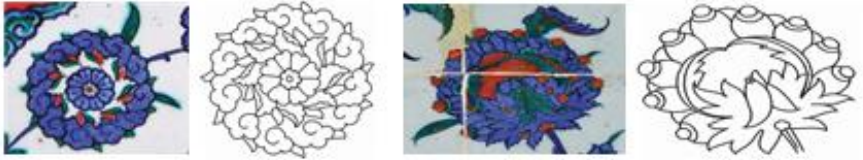


Fig. 17 Stylized plant motif examples

3.4.1. Rose Motif

Rose motif, which is frequently used in both illumination and tiles, has spread to other branches of art, having a wide range in terms of its use in traditional Turkish handicrafts. Therefore, it represents divine love as well as human love (Bayazit, Coşkun, 2013: 7).

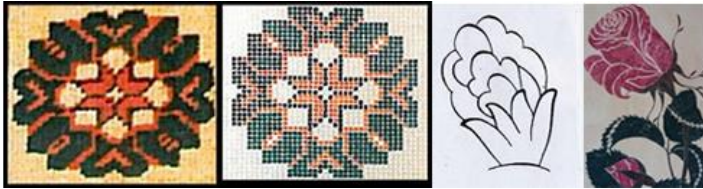


Fig. 18 Rose motif examples

3.4.2. Hatai Motif

It has been etymologically called Hatai, meaning that it belongs to the city of Hata in Chinese Turkestan. It is a form of decoration formed by the intertwining of stylized leaf, sprout and flower motifs. Hatai, which is one of the the most important types of decoration art, is one of the most diverse and widely used (Züher, 1989: 6).

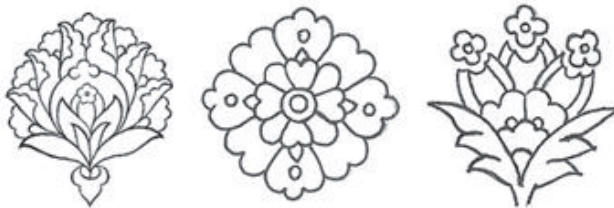


Fig. 19 Hatai motif examples

Tree of Life Motif

The Tree of Life forms the vertical symbolism of life that is constantly evolving, rising to heaven. In a broad sense, it symbolizes the universe lives in constant development and change.

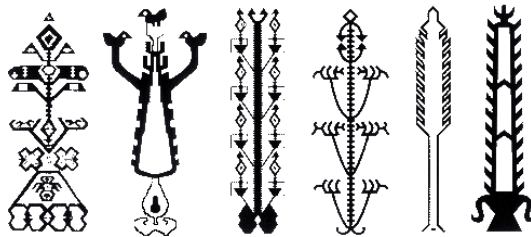


Fig. 20 Tree of life motif examples

3.4.3. Clove Motif

Carnation motif represents purification, renewal and innovation. Home, a new job, a new order, a new love are all hidden in the leaves of a perfectly opened carnation.



Fig. 21 Clove motif examples

3.4.4. Tulip Motif

Tulip represents the Unity of Allah in Sufism. The name of ‘Allah’ is written with the letters ‘Alif, lam and he’.



Fig. 22 Tulip motif examples

3.4.5. Cocklebur Motif

Cocklebur is a cottony plant that clings to people’s clothing and to the feathers of animals. It is believed that he could afford to fend off evil looks. On the other hand, the phrase like cocklebur, which means full of flowers, describes the use of this motif on flour bags as a symbol of abundance.



Fig. 23 Cocklebur motif examples

3.5. Motifs Inspired from Objects

3.5.1. Trammel Motif

Trammel motif is the name of the chain that is attached to their front two legs of the horses and prevents them from moving away from the grassland. At the same time, trammel motif has been defined by different names in different sources and appears with names such as the Shackles motif. Symbolizes the continuation of the family, love and unification. This motif symbolizes ‘devotion and the eternal unity of the family institution’ (Sevim, Canay, 2013: 65).

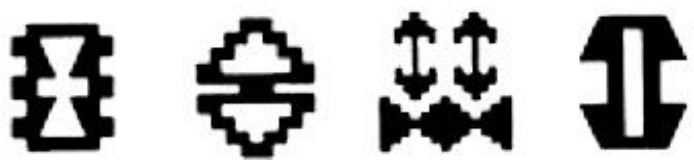


Fig. 24 Trammel motif examples

3.5.2. Stamp Motif

Throughout history, Turks have used certain figures, stamp, to express concepts such as family, oba, carve, height, state. Stamps are a symbol of the existence of that person and society. This practice ensures that the family name is maintained and valuables belonging to the family are not lost.



Fig. 25 Stamp motif examples

3.5.3. Earring Motif

Thanks to that motif the young girl who wants to get married indirectly shows her wish to her family.

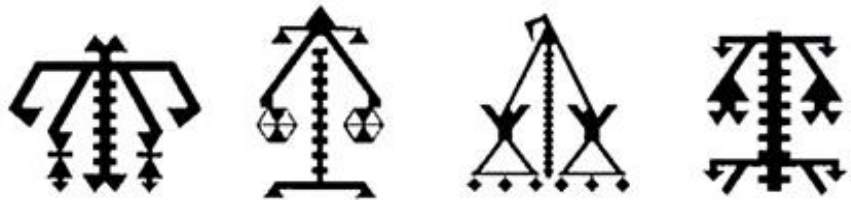


Fig. 26 Earring motif examples

3.5.4. Nazareth (Amulet) Motif

The Nazareth (amulet) motif is a symbolic figure presented by the belief system that has been used in Anatolia for centuries. The amulet motif is a type of written talisman believed to possess a magical and religious power, to protect its owner from dangerous external factors. It is believed that there is a power in the gaze of some people, that these gazes cause evil, harm, misfortune and even death. For this phenomenon called Evil Eye in Anatolian society, various objects called Evil Eye and reduce the effect of evil eyes, are used. These objects protect those who carry it (Oyman, 2016: 51).

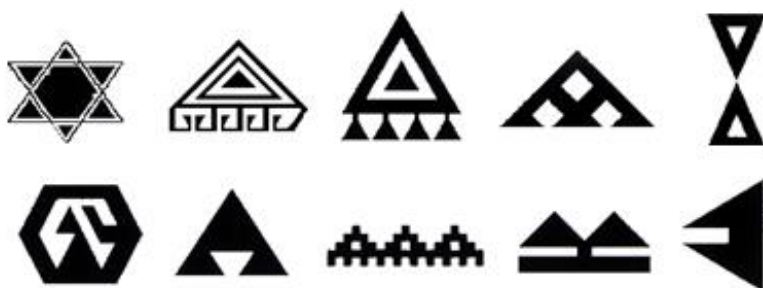


Fig. 27 Nazareth (amulet) motif examples

3.5.5. Crate Motif

This motif usually symbolizes to a young girl's dowry chest. The objects inside this chest are reflected in the pieces she woven, knitted and processed the expectations and hopes of the young girl as she was to be used in her husband's home.

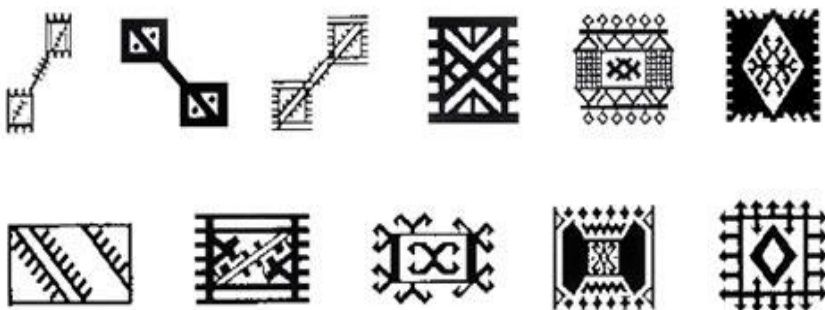


Fig. 28 Crate motif examples

3.5.6. Comb Motif

The hand, finger and comb motif includes five lines and five points, representing what the fingers protect from the evil eye. The hand motif combines efficiency and good luck.

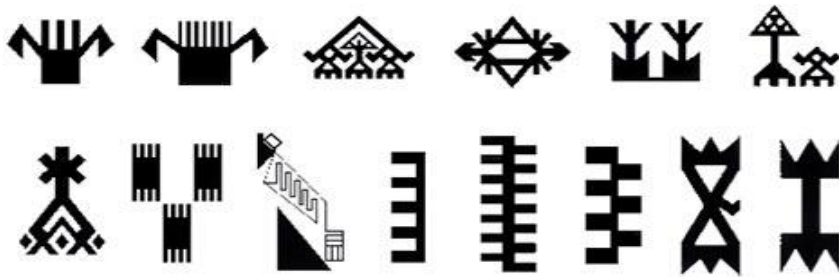


Fig. 29 Comb motif examples

4. Classification of Motifs According to Their Meanings

Motifs related to birth and reproduction: hands on hips, cleat, human, hair tie, earring, trammel, chest, star

Motifs symbolizing abundance: the tree of life, cleat, bull, hands on hips, floral

Motifs symbolizing strength: çintemani, cleat

Motifs expressing love, and devotion: rose, tulip, bird, trammel, hatai

Motifs symbolizing life: waterway, cocklebur, hand, finger, comb, amulet, nazareth, eye

Motifs used to protect life: serpent and dragon, scorpion, wolf mouth, wolf trail.

Motifs related to immortality and lineage: the tree of life, stamp.

Conclusion

Handicrafts contribute greatly to the formation of a bond of cultural identity between the past and the present. Therefore handicrafts constitute an important part of the cultural memory of a nation. Handicrafts have a wide range of products. Handicraft products have been used as a means of communication in conveying various messages with the visuals featured on them as well as their functions. The motifs used in handicrafts are symbolized forms of a society's traditions, beliefs, and lifestyles. The main characteristic of Turkish handicrafts is that they are mainly for ornamental. The motifs used in Turkish ornaments are divided into two main groups in terms of visual design. In the first group, motifs derived from stylization or symbolization of objects in plant and life are included. The second group contains motifs created from geometric lines.

The visual richness revealed as much as the meaning of each motif used in the handicraft products can still retain its charm in today's advanced possibilities. Besides reaching an advanced level throughout history with the richness and variety of motifs used in Turkish hand crafts, it still has an important place in terms of aesthetics today.

When the motifs in Turkish hand crafts are analyzed in terms of visual communication design, it is evident that they have a distinctive style with fine details and limited use of color. In addition, great attention has been paid to symmetry in the motifs.

Today, these motifs appear in the patterning of both personal and fabricated products. With today's advanced technologies, patterns and ornamentals can be prepared very easily. But even in these studies it is evident that they were unwittingly influenced by the cultural heritage of the past.

The article aims to create a general database by classifying the motifs in various Turkish handicrafts from several categorical points. However, more detailed studies on this subject should be carried out and the decoration elements or images of each hand craft should be taken into consideration. Dozens of articles on Turkish handicrafts and motifs have been published. However, the lack of a comprehensive cataloging study of the motifs discussed in these articles constitutes a significant shortcoming. This work should be a means of starting and continuing in terms of creating a data system on the motives.

The rich heritage of Turkey, with the help of different areas of expertise should be analyzed and recorded in all aspects. In terms of visual communication design not only the images in traditional handicrafts but also the patterns, textures and motifs in the images consisting of carving, relief or drawing in all historical monuments in Turkey should be recorded. In the second phase, by starting from these data, the missing faint parts can be completed in computer environment and the holistic structures can be created. This catalogue ensures that the works are registered as a national resource and also creates a data system that will be available to those who want it.

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Chapter 26

“Acceptable Motherhood”: Motherhood at the Intersection of Neoliberal and Conservative Politics in Turkey¹

Sibel EZGİN-AĞILLI²

¹ This chapter is a reconsideration of the debate on motherhood in Turkey, which emerged within the conceptual framework of the author's doctoral dissertation titled “İktidar Alanlarının Kesişiminde ve İlişkiselliğinde Annelik Algı ve Pratikleri: Blogger Anne(lik)ler” (Motherhood Perception and Practices at the Intersection and Relationality of Power Domains: Blogger Mother(s)).

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1. INTRODUCTION

Motherhood is affected by social, cultural, political, economic phenomena and processes. Therefore, it is not possible to understand the facts of motherhood independently of its own environment. Each nation has a unique political structure in its own historical cycle. According to this existing political structure, they develop discourses and impose sanctions in order to control the female body and construct motherhood. In order to better understand the construction process of motherhood in Turkey, which has a patriarchal culture, it is necessary to read today's politics together with the economy. Turkey has been governed by the same political power since 2002. Coming from the centre of right-wing politics, this power adopts the neoliberal policies and conservative ideology that have been implemented in Turkey since the 1980s. Thus, it is necessary to look at how the political practices of neoliberalism such as flexibility, privatization and non-unionization and the conservative ideology's policies related to population, familism, family and motherhood, gender discourses have played a role in shaping women's motherhood. When neoliberalism and conservative politics are considered together, it is seen that the governments do not support the equality of men and women, that women can only be mothers and that they should fulfil all their motherhood responsibilities successfully. At the same time, the picture of "acceptable motherhood" in Turkey is drawn on the axis of policies and discourses. According to this, it has been seen that "acceptable motherhood" is conceived as being heterosexual, with at least three children, self-sufficient, conscious, working as a full-time mother rather than working somewhere, trying to contribute to the raising of Turkish, Muslim, religious generations and children who are beneficial to their country and nation. As it can be understood, in this chapter, it is discussed how motherhood is determined in the light of political issues in Turkey.

2. NEOLIBERAL POLICIES AND MOTHERHOOD

The right-wing government (AKP/Justice and Development Party), which defines itself as conservative democrat in Turkey, has been in power alone since November 3, 2002 (2022). This government sees the strong implementation of the neoliberal globalization program on the axis of the European Union, as a solution to Turkey's political regime and economic crisis problems (Özkazanç, 2014: 96). What is understood from the neoliberal paradigm is an economic order in which the market economy gains strength while the economic powers and responsibilities of the state are reduced, privatization, de-unionization, commodification gain importance and precarity increases. This economic order also dominates the cultural, social, moral and political domains (Özbay,

Terzioğlu and Yasin, 2011: 15-16). As it can be understood from here, the significant transformations in the neoliberal period, especially in the economic field, also affected the social segments. The first segment that neoliberal policies affect economically is women. Neoliberal policies constitute an obstacle to women's participation in the workforce and their visibility in the public sphere. It prevents women and men from participating in working life as equal citizens. Since motherhood in Turkey is accepted as the basic element of femininity and an innate feature of women, motherhood is seen as a universal, unchangeable and fixed part of a woman. From this point of view, child care and child rearing are accepted as a source of values specific to women.

Furthermore, the prevalence of male-dominated working conditions in workplaces continues. This pushes working mothers to a more disadvantageous position compared to men because the profile of an "ideal employee" is drawn in male-dominated working conditions. An ideal employee is defined as a person who works full time at the workplace, prioritizes work life over family life, and works non-stop until retirement (Çakmak-Otluoğlu, 2015: 76). The definition of ideal employee accompanied by gender-based normative roles makes it easier to dismiss women as their leave periods after becoming a mother, conflicts between maternity and work life and declines in job performance are not welcome by employers.

2.1. The Self-Sufficient Neoliberal 'Mother' Subject

Neoliberalism constructs a new subject that can adapt to its own flexible conditions. Neoliberalism typically imagines the individual as an 'entrepreneur'. An entrepreneur is an active, responsible, rational, preferential individual who tries to improve his/her quality of life. Thus, the individual stands out as a person who is successful in business life, who prepares himself/herself for social risks, who is competitive, and who is responsible for the destiny of himself/herself and his/her family. Self-management is encouraged with these characteristics that individuals are expected to have (Özkazanç, 2008: 636-637). Moreover, there is managerial rationality in the fabrication of the neoliberal subject, who is committed to continuous improvement and has placed the story of self-management and self-actualization at the centre of his/her life.

Along with the individualization, privatization and de-unionization policies of neoliberalism, schools and health institutions have been removed from the intervention areas of the state. With the disappearance of state intervention and the competitiveness and market orientation of these institutions, mothers are faced with being personally responsible for their children's health and education. In this sense, mothers have become responsible for raising successful, qualified

and healthy individuals. They are left alone with risks involved in the child's education and health or other care problems, and have to take the responsibility for their children's failures and defeats. Thus, "the most successful child" is identified with "the most successful mother", "the most qualified child" with "the most qualified mother" and "the healthiest child" with "the best mother". The "ideal child perception", which rises as a result of performance and competitive child care and raising practices, gives rise to the "ideal mother subject". In order to be an ideal and conscious mother, women, of their own free will, without any pressure, participate in mother university projects, motherhood seminars or read advice books about motherhood to raise a well-educated, qualified, -spiritually, physically, psychologically- healthy child. Conscious mothers voluntarily fulfil their full-time maternal responsibilities, such as deciding which school their child will attend, encouraging and taking their child to attend foreign language courses, and monitoring the health of the child month by month, starting from pregnancy. These attitudes also support Hays' (1991) intensive motherhood stereotype. The success of the mother as a subject is possible through intensive motherhood attention. The mother who lacks such attention is defined as unsuccessful. Therefore, motherhood, which is constructed on the axis of neoliberal policies, constructs a self-sufficient mother subject in raising children.

3. FAMILISM AND MOTHERHOOD AT THE FOCUS OF CONSERVATIVE DISCOURSES AND POLICIES

The problems of motherhood should be understood not only with the logic of neoliberalism's operation in different market conditions, but also with the discourse of conservatism. The predominance of the conservative side of the political climate in this period led to the conservativeness of the society and culture (Dedeoğlu and Elveren, 2015: 9-10). The conservative understanding of government has emphasized the place of the family in the society at every opportunity, glorified traditional gender roles, denied gender equality and strengthened patriarchal values. It should be noted that these phenomena are clearly grounded on the basis of women's motherhood (Acar and Altunok, 2015: 33-34). For this reason, in this period, the politics of family and more specifically the politics of motherhood are emphasized. The most important indicator of the politics of familism was the replacement of the Ministry of Women and Family with the Ministry of Family and Social Policies on the basis of the Law No. 6223 in 2011 (Kerestecioğlu, 2013; Alkan and Çakır, 2014; Öztan, 2015). The abolition of the Ministry of Women also means that the problems of women in society are trivialized. Women's organizations reacted to the abolition of the Ministry responsible for women on 6 June 2011 and more than three thousand

signatures were submitted to the Prime Ministry. Thereupon, the political powers said: “We are a conservative democratic party. Family is important to us!” (Alkan and Çakır, 2014: 260). What is meant with ‘woman and her body’ by the government, which describes itself as a conservative and democrat government, is the family. According to the thought system of conservative governments, family means woman and woman means mother. In 2012, this synonymity between family, woman and mother was underlined again by the political powers: “Some... are raging at the term ‘mother’. They can’t stand it. When we say mother, he says we are against mother - woman, woman, woman!.. who do we call mother? Isn’t she a woman?” (Acar and Altunok, 2015: 35).

On the other hand, the family, which is centralized in terms of conservative politics, is the authoritarian and normative notion of family, which is the product of an open opposition to egalitarian dynamics (Öztan, 2015: 102-104). Women are not considered as autonomous and free individuals on an equal basis with men, but as individuals who fulfil their familial, social and national duties and live for others, and it is stated that men and women are different from each other. Political powers handle the idea of difference in a way that reinforces heteronormativity and patriarchal gender inequality on the axis of reciprocity and complementarity of the male and female genders. The discourse used by the governments to emphasize the difference between men and women is “fitra”. The fitra discourse refers not only to the biological difference, but also to the difference between men and women in the social sphere (Köse, 2014: 87-88). In this connection, in one of his speeches, the Prime Minister expressed his thoughts as follows: “You cannot make men and women equal, it is against their fitra. Their nature, body and fitra are different. You cannot subject a pregnant woman to the same conditions as a man in business life. You cannot put a mother who has to breastfeed her child on an equal standing with a man. You can’t make women do everything men do Give her a pickaxe and shovel and let her work with them; there’s no such thing. It is against her delicate nature ...”¹ Through this discourse, woman’s natural place is accepted as “home” and her sacred duty as “motherhood”. Conservative power mechanisms, using the discourses of traditional Islamism, define working mothers as “lacking” and “half” as intellectual activities and working outside the home disrupt their main duty of motherhood and household duties, and they expressed their opinions about working women as follows: “I cannot accept working life’s becoming an alternative to motherhood. A woman who overlooks her motherhood duties by saying ‘I am working’ is actually denying her femininity A woman who

¹ https://www.bbc.com/turkce/haberler/2014/11/141124_kadininfitrati_erdogan (Erişim: 15 Mayıs 2016)

refuses to be a mother and gives up running her home is in danger of losing her originality, no matter how successful she is in the business world. She is lacking, she is half. To refuse motherhood is to give up half of the person ...”²

On the other hand, conservative ideology strengthens the policy of family and motherhood. The “familism policy” aims for women to be good wives and to undertake the care of children (Köse, 2014: 112-113). The government, which supports neoliberalism and conservative ideology, has made changes in the understanding of social state and in the field of social care. As a result of this change, the state does not allocate sufficient budget for kindergartens and nursing homes for the elderly. Instead, women are provided with small-scale contributions by the state and they are expected to meet their care needs in domestic areas. Thus, since most women cannot receive care support and are faced with being employed without insurance for lower wages, they receive low-limit care fees given by the state and withdraw from the areas of employment (Acar and Altunok, 2015: 44). With the predominance of the nuclear family phenomenon in Turkey, women who are left without support often stay within the boundaries of domestic areas to become full-time mothers.

In the Islamic tradition, when feminist thought is excluded, there is no discussion of “feminine consciousness” or “women’s right”. According to the political powers that support conservative thought, Islamism and feminism cannot go together because the fitra itself does not allow the discussion of an identity of femininity and masculinity. For this reason, the duty of motherhood, which is most suitable for the fitra of womanhood, is blessed by the governments, it is implied that the accepted citizen is a mother, and women who deny the duty of motherhood are criticized: “Our religion has given women a position, the position of motherhood. It gives another position. The heaven is laid under her feet. Not under the father’s feet but the mother’s. We kiss the bottom of our mother’s feet The mother is something different. Her positions cannot be reached. But there are those who understand, there are those who do not. You can’t explain this to feminists, for example, they don’t accept motherhood. But those who understand are enough for us; we continue with them.”³ It can be stated that the discourse of fitra, the blessing of motherhood, is related to the applied pronatalist policies.

² https://www.bbc.com/turkce/haberler/2016/06/160605_erdogan_kadin (Erişim: 11 Nisan 2016)

³ <http://www.radikal.com.tr/turkiye/erdogan-kadin-ve-erkegin-esitligi-fitrata-ters-1237900/> (Erişim: 11 Nisan 2016)

3.1. Pronatalist Discourse: “At Least Three Children”

The issue of reviving the family institution has been understood as a sign that a change will be made in the antinatalist policy adopted with the thought that the population has increased sufficiently since the 1960s and in order to restore the birth rate, pronatalist policies have been implemented and pronatalist discourses have begun to be produced. The fact that since 2008, the political powers have expressed the discourse of “at least three children” in every opening, every meeting on women, and that it is repeated to new couples in wedding ceremonies is the proof of this (Kerestecioğlu, 2013: 17-18). Later on, the government revised three children to five: “1 bankruptcy, 2 spinning, 3 good, it will take us a little further. That’s why we need 4-5”, thus increasing the expectation of motherhood from women. In response to the criticisms levelled at the use of “five children” discourse instead of “three children” discourse, it is said that what is meant with “three children” is “at least three children”. This view, which tells women to give birth constantly, contains shades of both conservatism, neoliberalism and nationalism: It includes the objectives of keeping the rate of the working population aged between 15 and 65, which is defined as the “demographic window of opportunity”, high, that is, keeping the competition in the labour market alive, supporting the reproduction of a conservative generation and emphasizing that the main function of women is motherhood (Kerestecioğlu, 2013: 18).

The change in population policies is interpreted as a precautionary step against the danger of aging population as in Europe, and it is conveyed to the public as a priority domestic issue by other government members in Turkey in different environments. In the three-child issue, the language of all government members has met on common ground. It has become commonplace for many ministers, politicians, governors or public officials representing the public authority to repeat their request for “at least three children” in similar environments (Acar and Altunok, 2015: 34). The Ministry of Family and Social Policies stated that the population of Turkey is getting older and the understanding of “at least three children” is not a “conservative understanding of men”, but a scientific approach, and the following explanation was given to justify the “at least three children” policy; population of Turkey has started to age, thus a qualified young population should be planned, and it is emphasized that the structure of the family should be strengthened on the grounds that a strong family would create a strong nation.⁴

⁴ [\(https://bianet.org/bianet/toplum/134814-sahin-uc-cocuk-politikasini-anlatti%20\(16%20Aral%C4%B1k%202011,%20Cuma\)\)](https://bianet.org/bianet/toplum/134814-sahin-uc-cocuk-politikasini-anlatti%20(16%20Aral%C4%B1k%202011,%20Cuma)) (Erişim: 09 Mart 2016)

3.2. Population Planning, Abortion and Caesarean Section as the Issue of the Nation

The government and the Ministry of Health have focused on three factors that prevent the birth and accordingly population growth: population planning, abortion and caesarean section, which has become common with the development of medicine. Population planning has been defined as negative policies aimed at the extinction of a nation or generation. Political power mechanisms have made such explanations as “in this country for years they committed a betrayal of birth control and tried to cause the extinction of our generation and in this country, birth control practices have been used for years to wipe out the nation.”⁵ Subsequently, the Ministry of Health imposed restrictions on access to birth control methods, which were previously available free of charge from health centres, and attempts were made so that people could have access to such methods by paying a fee. In addition, by presenting birth control and population planning within the framework of a religious discourse, they emphasized that a Muslim family, especially a woman in a Muslim family, should not have such an understanding. Such a statement also shows that the generation that the government wants to increase is Muslim and that the subjects belonging to other religions in the country are ignored and in relation to population planning, pro-birth thoughts were expressed; “Population planning, birth control, no Muslim family can have such an understanding. Whatever my Lord says, whatever our beloved prophet says, we will follow this path.”⁶ In addition, the debate initiated by the government saying “we need a young and dynamic population” turned into the claim “abortion is murder”, and it was attempted to reduce the legal abortion period, which was to ten weeks, to eight weeks and when women who resisted the change took to the streets, it seemed to have been put aside but in fact this change was actually put into practice as eight weeks (Kerestecioğlu, 2013: 18).

On the other hand, caesarean section births are not viewed positively by the government. They are of the opinion that caesarean section practices will have a negative impact on population rates, and this negativity will cause Turkey’s power to fall behind other nations. In order for the nation to be strong and to be ahead of other nations, women should fulfil their national duty of motherhood: “They’ve operated birth control mechanisms in this country for years. They have almost sterilized our citizens. They have done everything about it, including medical interventions such as caesarean section and abortion. They have always

⁵ <http://www.diken.com.tr/erdogan-tazeledi-hicbir-musulman-aile-dogum-kontrolu-anlayisinin-icinde-olamaz/> (30/05/2016)

⁶ <http://www.diken.com.tr/erdogan-tazeledi-hicbir-musulman-aile-dogum-kontrolu-anlayisinin-icinde-olamaz/> (30/05/2016)

done such things. While doing these, they almost committed murder, they said, “You are dying, we will save you from death”. Thus, they imposed caesarean section on our nation. In fact, their goal was different. What they really want is to decrease the population of this nation so that this nation will lag behind in the race of nations. But we are overturning this, we have to overturn it. That’s why families should take great responsibilities. I especially call out to mothers ... You are the ones who will spoil this game ... As a Turkish mother, as a Turkish woman, you are the first to defeat this”.⁷ Talks about caesarean section births contradict neoliberal rationality as the driver of the transformations in the field of health (Acar and Altınok, 2015: 41). Despite this, the insistence on pro-natural birth discourse is because it contradicts the three-child policy, with the thought that caesarean section will prevent families from giving birth to many children. The Ministry of Health, using naturalist discourses, emphasizes that caesarean section births harm the mother and the baby, and addresses families and women at every opportunity in a way that encourages normal birth. Thus, women are constantly addressed over their motherhood roles. In this way, neoliberal and conservative governments are trying to control whether women will become mothers, with which method the expectant mothers will give birth, and how many children they will have.

3.3. Conservative Families-Acceptable Mothers-Religious Generations

Another dimension of the struggle between power-women-family in the demographic transformation process is related to the care and upbringing of the child within the family. In conservative ideology, the concepts of family and morality form parts of the picture that complement each other. “In conservative ideology, it is possible for people to behave morally when they live in the family environment. The individual first takes responsibility in the family as a collective structure and becomes moral by acting in accordance with the natural functioning of his/her existence. According to the conservative ideology, an individual can be happy and reach a certain level of well-being in a personal sense, only through the moral behaviours he/she performs by taking the family order into consideration” (Köse, 2014: 112). In the social sense, the family also contributes to the national unity and to the welfare of society: structural problems such as violence, unemployment, poverty and child poverty, child labour and crime rates can only be resolved with a family structure built on morality. This conservative rationality’s conception of the morally-based family deepens the effects of

⁷ <https://m.bianet.org/biamag/kadin/161123-besikleri-bos-duran-halklar-imparatorluk-kuramaz27> (Erişim: 15 Mayıs 2016)

policies on women (Acar and Altunok, 2015: 44). Structural problems in society arise from the failure of the family to maintain its integrity in line with moral values and teachings. Since mothers are held primarily responsible for the education, care and upbringing of the child in the family, in case of children's deviance from moral norms or committing juvenile delinquency, mothers are the first people taken responsible for such misbehaviours of children. In the conservative ideology, it is expected that the child who is raised with moral values in the family in an individual and social sense is also expected to be raised religiously. As can be understood, the conservative subject is the religious person and what is expected from mothers is to raise religious generations. In 2012, the government said, "We will raise a religious generation. Do you expect a conservative democratic party to raise an atheist youth?" and thus indicated that their aim is to raise a religious generation and started to mention the citizen profile they envisioned in their discourses. In another speech, the following statements were uttered: "What is the most important task of a state? It is the safety of the generation. There is the safety of life and property, but right after, comes the safety of the generation. The state has to do this. I trust our women in raising benevolent children ..."⁸ and thus, the normative duties and responsibilities of women in raising religious, benevolent children for the country and nation were reiterated. As can be seen, the adoption of neoliberal and conservative policies, which establish a harmonious union when it comes to women/family/motherhood in Turkey, by the political powers shows that motherhood is at the intersection of both economic and political discourses. On the one hand, with the liberalization of the economy, it is seen that childcare has been completely put on the shoulders of women through social policies, on the other hand, a right-wing and conservative climate has gained dominance in which motherhood is re-sanctified, redefined and renegotiated (Öztan, 2015:103-104). Discourse elements that form the basis of right-wing policies, such as family, nation, reproduction, nature, difference, motherhood have been widely used. Accordingly, after the 2000s, acceptable motherhood has been reshaped by some policies and dominant discourses by the political powers in Turkey. On the axis of the policies and discourses, "acceptable motherhood" is conceived as being heterosexual, with at least three children, self-sufficient, conscious, working as a full-time mother rather than working somewhere, trying to contribute to the raising of Turkish, Muslim, religious generations and children who are beneficial to their country and nation.

⁸ <http://www.tccb.gov.tr/haberler/410/44278/erkek-kadini-birbirlerine-rakip-olarak-goren-anlayisi-reddediyoruz.html> (Erişim: 09 Nisan 2016).

CONCLUSION

In Turkey, the political powers that have advocated patriarchy, adopted neoliberal and conservative politics, and had a say in the administration since the beginning of the 2000s, have put the family and, in essence, motherhood on the basis of society. Thus, mothers are targeted for the increase of the population, the moral order of the society, the continuity of the conservative and Islamic society and care of children. Women are constantly exposed to political discourses and practices about what kind of mothers they should be, how many children they should have, how they should give birth, how they should look after their children and how they should raise them. This political understanding has built “acceptable motherhood” that is heterosexual, with at least three children, self-sufficient, conscious, working as a full-time mother rather than working somewhere, trying to contribute to the raising of Turkish, Muslim, religious generations and children who are beneficial to their country and nation. Thus, “acceptable motherhood”, which is the focus of conservative discourses, is recognized by the society, and a certain part of the population in Turkey -who adopts conservatism- does not accept other forms of motherhood than “acceptable motherhood”. Mothers who do not progress in this line of motherhood are judged and criticized. Thus, it is seen that policies play an effective role as much as social values and norms in shaping motherhood.

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Chapter 27

Secularization In The Modern Societies: A Contribution To The Secularization Theory

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1. Introduction

Religion is one of the main instruments for understanding any social phenomena. As it is well known, Marx, Durkheim, and Weber are the main pillars of the core of the classical sociological tradition. Although their perspectives and contributions differed in regard to the sociology of religion, each of them considered the subject associated with the advent of modernity. In this sense, they handled the relations between religion and society in the context of modernity, which is dependent on the foundations of rationalism by which construction of rational society consisting of rational individuals is enabled. Since Marx was one of the earlier contributors in this matter, it might be appropriate to start reviewing Marx's ideas on the concept of the sociology of religion.

The concept of religion constitutes relatively small portion of Marx's writings. Therefore, it would be hard to draw much on sociology of religion from his writings. Much of Marx's ideas on religion come in the first several paragraphs of his study titled *Contribution to the Critique of Hegel's Philosophy of Right: Introduction*. According to Marx, the criticism of religion is the basis for all the other criticisms. He explained the importance of the criticism of religion. To him "the critique of religion disillusions man so that he will think, act, and fashion his reality as a man who has lost his illusions and regained his reason, so that he will revolve about himself as his own true sun." (Marx, 2009: 132). Marx asserted that religion is not only representative of humankind, but it is also representative of consciousness and self-awareness. Therefore, to Marx, the sociology of religion is not simply the study of the impacts of religion on humankind, but it needs to serve the higher goal for better understanding of society and humanity.

Contrary to Marx, Durkheim did his the most popular work in religion. As it well known this reputable book *The Elementary Forms of Religious Life*, has been regarded as a classic in the field of sociology. In addition to sociology, main themes of the book are about anthropology and the scientific analysis of religion in human life. To Durkheim, only truth of the religion is that it is "socially effective and constitute part of the social reality that is the subject matter of sociology" (Allen, Pickering and Miller, 2002: 6). Such that "religion had two characteristics, performed two tasks, had two functions - one speculative and related to thought, the other practical and concerned with action. Even the most abstract system of beliefs has practical outcomes" (Pickering, 2009: 302). Durkheim saw religion not only as an illusionary phenomenon challenging rationality, but also as a social fact having very practical outcomes in society.

Weber also invested a great amount of time in the study of religion. Weber believed that a great deal of contemporary society was ingrained in the processes of religion. In his notable book, titled *The Protestant Ethic and the Spirit of*

Capitalism, he made a link between religion and the spread of capitalism. Weber put forward the thesis that that Puritan ethics have influenced and encouraged the development of Capitalism. Regarding the *Sociology of Religion*, to Weber, people follow their interests, and they try to realize their goals with the help of religious leaders and religious structures. Weber argued that scientific knowledge would spread throughout the world and that the education of the populace, as a whole, would increase giving way to a trend toward a rational perspective in all industrialized societies. To summarize, Weber clearly saw capitalism as a radical breakthrough towards secularization of the society.

Finally, all three thinkers Emile Durkheim, Karl Marx, and Max Weber, agreed to some extent in thinking that the advent of industrial/capitalist society undermines the importance of religion. In other words, modernity initiates secularization. At this point, secularization, as a social phenomenon, indicates the disengagement of religion with the process of modernization by which construction of individual who has been entitled to subjective rights as the right bearer entity, was enabled. Thus, individual as the main agent in the social, political and juridical processes could be “subject” of the new accumulation system called modern world system.

2. Conceptual Framework of Secularization

Giving a broad definition of secularization theory here is important due to the defining standpoint of this study. The definition of secularization is not used consistently. In other words, there is no any general accepted definition of secularization (Gorski & Altinordu, 2008). For instance, while some definitions focus on individual practices and beliefs, others emphasize the effects of religious rules, norms and/or clergy (Gorski & Altinordu, 2008).

The term secularization stems from the Latin word *saeculum*. It refers both to age and to the world (Swatos & Christiano, 1999). The word was also used to “distinguish between civil and ecclesiastical law, lands, and possessions” (Swatos & Christiano, 1999: 211). Many scholars accepted secularization or secularization theory as a decline in religion. For example, Berger claimed, “[the] process of religious decline is ‘secularization’ and the theoretical elaboration of it, by historians or social scientists, is called ‘secularization theory’” (Berger, 1990: 25). Berger also defined secularization in his other works as “a process in which religion diminishes in importance both in society and in the consciousness of individuals” (Berger, 2011: 443). As noted, secularization is seen as a result of modernization.

However, John Sommerville (1998) mentioned six different usages of secularization: First, it clearly refers the separation of religious activities from

the other aspects of society, such as economy and politics. Second, by the secularization a religious institution transforms into a secular institution. Third, secularization refers to “the transfer of activities from institutions of a religious nature to the others without that character” (250). Fourth, secularization can be considered as a transition “from ultimate concerns to proximate concerns” (250). Fifth, the secularization of a society is different from the secularization of a population. And last, “secularization can only be used unambiguously to refer to religion in a generic sense” (251). Here, Sommerville tries to make all the different usages of the secularization in a society clear, instead focusing on one or two aspects of it. Such an analysis can make social researchers who deal with secularization issue, analyzing any given society in any given time in accordance with those usages and their functions.

3. Evaluation of Secularization

In addition to the pioneering philosophical assertions, the scientific developments and technological achievements have a very important effects not only on the emergence of a new political economic era called capitalism, but also on the secularization process as requirement. Modern thoughts and sciences have limited the religious sphere in all the aspects of society from any single individual to the largest social institutions. In the modern sense, the decline of religion first occurred in the Western society. In other words, secularization emerged in the West owing to the historic process of modernization.

Therefore, to clearly understand the importance of secularization in the modernity, it is crucial to focus on the basic differences between modern and pre-modern societies, and capitalism having its own peculiar processes and agents. Different than that of the previous historical systems, capitalist accumulation system does not have only exchange processes as the previous historical systems usually had; it also has well-constructed and complementary production processes, distribution processes and finally (re)investment processes (Taşkesen, 2010: 2). As Wallerstein (1996) points out, all these chains of processes that can be called circuit of capital, require some peculiar agents in a peculiar market to make the capitalist accumulation system functions for the sake of the capitalism itself. Wallerstein classifies those agents as the capitalist investors who have the capital must be invested to accumulate more, lured or compelled workers who supply labor to produce goods and services, individual and/or institutional distributors who distribute goods and services into the market, and finally consumers who would like to buy the produced goods and services at a price that greater than the total cost (14-15).

In the pre-modernity, however, chain of processes was seldom completed (Wallerstein, 1996: 15), and possible agents who plays indispensable roles in completion of each process were insecure in performing their roles permanently; because in previous historical systems the authorities had the privileges to interfere in such commercial activities. In addition to insecurity in commercial activities, the process was usually aborted by the absence of one or more agents whose emergence and/or survive usually restrained by the system itself. By the modernity, on the other hand, those agents had become individuals who are “right bearer entities” against political and moral authority.

Table 1: Transition from pre-modern to the modern societies

Societies	Rights	Legal grounds	Social Positions	Inclusionary/Belonging Status
Pre-modern	objective - exclusive	social order- objective law ‘after the law’	fixed	total/overall-inclusive
Modern	subjectiv e- individua l	individual with subjective rights ‘before the law’	dynamic/ changeable	partial and multifunctional

Source: Taşkesen, 2021: 51.

What is meant by the modernity is basically creation of individual having rights in a totally new society. As Luhmann (2004) argues, because “dependence of the evolution of law on the parallel evolution of the political system” (262), “we today find structure in the legal system that differ greatly from those which are found in tribal societies. The pivotal difference can be defined as the personalization of legal matters” (269). This critical difference probably brought the “most important achievement of the evolution of law in modern times: the concept of subjective rights” (269). Basically, advent of individual spheres of action has accompanied the emergence of the modern society.

As seen in Table 1, there were no individual rights in pre-modernity, actually there were some hierarchical “pattern of specific freedoms, privileges and corresponding duties that one can only obtain on the ground of membership of a specific social group” (Verschraegen, 2006: 104); providing exclusive rights and freedoms based on royalty, nobility, monastery, city and so on. Legal ground was social order, and all the exclusive freedoms, privileges and duties came only “after the law” called objective law that strictly regulates hierarchically organized social interactions. One’s social position was fixed and belonging to any social group in which membership was usually obtained by born, was overall-inclusive that meant there was no way to live without. By the modernity, on the other hand, individuals became right bearer

entities; the defining of rights was gradually designed by referencing subject itself. As Luhmann points out “subjective rights are rights that have legal quality, because they are due to a subject and therefore need no further foundation” (as cited in Verschraegen, 2006: 104). The legal ground thus, has been changed from the social order to the individual who was entitled to the rights “before the law”. In this sense, “rights are no longer seen as an objective thing, but as attribute of the subject itself: the will-power (*potestas*) or the capacity (*facultas*) to act freely or to have the disposal over something” (Verschraegen, 2006: 104). Thus, in the modern society, as a right bearer entity “individual who is no longer defined by his or her social status, but who has the capacity to define himself or herself” (105).

According to Luhmann, rights, in this sense, are “not considered in ethical or juridical way, but seen as a social institution with a specific function” (104). He argues

since the seventeenth century, theories of the state have oriented themselves to the problem that the highest political authority is superior to all power in its territory and must be able to decide every conflict, yet must be restrained from arbitrary use. The result is the theory of the modern constitutional state, which functionalizes its individual parts, such as separation of powers, democratic representation, or protection of basic rights, in terms of this problem (Luhmann, 1995: 457-458).

As for the basic rights, Luhmann explains

the core concepts of fundamental rights law, such as ‘liberty’, ‘property’, ‘freedom of speech and expression’, ‘equality’ and the corresponding articles symbolise institutionalized expectations and mediate in their implementation in concrete situations. The institutionalization of fundamental rights is hence a factual event—that is something which even the inclusion of fundamental rights in the constitution should not make us forget—an event which function (and thus not only: intended normative meaning) has to be examined (Verschraegen, 2006: 103).

At this point, it can be asserted that the institutionalization of the fundamental rights has a crucial role in creation of the modern society, because

by institutionalizing fundamental freedoms and human rights, modern society protects its own structure against (ever present) tendencies towards regression or de-differentiation. In other words, fundamental rights ensure that the differentiation between different functional subsystems is maintained. An example of this, for

instance, is that when modern society institutionalizes religious freedom and freedom of conscience, it also prevents the continuous interference of religion and politics. At the same time, Luhmann argues, fundamental rights ensure the protection of individual spheres of action typical of modern society (Verschraegen, 2006: 103-104).

That is to say, by the modernity, because they are simply subjects all the “individuals are entitled to subjective rights” (Verschraegen, 2006: 104-105). That is to say, any individual as subject has his/her own individual spheres of action by which

transition towards functional differentiation, the position of the individual becomes fragile. As a consequence, fundamental freedoms and human rights institutionalise specific mechanisms to increase stability and protection of the individual. By formulating these rights as ‘natural’ and ‘fundamental’ rights, to which every citizen has an equal and unconditional claim, each citizen is endowed with entitlements that are morally prior and superior to society and the state (Verschraegen, 2006: 104).

By having and claiming rights ‘prior and superior to society and the state’, individual has located at the center of the social, juridical and economic system as well. Thus, by the modern world system since 16th century, all the individuals have acted in their own individual spheres of action with their own realms of interests. Furthermore, this new political economic system needs to set individuals free from the pre-modern social order’s chains; otherwise, neither modern individuals are created, nor modern world system could be effective as an accumulation system. Because accumulation process in this new system is provided by the chain of processes performed by the modern agents, creation and empowering of modern individuals having subjective rights has been indispensable for the sake of accumulation itself. Here is secularization has a critical role through which not only religious freedom together with freedom of conscience is provided, but also integrated interference of religion and politics is prevented in favor of individual and social system as well. Thus, by the modernity, divinely ordered pre-modernity has been disposed at all levels ranging from modern individuals’ interactions to the modern Westphalian state system.

It clearly seems that there is a strong relationship between secularization and modernization in which all the individuals have the spheres of political, juridical and economic actions. As a rule, the more modernization is adopted, the more

secularization is developed, because in a modern society institutionalization of subjective rights are provided for the sake of individual itself. Some scholars like Berger, on the other hand, argues that secularization theory indicates a complex relationship between secularization and modernity with some serious difficulties. One difficulty is that “there [was] the intriguing occurrence of secularity in situations long before the advent of modernity; the high culture of China may be the most important case -though some Chinese scholars would dispute this-” (Berger, 1990: 29). On the other hand, according to Berger, in some regions, modernity does not inevitably result in secularization; nevertheless, modernity brings about reaffirmation of religion. Berger (1990) gives an example of Islamic countries where the modernity strengthens the influence of religion. That is, in contrast to many scholars’ assumption, religion was reaffirmed in the Islamic world (Berger, 1990). Consequently, a paradoxical relation between religion and modernity exists in Islamic countries. Additionally, Berger talks about one difficulty that is “the scene of powerful movements of counter-secularization” occurring within the traditional realms of religion as ‘revitalization movements’” (Berger, 1990: 29). For example, American Indians reaffirmed their identity through the Ghost Dance in the 19th century (Berger, 1990).

Secularization theory, historically, has been seen strongest in the geographical region of Europe. The people of Europe are regarded as well-educated in the modern sense and highly consistent with the development of secularization and modernization as well. According to Berger (1999), a counter-movement has not been seen in this area yet. Berger (1999) stated that in England, secularization is well correlated with the development of modernity due to the emergence of the industrial revolution. Besides England, Italy and Spain, high levels of secularization can be seen in Scandinavia countries. However, it appears that in all non-European countries – such as East and Southeast Asia, Latin America, and the Muslim world – there is a moderate belief in religion. The education levels of the people who live in these areas don’t prevent the creation of a counter-movement. According to Berger (1990), furthermore, the religious character of the United States undermines secularization theory. This is one important difficulty of the secularization theory. He further explains that “no one will propose that the United States is not a modern society; indeed, in some respects, it may be more modern than any other. Yet, by all conventional criteria, it continues to be an intensely religious country” (Berger, 1990, 36). Therefore, he argues the United States is different from Europe in terms of secular and religious criteria. To him, it appears that the religious character of the United States brings about a difficulty for secularization theory.

While most of Berger’s opinions provide important contributions to the secularization theory, it seems such analyses deals with different societies by

focusing on results, not on causes. In fact, modernization cannot be clearly explained without analyzing individual subjective rights by which all the processes and agents in the modern world system perform their own functions. Institutionalization of the subjective rights not only brings the individual at the center of any social system, but it also institutionalizes secularization of the society by emphasizing 'religious freedom and freedom of conscience'. Secularization have been experienced differently in different regions, because capitalist political economic infrastructure, and of course prospect of the institutionalization of subjective rights differs from region/society to region/society since 16th century in the modern world system. . It can be asserted that the more institutionalized subjective rights are achieved, the more secular and/or modern society can be developed. Furthermore, at this point the crucial difference between belief and religion should be considered. While belief is totally a personal experience, 'as a system of beliefs' religion is "a social institution, a sociocultural system" (Morris, 2006: 1), and it is completely about social order. Therefore, "every religion contains a belief system—intellectual ideas, a credo or a set of doctrines. They may not be coherent or systematized in the eyes of modern, western thinkers but they exist... Belief is the means by which a religion is communicated to others. Through it religion is comprehensible to an observer" (Allen et. al., 2002: 5-6). Secularization, therefore, is not about belief, it is about religion, and it can be achieved only by institutionalization of the subjective rights in a modern society.

However, Berger (2008) argues that modernity doesn't lead to the secularization, it does lead to the pluralization. For Berger, the theory indicates that "pluralism is as important fact as secularity in this context and [it] becomes more comprehensible if one looks at both factors" (Berger, 1990: 37). Berger (1990) considers pluralism as "the co-existence with a measure of civic peace of different groups in one society" (37). According to Berger (1990), religious pluralism is different from other types of pluralism. Plurality does not simply imply a replacement for religious beliefs, values, and worldviews but acknowledges that there are other religious beliefs, values, and worldviews in existence as well. As a challenge to the secularization theory, this argument is supported by two additional and dynamic religious escalations: Islam and evangelical Protestantism (Berger, 2008). According to Berger (2008), Islamic movements have become predominant and prevalent in the Islamic world and in some other regions in the world. Similarly, Evangelical Protestantism has become very powerful in some countries such as East Asia, Latin and Central America. He argues both Evangelical Protestantism and Islamic movements could be considered as reactionary movements against modernism; however, both movements have different relationships with modernity.

Berger (2001), on the other hand, later confessed his misunderstanding regarding the relationship between pluralism and secularization in his work, titled *Reflections on the Sociology of Religion Today*. He highlighted his early works on the relationship between pluralism and modernity such that “modernity pluralizes the life worlds of individuals and consequently undermines all taken-for-granted certainties. This pluralization may or may not be secularizing, depending on other factors in a given situation” (Berger, 2001: 449). Pluralism stems from a natural outcome of secularization. Pluralism illustrates modern societies rather than secularization (Knudten, 1968). For that reason, Gordon (1981) by dividing pluralism into liberal and corporate ones, portrays six dimensions of pluralism as follows: (1) legal recognition and differential treatment, (2) individual meritocracy and equality of opportunity, (3) structural separation, (4) cultural differences, (5) area exclusivism, (6) institutional monolingualism (Gordon, 1981: 178-188). As it seen those dimensions are clearly emphasize the liberal democratic basis for a modern society.

Breault (1989), on the other hand, focuses on the religious pluralism and participation by referring their relationship in the context of urbanism. He claims that there is positive relationship among and between religious pluralism, urbanism, and participation. According to his findings, “religious pluralism appears to have differential effects on religious participation, depending on the religious makeup of the religious community along a liberal-to-conservative continuum” (Breault, 1989: 1048). Therefore, empirical evidence indicates that today there is no urban-rural difference in the rates about church adherents.

Hung (1995) claims that pluralism focuses on interfaith dialogue and brings tolerance rather than diversity and it doesn't carry exclusivism or inclusivism characteristics. In this sense, Hung (1995) states that pluralism indicates that “different religious traditions are all different but not to be isolated and all interconnected but not to be universalized” (137). Banchoff, on the other hand, underlines the other characteristic of pluralism. That is the interaction among religious groups in society and politics. Banchoff (2007) argues that pluralism covers collective consciousness, norms, values, and social practices all of which hold members of any modern society together.

In the context of the subjective rights, pluralization in a modern society function as a modern apparatus to make different collectivities live together. Because there is no any modern society usually called nation being homogeneous in the world, individuals' -or citizens'- collective consciousness is needed to be provided by pluralization for the sake of whole society itself. Pluralization here has dual character: individualistic and societal. Modern individuals as right bearer entities are, on one hand entitled to their own individual subjective rights by which they can claim their own selfness against not only “others” but also against whole society and/or state. At

societal level, on the other hand, in a modern society, individuals pursuing membership to any social group can act in partial and multifunctional belonging options according to their own interests/status. So, it can be argued that, in the modernity the roles of plurality and secularization are totally interrelated and complementary, because in the sense of modernity there is no difference between secular and spiritual values or beliefs providing that no one exerts his/her own values/beliefs on the others without their consent.

As for the modern classical views on religion and secularization, Marx basically focused on how religion functions in the society. He proclaimed that

the wretchedness of religion is at once an expression of and a protest against real wretchedness. Religion is the sigh of the oppressed creature, the heart of a heartless world and the soul of soulless conditions. It is the opium of the people. The abolition of religion as the illusory happiness of the people is a demand for their true happiness. The call to abandon illusions about their condition is the call to abandon a condition which requires illusions (Marx, 2009: 131).

According to Marx, religion is a real obstacle between man and the reality in which s/he lives. Because

religion is only the illusory sun about which man revolves so long as he does not revolve about himself...Thus, the critique of heaven is transformed into the critique of the earth, the critique of religion into the critique of law, the critique of theology into the critique of politics (Marx, 2009: 132).

Here, Marx clearly saw the critique of religion and theology as a real emancipation from the political and moral authorities of pre-modernity. Thus, by the modernity

the laws of the state, like the state itself, derive from the nature of man. They are in essence (or idea), and thus ought be in fact (actuality), nothing less than the internal laws of man's rational, social activity expressed in formal codification. The secular world is filled with natural, legal, ethical content to which the legislator is subject (O'Malley, 2009: XXIV).

Durkheim also believed that religion is one of the main factors in all aspects of social life. It is basically “a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and surrounded by prohibitions—beliefs and practices that unite its adherents in a single moral community called a Church”

(Durkheim, 2001: 46). He perceived religion as reflection of society, not a representation of an external supernatural reality. To him “the scientific study of religion, if successful, would destroy religion itself” (Jones, 2002: 45). Durkheim utilized some sociological methods to confirm his statement. To better be able to do that confirmation, he investigated the tribal religions of the Australian native people. For Durkheim, in contrast to tribal ones, there was a decline in the role of religious institutions in industrialized societies.

Like Durkheim, Weber also suggested that, as a natural result of rationalization, the “secularization [would be] strongest among the most highly educated and most scientific minded individuals” (Norris & Inglehart, 2004: 20). The following comment of Berger also supported that “Weber believed that what he called “rationalization”—the increasing dominance of a scientific mindset—would destroy the ‘magical garden’ of pre-modern worldviews” (Berger, 2008: 23). Weber interpreted this as ‘the disenchantment of the world’. Rationality, therefore, has brought humanity at the threshold of a totally new era. Weber “believed that it was one of the most important transformations that the world had ever seen” (Adair-Toteff, 2015: 151). In Weber’s sociological writings the concept of *Beruf*-calling or vocation- has an exclusive value to understand his views on modernity and modern social actors. As a key concept for not understanding just Weber’s ideas but his sociology, *Beruf* for Weber

is a fundamental tool for understanding the circumstance and activities of modern social actors. Here *Beruf* characterizes an aspect of social being in which an orientation to particular tasks and goals is formative not only of an individual career, but, in providing such direction, also of the process of self-formation, the making of one’s self or, as Weber has it, the creation of ‘personality’ (Barbalet, 2008: 48-49).

By his prominent concept of *Beruf*, Weber refers “not to rationality but ‘the process of the “rationalization” of action” (Barbalet, 2008: 49) by which individuals construct their own inclusionary/belonging status as a process of self-formation.

4. Conclusion

This paper reviewed secularization and the modernization of societies by starting with the ideas of Marx, Durkheim, and Weber on religion and its role in society. By focusing on the decisive function(s) of religion, Marx proclaimed that religion, as an opium, makes man to be estranged from the reality, so from himself for the sake of political and moral authorities through which historical social inequality is sustained.

For that reason, the real conditions only provided by the critique of religion and theology. As a critique of religion and theology, modernity has provided the opportunity to construct a secular world 'filled with natural, legal, ethical content to which the legislator is subject'.

Durkheim saw the religion 'as a system of beliefs' and social practices by which singularity of the community is enabled. According to him, modern societies have the capacity to overcome the hegemony of religion through science. In Durkheimian perspective, the more people rationalize in the direction of modern science, the more societies secularize and rationalize; then emancipation from the 'external supernatural realities' is enabled.

Like Durkheim, Weber pointed at the importance of science and rationality to destroy the "magical" pre-modern worldviews. To him, there was 'the most important transformation' and in this radical change the construction of modernity and the construction of individual could not be thought separately. By asserting the concept of *Beruf*, Weber saw the modernity as the 'process of self-formation' and 'the creation of personality' for individuals.

To conclude, it is clearly seen that all the three thinkers saw a direct relation between secularization and modernization. As modernization with scientific developments has improved, society has become secular through enhancing of rationality. Rationality has been enforced by making the individuals having capacity to form their own lives against political and moral authorities. As Luhmann points out, emergence of the subjective rights was the most important development for the transition from pre-modern to the modern societies. By the subjective rights not only individual had become right bearer entity, but legal ground had been changed drastically in favor of individual who was entitled to changeable social positions in the partial and multifunctional status options in accordance with his/her own will. Because the legal ground has been changed from the social order of pre-modernity to the individuality of the modernity in accordance with the new accumulation system with peculiar processes and secular agents in the modern world system, not only rationalization but also secularization was inevitable to reconstruct modern society socially, juridically and politically at all levels including individuals, social systems and the modern states.

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Chapter 28

Relationships Between Productive Oak Forests and Pumice in Southeastern Central Anatolia, Turkey

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1. Introduction

Turkey is the meeting place of three phyto-geographical regions: Euro-Siberian, Mediterranean and Irano-Turanian (Davis, 1965-1985; Davis et al., 1988). The study area is around the Melendiz and Keçiboyduran Volcanic Mountains that rise abruptly along the northern part of Nigde province. This area is a part of a region commonly known as Cappadocia. The relief map (Fig. 1) clearly displays the very high topographic relief of the Mt. Melendiz and Mt. Keçiboyduran volcanic complexes, which are easily distinguished from the low-lying background. Vegetation studies considering soil properties, particularly studies of pure oak trees in areas where the main rock contains pumice, are very rare. Most studies are of areas that contain other rock types, such as granite, limestone and gypsum main rocks. The first detailed study of gypsum flora in Turkey was reported by Akpulat and Çelik (2005) from the Sivas province, which is located in the eastern part of Cappadocia, in Central Anatolia. Solon et al (2007) studied the relationship between vegetation and topographical-soil gradients. According to this study, plant cover is an easily discernible, recognizable and labile component of the natural environment, which reacts to changes in other components. One of the more important components controlling vegetation cover is the soil, and both vegetation and soil are influenced by topography, among other things.

The ecological relationship between plant, climate, main rock and soil were explained by Ocakverdi and Oflas (1999) for the Upper Göksu Catchment area (Hadım-Konya). Dry forest areas of the Karadağ and Karacadağ volcanic mountains, located in the southern part of Central Anatolia, were described by Avcı (2004). In addition, Avcı (1996) studied the floristic region of Turkey and used a geographical approach for Anatolian Diagonal.

In this study, the author stated that the floristic richness of Turkey is related to different geographical conditions in different regions, which determine vegetation formation. The presence of productive oak forests is closely related to ignimbrite main rock containing various elements and soil. Soil is defined as that element of the natural environment whose genesis and properties are functions of the climatic, biotic, geomorphological, lithological, aquatic and anthropogenic conditioning, being affected at any given time in given space (Solon et al., 2007). This is manifested in the heterogeneity and diversity of soil cover (Degorski, 2003). Topography is among the factors that shape both vegetation and soil (Florinsky and Kuryakova, 1996). The physical and chemical properties of the soil, particularly in the rooting zone (which for most vascular plants is to a depth of 20cm or so), play a very important role in shaping vegetation (Bednarek et al., 2005). An assessment of main rock-soil-

vegetation relationships is presented in this paper. It is also the first detailed study of oak forests on pumice in Turkey. The main aim of the work is to determine the distribution of oak forests depending on the effect of main rock with pumice around Mts. Keçi Boyduran and Melendiz.

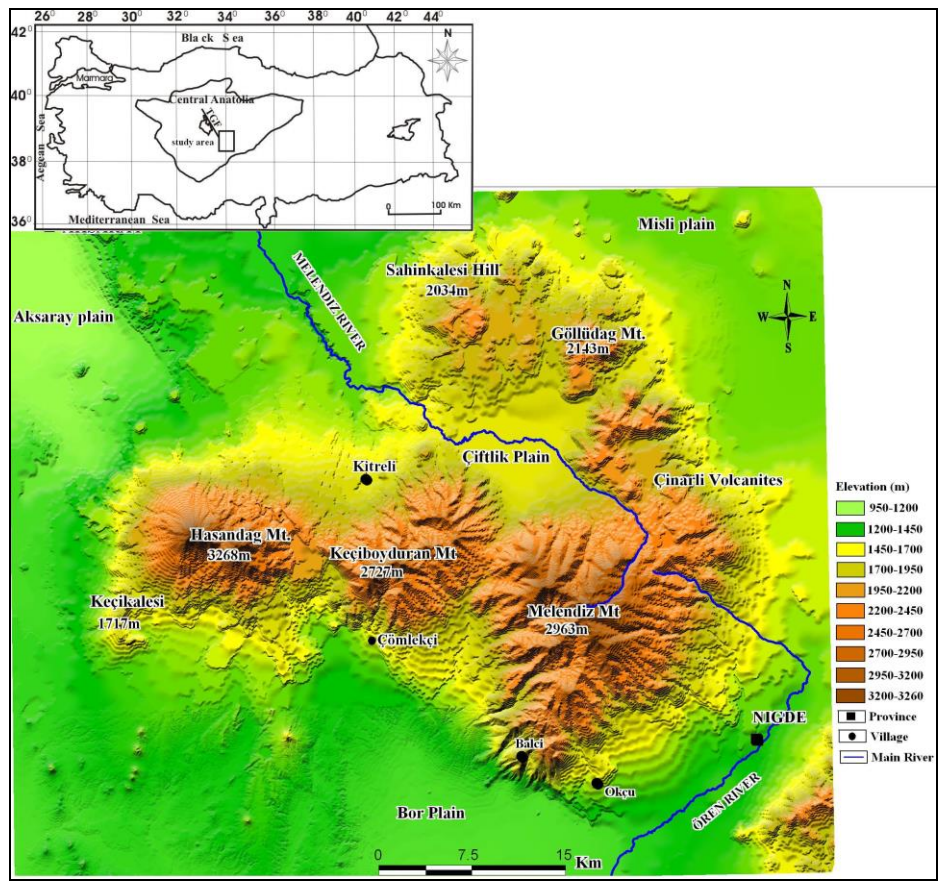


Fig. 1 location and topography map of study area.

2. Geographic and Geological Setting

The Central Anatolia Volcanic Province (CAVP) witnessed episodes of monogenetic activity, stratovolcano growth and emplacement of several large-volume ignimbrite sheets (Le Pennec et al., 2005), who stressed that the Nevşehir Plateau, located in central part of the CAVP, defines a large tabular structure between the tectonic depressions of the Tuz Lake to the west and Sultansazlığı to the east and between the Kırşehir massive to the north and Taurus mountain belt to the south. Andesite and basalts are in general only

exposed in the walls or deep intersections in the Melendiz Mt and Keçiboyduran Mt (Beekman, 1966) (Fig. 2).

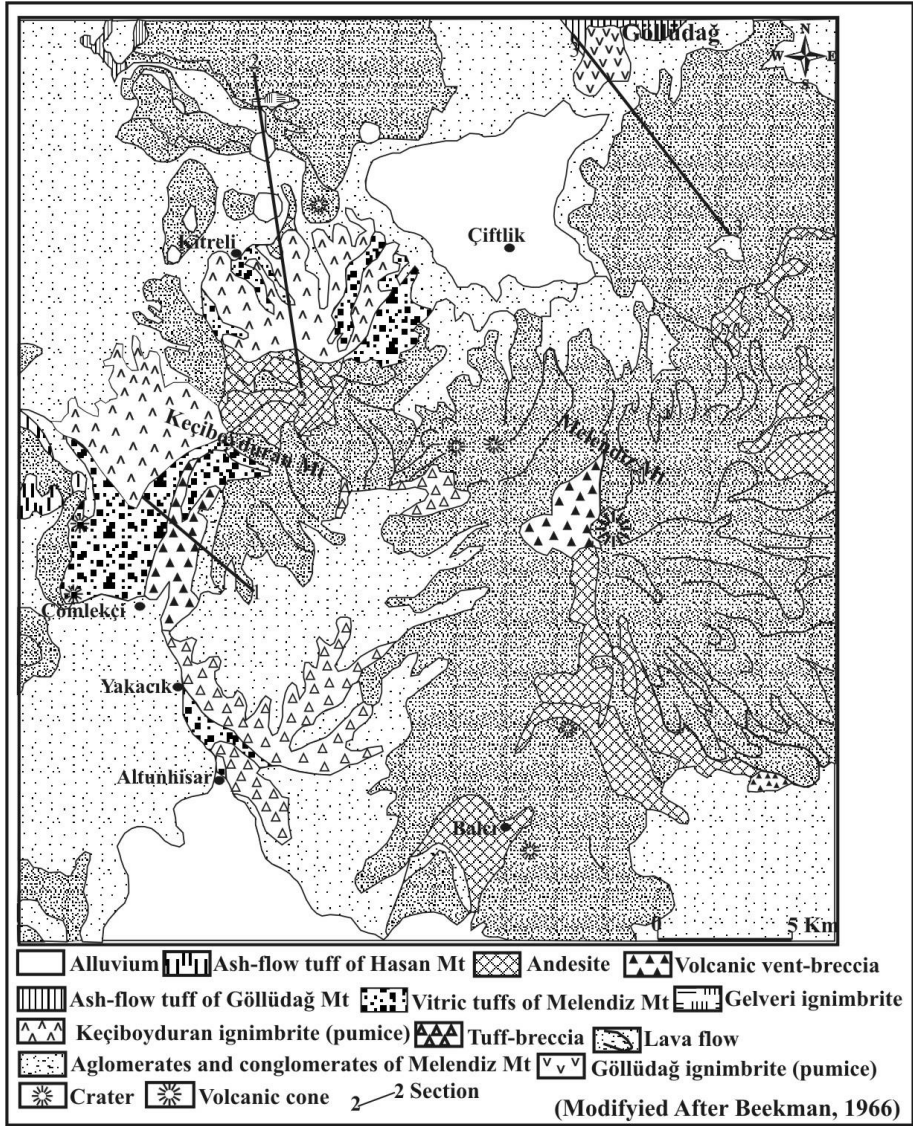


Fig. 2. Geology map of study area.

The drainage system of these streams intersects the flat tuff region and exposes the horizontal bedded tuffites the tuffs and ignimbrite-sheets. During the Middle Miocene-Early Pliocene was the volcanic phase of study area (Toprak and Göncüoğlu, 1993). Present day volcanic lands compose of basalts, andesites, volcanic breccias and tuff breccias including angular pumice. They

are all associated with basaltic lava flows and are Late Quaternary in age (Ercan et al, 1992). Small fragments of pumice and lava pieces were observed among Altunhisar, Yakacık, Ulukışla and Kitreli settlements and Mt. Göllüdağ. (Beekman, 1966). Pumice is volcanic rock that is formed from the lightest, most aerated lava of a volcano. It has various elements such as Ca, Mg, K and Fe, an average porosity of 90% and a common product of explosive eruptions (ignimbrite-forming). Natural vegetation reflects the range physical environments to have dominant throughout the Central Anatolia. Especially climate, main rock and human impact are the factors that determine the distribution of vegetation formations in study area. Hydrophytic and hydrophyll vegetation such as *Salix alba* and *Populus sp* are seen in bottom land of stream. Resist dryness vegetation such as dry forest and steppe are seen in plateau areas and mountainous areas. Ecological properties of natural vegetation depend on climate, main rock, soil and geographic properties such as altitude, exposure. Present distribution of vegetation formations are also determined by anthropogenic impacts.

3. Material and Methods

The most of the field trips were carried out during the summer months of June-July 2019, 2020 and 2021. Many different ecological areas were determined around mountainous areas during these field trips. Soil samples were taken from various slopes in the study area and chemical analyses of soils and pumice were carried out at the Soil Laboratories of Urban Services in Niğde. In addition, the data related to soil type around Mts. Keçiboyduran and Melendiz were taken from 'Niğde Province Land Existence' prepared by the General Directorate of Rural Services. The climate data of the study area were obtained from the Niğde meteorological station, and reflect 56 years of temperature and rainfall. The climate data were assessed and climate type was determined according to the Thornthwaite water balance method and the Emberger method.

4. Results and Discussion

4.1 Climate-vegetation relationships

Generally, the arid and semi-arid climate conditions prevail in the study area, as the Bolkar Mountains in the south and Aladag Mountain in the southeast prevent the Mediterranean climate from penetrating Central Anatolia. The mean yearly temperature is about 11°C in the Niğde and 12°C in Aksaray. The mean July temperature is 22.3°C in Niğde and 23.7°C in Aksaray (Fig. 3a, b). The mean January temperature is -0.5°C in Niğde and 0.4°C in Aksaray. However,

summer temperatures decrease to 3-4°C in the mountainous areas. Also, temperature of four months is below 0°C in Niğde. The same value is between 0 °C and 5°C in Aksaray. According to Atalay (1976), using +8°C as the threshold temperature figure, the vegetation growth period in the study area begins on April 30th and the end of growing season is on October 10th. Thus, the vegetation growth period is 170 days. In addition, the end and beginning of the growing season changes depending on exposure and elevation. The growing season is shorter in the mountainous areas than in the valley basin. The mean yearly rainfall is 343.8 mm in Niğde and about 350mm in Aksaray. As a result of low precipitation, the study area is one of the most arid regions of Turkey. According to Emberger method, Niğde and Aksaray have semi arid Mediterranean bio-climate in terms of precipitation. The rainy season begins around the end of October (25.4 mm), increases between December and May (41.4-52.5 mm). The monthly maximum rainfall is in the spring (37.9 %) and winter (32.6%). This proportion is lowest in summer (10%). However, rainfall is not as low as in the Mediterranean region. When the water balance, prepared according to the Thornthwaite method (Fig. 4), is investigated, rainfall is low between June and November, and evaporation figures are high in this period. Actual evapotranspiration is equal to rainfall in these months. Rainfall is lower than potential evapotranspiration and the absence of accumulated water in soil. Water starts to accumulate from November, so that that rainfall becomes greater than potential evaporation. Accumulated water in soil begins to be exhausted due to evaporation in May, when potential evapotranspiration becomes higher than rainfall. The exhaustion of accumulated water in the soil continues during June, and thus water deficit and drought affect the study area. Rainfall increases starting in November and is higher than evapotranspiration. Thus, water begins to accumulate in the soil. The pattern of vegetative growth is strongly influenced by temperature and precipitation. The north, northwest and southwest facing slopes of Mt. Melendiz and Mt. Keçiboyduran receive more rainfall than other parts of the study area because of the humid air masses coming from the Mediterranean region.

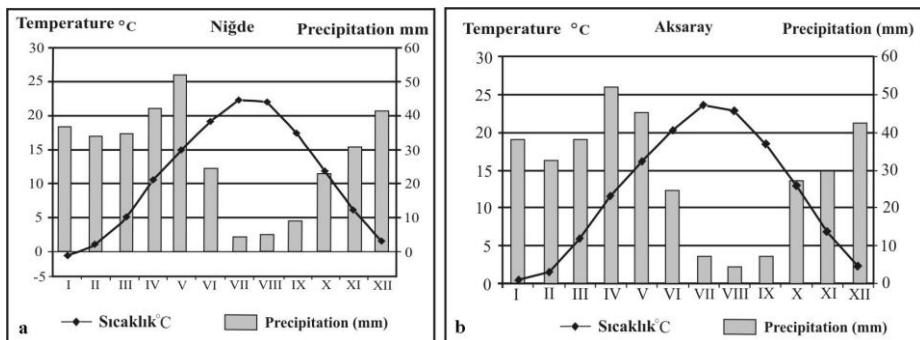


Fig. 3. a) the mean monthly temperatures and precipitation, b) the mean monthly minimum and maximum temperature of Niğde.

4.2 Soils, main rocks and vegetation relationships

Soils in the study area are extremely thin and immature, with A, (B), C horizons due to active erosion processes. pH values of these soils, which are mildly alkaline, vary from 7.0- 7.2 (Table 1).

Table 1. Chemical properties of soils in study area.

Location	Main rock	Altitude (m)	Clay (%)	CaCO ₃ (%)	Organic matter (%)	pH	Potassium	Phosphate
Okçu	agglomerates	1500	71	1.87	3.57	6.70	158.00	10.78
Tepeköy	basalt	1800	63	2.34	1.57	7.20	93.00	2.36
Fesleğen	basalt	1500	56	17.94	1.73	7.20	93.00	3.01
Fertek	aglomera- konglomera	1450	69	0.15	0.97	6.90	188.00	1.07
Balcı	andesite	1600	51	7.17	2.54	7.40	155.00	6.89
SW slope of Keçiboyduran Mt	pumice	1600	61	4.68	2.00	7.00	182.00	4.30
NW slope of Kızıl Hill	pumice	1620	46	1.56	1.84	7.20	97.00	2.36

Although the soil contains low levels of organic matter and lime, oak forests are well-developed in these areas. Oaks, the roots of which can grow deep, develop well on colluvial soils that have air and water circulation. For example, oaks occurring on colluvial soil are more developed than trees occurring on other soil types (Fig. 5a). Colluvial soils having developed on ignimbrite main rock create suitable ecological conditions for oak forest. For example, these soils have a high water retention capacity in the study area. According to chemical analyses of pumice, two types of pumice are proved in the study area. The first one is white pumice; and the second is dark basic pumice. The white pumice contains Al, Fe, Mn, Ca and K. Its water retention capacity is high and is 66%. Basic pumice contains Al, Fe, Ti, Mn, Ca and Mg and has water retention capacity of 45%. It stores heat and water (as steam) in its pores during daytime because of its dark colour. When temperature decreases, steam found in pores is condensed during night and the plant can give this water. Thus, pumice main rock provides suitable

conditions for plant growth. In addition, above elements accelerate the development of the plants. Overlying ignimbrites with pumice create suitable habitats for vegetation. The rocks with pumice are good isolators and have water or moisture retention capacity. Therefore, the plants have good root growth. The pumice-containing elements (calcium, potassium, magnesium and ferro) provide nutrients for plants in the study area. These elements dissolve and contribute to the growth of plants. Dark colored pumice keeps water and heat as steam in its pore spaces. When heat decreases at night, water in pore spaces can be taken in as steam by the plant. Therefore, the plant is tolerant to dryness in the arid season. Additionally, oak roots and trunk on ignimbrite with pumice become more developed than oak trees on other rocks, such as andesite and basalt. While pumice has many pores, both large and small, andesite and basalt have cracks where water is easily exposed to evaporation (Fig. 5b). While plants occurring on the andesite run dry during the summer drought, plants occurring on the pumice stay healthy during this time. For this reason, main rock with pumice creates suitable ecological conditions for plants. Because of the pumice, there is a dense plant cover on slopes developed with ignimbrites. Oak communities are denser in areas with pumice than in areas without pumice. These are found on southwest facing slopes of Mt. Keçiboyduran, namely between Kitreli and Çömlekçi settlements on southwest facing slopes of Mt. Göllüdağ, namely Çardak, Bozköy and Azatlı settlements. Dry forest is seen in small communities in the other parts of the study area. Özhan et al. (2008) reported significant increasing in available water capacity, by adding of grounded pumice material to soils. According to Özhan et al. (2008), when this material was added into the soil with a proportion of 1/2 (by weight), available water content for loamy sand, sandy loam, loam, and clay textural classes significantly increased. These results are very important for area situated within semiarid regions and much more water would be retained in the soil and plant could use more available water (Özhan et al., 2008).

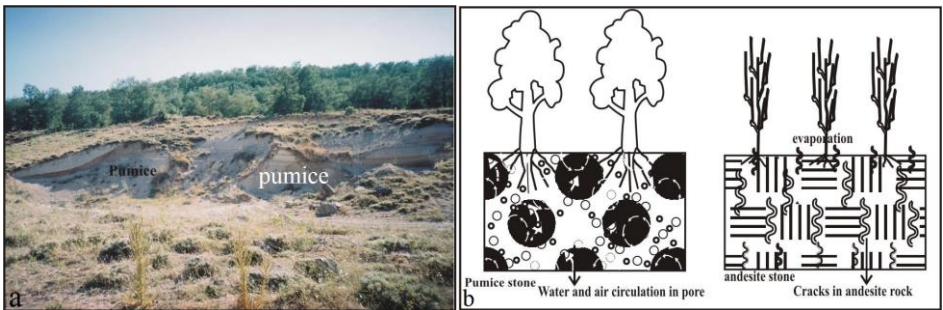


Fig. 5. a) Good developed oak forest on shallow colluvial soils found on ignimbrite main rock (pumice) around Kitreli, b) relationships between main rock and vegetation.

4.3 Oak forests

Two types of oak forests are seen in the study area. The first type is productive stands of oak forests; the second is extensively degraded remains of these forests on the south slopes.

Wide oak forests, composed of mainly *Quercus pubescens*, *Quercus trojana*, *Quercus infectoria*, are spread around Kitreli, Bozköy, Divarlı, Çınarlı and Azatlı settlements on the southwest and northwest slopes of Keçiboyduran Mt (Fig. 6). These forests occur between 1400 and 1810m, and mountain steppes are found above this altitude. The mixed forest communities are found on the southerly slopes of Mt Keçiboyduran. This forest is composed of *Quercus pubescens*, *Pyrus elaeagrifolia*, and *Prunus insititia*.

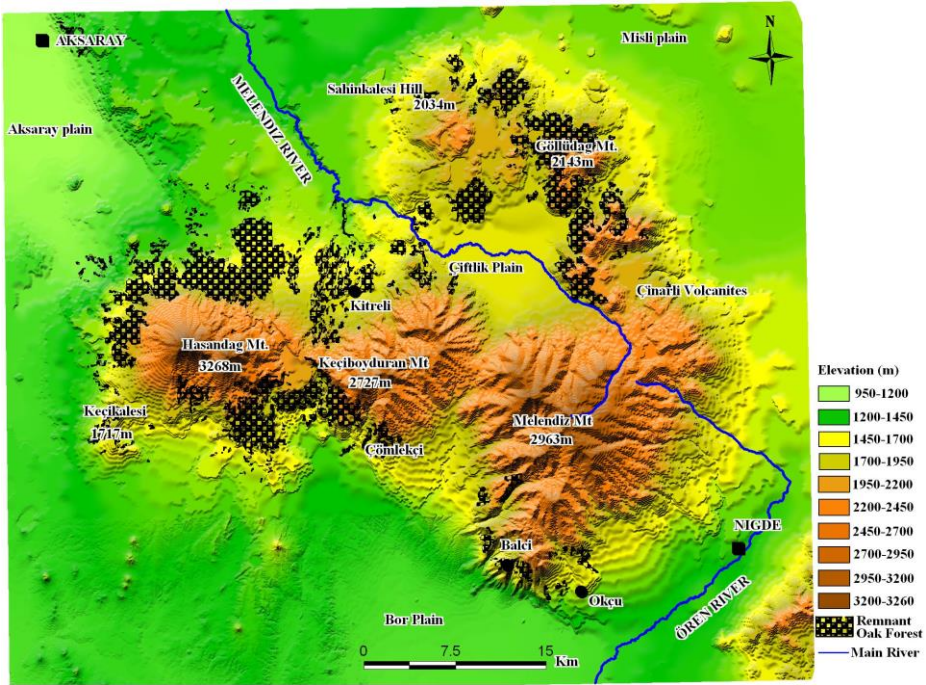


Fig. 6. Distribution of remnant oak forest

The *Quercus pubescens* includes pure communities to the north, northwest and west of the Kızılkaya Hill and Gölüdağ (Fig. 7). These communities are found between 1400 and 1810m on the southwest and northern slopes of the Keçiboyduran Mountain, namely among the Yakacık, Kitreli and Çömlekçi settlements. *Quercus trojana* and *Quercus infectoria* communities are seen at 1450-1800m elevation on the southwest slopes between Yakacık and Çömlekçi settlements and Sultanpınarı valley. Some of *Quercus pubescens*, *Pirus*

eleagrifolia and *Prunus insititia* look like bush or short woody plants due to intensive grazing. Human impacts and grazing are so intensive that some of these plants cannot grow taller than 100 cm. In addition, domestic pear varieties are used as rootstock for cultivated fruit varieties; i.e., they are grafted onto *Pyrus (Pirus) elaeagrifolia*.

During this study, good and productive oak forests were found in the southwest and the north of the study area. The reason for this is assumed to be pumice habitats. The main advantage of pumice for the oak species may be moisture retained during the summer drought. Pumice is used as a soil amendment for potting soils to improve drainage and contribute to moisture retention in horticulture. When pumice is used in agriculture, water consumption is reduced, on average by at least 50%, maintenance is reduced, and vegetation is stronger and healthier. For this reason, pumice is used to making organic soil in various agriculture sectors. Good and productive *Quercus pubescens*-*Pyrus elaeagrifolia* associations are found on the southwest, west, northwest and north slopes of Mt. Keçiboyduran (Fig. 8a).

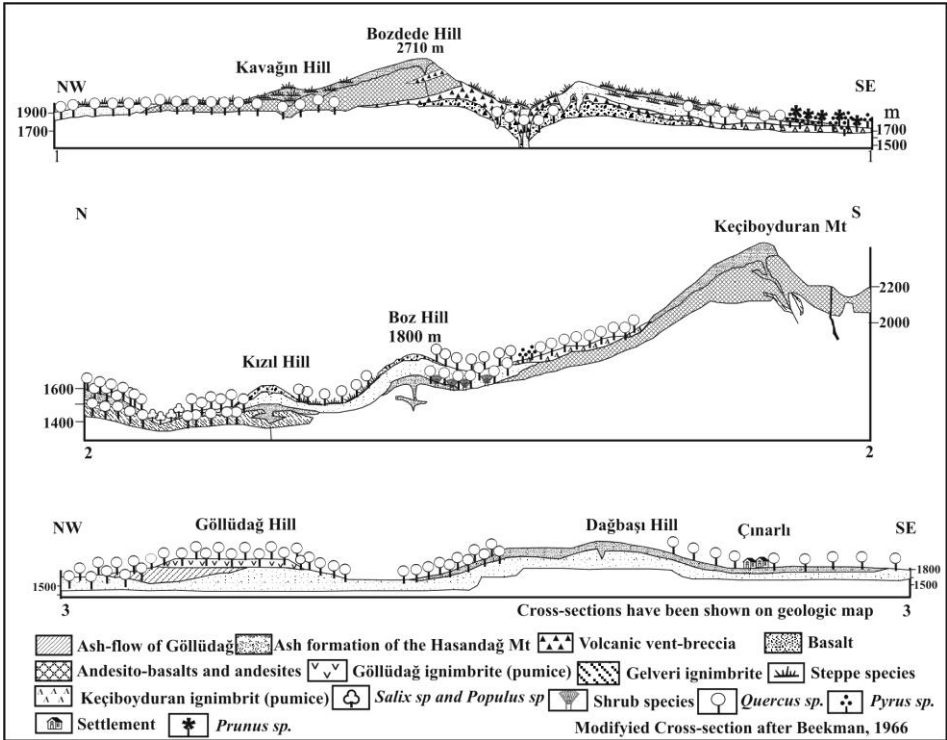


Fig. 7. Sections showing distribution of vegetation as related to main rock, altitude and exposure.

These slopes have 350-400mm annual precipitation. *Quercus pubescens* forests seen on andesite, basalt, ophiolite and limestone main rock are undeveloped as a result of overgrazing and cutting in Northwest Anatolia, and these forests are in 1 to 2m height small stands (Akman, 1995). In addition, tree height on andesite main rock is not more 5-6m in Soguksu National Park (Ankara, Turkey) (Akman and Ketenoglu, 1982; Adigüzel and Vural, 1995). In spite of overgrazing and cutting the trees for firewood, the remnants of *Quercus pubescens* forests around the Mt. Keçiboyduran and Göllüdağ Mountains are good and productive, and the height of each oak is 15-17m (Fig. 8b). These areas have good conditions because of pumice, which provides Ca, Mg, K and Fe and the climate, which is more humid than in other parts of the study area. These elements accelerate the development of the plant. Pumice has a good capillarity, which retains water. For this reason, pumice is used in agricultural sectors. *Quercus pubescens* associations are small mixed stands on the south and southeast slopes, which are composed of andesite and basalt main rock. Steppe species are dominant on these slopes and rocky areas. Around oak forests, the areas are covered with steppe species. The virtual absence of oaks on the rock formations indicates that this kind of habitat is either unsuitable for oak growth, or that oaks at such sites are granted only a short life, which could be caused by browsing animals or exploitation by man (Woldring and Cappers, 2001). Most of the oak areas have been converted into steppe areas and vineyards. However steppe species are either sparsely found or not found in areas with pumice main rock. Thus, pumice probably prevents development of herb vegetation. In this study, it has been shown that distribution of oak forest was significantly affected by soil moisture, erosion and soil chemical properties. The recycling processes in these forest ecosystems determine the spatial variation of soil nutrients. Thus, soils play a major role in the biogeochemistry of forest ecosystems (Martinez and Acosta, 2007). The main environmental factors determining soil chemical properties and vegetation patterns were soil moisture and elevation (Solon et al, 2007). The remnant oak woodlands occur in high areas, rich in organic matter, while well-developed oak trees occur on colluvial soils, which are poor in organic matter. Trees with deep roots develop well on these colluvial soils that have good water circulation (Atalay, 2006). In the study area, soil thickness is markedly low and soil pH is generally high. This situation slows down growth on andesite areas. Growth of oak trees is better in moist northern slopes and colluvial soils than in other parts of the study area.



Fig. 8. a) The mixed forests including *Quercus* sp., *Pirus* sp. and *Prunus* sp. occur between Kitreli and Çömlekçi settlements which are located in northwest and southwest slope of the Mt. Keçiboyduran, b) *Quercus pubescens* forests around the Mt. Göllüdağ.

5. Conclusions

There are degraded forests of *Quercus* sp. and wild fruit trees in the southern slopes with andesite and basalt main rock, and dense forest areas in the northern and southwestern slopes of mountainous areas. Wild fruit trees are present in the *Quercus pubescens* association found at 1400-1800m.

The south facing slopes of the mountainous part of the area receive low precipitation, because Mt. Melendiz (2936m) prevents humid air masses from entering from the north. For this reason, there is little plant cover, especially between Okçu and Hançerli settlements. However, dense plant cover is seen on the southwest and the north facing slopes of the Keçiboyduran and Göllüdağ Mountains. That is, while steppe species and xerophytic shrubs are seen on south facing slopes of Mts Melendiz and Keçiboyduran, oak communities are seen on the north facing slopes of these mountains. In addition, north slopes consist of ignimbrite with pumice, which is important for soil formation and plant growth due to its porous structure. In short, north slopes create suitable habitats for plant growth. The steppe zone lies between 1300-1400m on the south facing slopes. Degraded forest zones, consisting of oak trees, *Populus* sp. *Pyrus elaeagrifolia* and shrubs, generally occur between 1300-1810m on the north facing slopes. The sub-alpine zone is between 1810-2000m and the alpine zone reaches as high as 2000m. Steppe species are common on the south facing steep slopes, which are exposed to erosion, of Mt. Melendiz. While mixed forests, including *Quercus pubescens*, *Quercus infectoria*, *Quercus trojana* and wild fruit trees such as *Pyrus elaeagrifolia*, *Prunus insititia*, occur on andesite and basalt main rock, the single species (pure *Quercus pubescens* cluster) occur on pumice main rock. This provides evidence that vegetation on pumice main rock is poor in terms of species richness. Oak forests north of Mt. Göllüdağ are also exploited by human activities such as overgrazing, cutting trees for firewood

and grafting. Nevertheless, dense oak forests are seen in this area. This situation is probably related to the pumice, which provides good ecological conditions for plants, and to the humid climate. Additionally, the north, northwest and southwest slopes cover a vast area and create microhabitats for plant formations. On these slopes, air and water circulation in pumice is high, causing water circulation in the ground and providing oak trees with enough water. *Quercus pubescens* that have deep roots are thus able to grow on these slopes. These species are very common in the north and southwest. Colluvial soils are generally sandy and shallow on pumice main rock. Oaks, which have deep roots, develop well on Colluvial soils, which have air and water circulation. For example, oaks occurring on Colluvial soil are more developed than trees occurring on other soil types. Indeed, *Quercus* sp. is more common in colluvial soils that occur on pumice main rock. Distribution and growth of oaks are notably dependent upon the main rock and soil in the study area.

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Chapter 29

Consumer Behaviour Towards Financial Products and Services: A Meta-Analysis

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Introduction

The financial services industry is constantly changing. These changes although can be attributed to series of factors such as changing regulations, the introduction of modern technology, new competitors, the increasingly complicated nature of consumers in the industry greatly contributes to the overall changes in the industry the most. Consumers' tastes and preferences nowadays flows with the direction of the wind, and they are equally not ready to settle for less or compromise, thereby making it extremely difficult for financial institutions to really boast of loyal consumers. In addition, the traditional boundaries that used to exist among banks, insurance companies, and credit unions is almost non-existent due to the dynamics in the financial services industry. The accumulated effect of these issues is a constantly rising competition.

Surviving in such an industry therefore requires creativity and innovation especially in the development and delivery of new and existing products and services. A firm's products and services are only regarded to be successful if they are well tailored to the needs, wants, and desires of both actual and potential consumers. This is however achieved only by firms that stay close enough with the consumers to fully appreciate all the components of a product that really enhance consumer satisfaction. In a scientific study, Easingwood and Storey (1991) identified the factors that guarantee success for financial products and services as follows: overall product quality, communication strategy, product fit and internal marketing, technology, intermediary support, market research, differentiated product, low price, and direct mail targeting.

It is imperative to emphasise that in every industry and the financial service industry in particular, consumers exhibit a rather unique behaviour towards organisations' market offerings. Whereas some consumers are naturally sensitive to price fluctuations, others tend to focus on product or service quality, service delivery, and product availability. This especially makes it extremely impossible to effectively serve consumers based on a guesswork. It is for this reason, therefore, that the studies of consumer behaviour and decision making continuous to enjoy a great deal of attention from both marketing practitioners and researchers. The study of the processes involved in an individual's or group's selection, purchase, use, or disposal of products, services, ideas, or experiences to fulfil their desires and preferences is known as consumer behaviour (Solomon et al., 2006).

The concept of consumer behaviour, therefore, facilitates our understanding of all the factors that can influence the behaviour, attitudes, and purchase decisions of both potential and actual customers. Starting from demographic

factors such as age, gender, and education level to psychological, social, cultural, and economic factors, consumers' choice of a particular product or service and their post-purchase behaviour are usually largely determined by the above factors. A better understanding of these factors and their influence on consumers would greatly improve design, quality, marketing strategies, and consumer satisfaction levels.

It should be noted, however, that despite the dearth of literature on consumer financial behaviour (Harrison, 2003), the few studies that are accessible are characterised by inconsistent findings, making it difficult to rely on them for policy and strategic decision-making purposes. Against this background, this paper attempts to synthesise, through the meta-analysis approach, the results of previous studies since the year 2000 to provide clarity on the effect of consumer behaviour on consumers' intentions to acquire financial products and services.

2.0 Literature Review

2.1 The Concept of Consumer Behaviour

Consumer understanding and behaviour are fundamental to marketing research and practice. As long as companies exist to meet the needs of their customers, it is essential that they thoroughly understand their customers and their reactions to their market offerings. Such understanding puts companies in a better position to create, communicate, deliver, and exchange value that satisfies consumer needs. In the case of the financial services industry, with its fundamental characteristics of intangibility and inseparability, consumer difficulties are exacerbated, particularly with respect to products and services (Harrison, 2003). In addition, most financial products, such as life insurance, are purchased only once, so the fear of making a wrong decision may influence consumers' attitudes toward these products. The increasing choice (of financial products) available to consumers due to the substantial number of financial institutions in the system contributes significantly to the challenges consumers face.

A review of the academic literature shows that not much has been done to explain the consumer decision-making process, particularly in the context of financial services. Even among the empirical work that does exist, it is not difficult to see that most focus on tangible goods rather than services. The literature on general consumer buying behaviour is based on models that assume individuals go through a discrete but interrelated five-stage decision-making process: problem identification, information search, evaluation of alternatives, purchase decisions, and post-purchase decisions. Considering that these models

were not originally developed for services, particularly financial services, their effectiveness remains a serious concern for researchers in this area.

Consumers' behaviour toward financial products differs mainly depending on their characteristics. In terms of their demographic characteristics, Javalgi and Dion (1999), in an attempt to examine the impact of consumers' life cycle stages on their choice of financial services, found that young and single individuals place high value on the financial service provider's proximity, overall service quality, and prompt service. Newly married couples, on the other hand, value reputation, location, meaningful financial advice, low interest rates on loans, etc.

Customers may adopt innovative technologies for a variety of reasons, according to Meuter and Bitner (1998), including time and cost savings, better delivery service control, reduced waiting times, and perceived increased customization, flexibility, improved bank reputation, and reaching new populations. Other contributing aspects mentioned are location convenience and pleasure and enjoyment (Curran & Meuter, 2005, Sathye, 1999, Brogdon, 1999).

Financially literate consumers, according to the UK Financial Services Authority (FSA, 2005), are able to make solid financial management decisions, successfully manage their money, credit, and debt, and determine the need for insurance and security. Consumers' financial literacy includes their knowledge, comprehension, skills, motivation, and confidence (Zakaria & Sabri, 2013).

2.2 Research Hypotheses

The following hypotheses were investigated in light of the study goals. Figure 1 depicts the research framework.

H₁: Consumer behaviour influences customers' intentions to acquire financial products/services.

H₂: The relationship between consumer behaviour and financial products is influenced by some moderating factors.

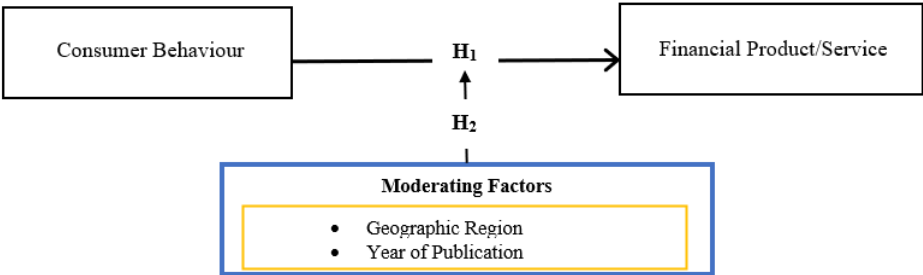


Figure 1: Conceptual framework

3.0 Research Methodology

3.1 Research Design

The research design chosen for this study was the meta-analysis approach to reach new conclusions based on previous research. Meta-analysis is a technique that objectively and quantitatively summarizes prior research on a topic in order to estimate the amount of influence of each study (Burns & Burns 2008). Meta-analysis has been used as a statistical technique to identify, summarise, and evaluate the results of studies on consumer financial behaviour.

3.2 Sample and Sampling Procedure

In any meta-analytic study, the sample refers to the number of individual studies analysed. Thus, for this study, the sample was formed through a 3-stage literature review. The first stage entails conducting a thorough literature search in the field's most popular databases, such as EBSCOhost, Emerald Insight, Google Scholar, ProQuest, SAGE Journals, ScienceDirect, and Springer, using keywords like "consumer financial behaviour," "consumer financial attitudes," "financial products," and "financial services." Through this, 67 previous studies were retrieved in total. In the second phase, some inclusion and exclusion criteria were applied to exclude studies published before 2000 and those that did not have the required statistical data, tumbling the number of studies to 15. Finally, the remaining studies were carefully reviewed to ascertain whether they were suitable for the study. This led to the elimination of five (5) more studies, leaving behind 10 studies. Table 1 shows the summary of all included studies.

3.3 Data Extraction

Three main categories of data were extracted from each included study. These included the study identification category, the sample characteristics category, and the outcomes category. The study identification category essentially lists the last name of author(s), the year of publication, the publication journal, and the method of data analysis. The Sample Characteristics category then highlights the size of the sample, the sector and company type of the sample, and the country in which the respondents resided. The Outcome Characteristics category then contains a detailed description of consumer behaviour and the financial products/services presented in the study. Akin to this category are the statistical data reported in the study: Effect sizes, reliabilities, etc.

3.4 Hypothesis Testing

Even though this meta-analysis followed the meta-analytic procedure of Hunter and Schmidt (2004), and the data analysis was performed using the Meta-

Essentials tool, the heuristic for hypothesis testing was based on Cohen's (1992) guidelines and p-values. An effect size (r) of 0.1 to 0.3 represents a small effect, 0.3 to 0.5 represents a medium effect, and 0.5 or more represents a large effect (Cohen 1992). Thus, while the strength of the relationships (effects) was determined using Cohen's guidelines, the statistical significance of the effects was defined based on a p-value of 0.05. Total effect size estimates were the average of the weighted correlation (\bar{r}) of the sample sizes of the included studies. When a study reports effect sizes for multiple consumer behaviour and financial products and services variables, an average effect size estimate is calculated for that study.

The reliability coefficients of both the dependent and independent variables were recorded for each study, and the average of the available reliabilities was included as the reliabilities of the few studies (Howcroft et al., 2003; Bhushan 2014; and Park 2021) in which reliability coefficients were not reported. This allowed for the correction of measurement error for each study using the formula recommended by Hunter and Schmidt (2004); $\bar{r}_c = \frac{\bar{r}}{\sqrt{\bar{r}_{xx}} \cdot \sqrt{\bar{r}_{yy}}}$ before conducting the main analysis. Heterogeneity is measured by combining Cochran's Q and the I^2 statistic. A value of the I^2 statistic of 25% is considered low heterogeneity, 50% moderate heterogeneity, and 75% high heterogeneity. The heterogeneity test was therefore guided by this general rule.

4.0 Results

4.1 Descriptive Sample Characteristics

Considering that a single effect was taken from each included study, a total of ten effect sizes resulted from a total sample size of 6,948. Whereas the effect sizes (correlation coefficients) for the dependent and independent variables was between 0.050 to 0.814, the samples (N) for the studies included was from 132 to 4110 respondents. Table 2 shows the profile of the studies included.

Table 2: Profile of Studies Included

			n	%	
Geographic Region:			Year of Publication:		
Africa	3	30	2003	1	10
Asia Pacific	4	40	2014	1	10
Europe	2	20	2015	1	10
North America	1	10	2016	3	30
Statistical Method:			2019	1	10
Regression Analysis	5	50	2020	2	20
SEM	4	40	2021	1	10
Chi Square	1	10			

4.2 Heterogeneity Test

The results of the heterogeneity test for the proposed relationship show a significant Q value (3690.2) and an I² index of 99.8%. This justifies the selection of the random-effects model and as well indicates that the moderator analysis be performed due to the heterogeneity of the relationship.

4.3 Test of Hypotheses

Table 3 presents the meta- and subgroup analysis results on the influence of consumer behaviour on consumers' choice of financial products and services. In line with Cohen's (1998) measures, a conclusion can be drawn that consumer behaviour has a significantly strong ($\check{r} = 0.785$; $p = 0.000$) influence on consumers' purchase of financial products. This is also evident from the Forest Plot (Appendix C). It confirms the results of most studies in this area and supports hypothesis H1. To assess the moderating effect of the year and geographic region in which the included studies were conducted and published, a moderator analysis was performed. Because of its categorical nature, the moderating influence of geographic region was tested using the subgroup technique, whereas that of publication year was analyzed using meta-regression.

The findings demonstrate that the region and year of publication had a significant ($p < 0.05$) effect on consumers' financial behavior. The meta-regression findings suggest that the year in which the primary studies were published had a negative ($B = -0.14$; $p = 0.000$) effect on consumers' financial behavior. In terms of geographic region, African consumers are the most influential, followed by European and Asian-Pacific consumers. As a result, hypothesis H₂ was likewise supported. At this point, however, it is important to note that unlike the main analysis, which was conducted using the random effects

model, the moderator analysis was conducted using the fixed effects model, based on the recommendation of Hak et al. (2016). The results of the meta-regression are shown in Table 4.

Table 3: Meta- and Moderator Analysis Results

Proposed Relationship	Effects	N	\bar{r}	p-value	95% CI		Std Error
					Lower Limit	Upper Limit	
H ₁ : Consumer Behaviour → Financial Products/Services	10	6,948	0.785	0.000	0.415	0.932	0.273
H _{2a} : Consumer Behaviour → Financial Products/Services	9	2,838	0.467	0.000	0.445	0.488	0.012
Africa	3	786	0.941	0.000	0.920	0.956	0.036
Asia Pacific	4	1291	0.488	0.000	0.417	0.553	0.030
Europe	2	761	0.920	0.000	0.809	0.967	0.036

Note: The number of studies is represented by **Effects**, the sample size is **N**, and the effect size is \bar{r} .

Table 4: Results of Meta Regression Analysis

	B	SE	CI LL	CI UL	β	Z-value	p-value
Intercept	282.52	6.24	268.41	296.6		45.30	0.000
Moderator (Year)	-0.14	0.00	-0.15	-0.13	-0.74	-45.22	0.000

Analysis of variance	Sum of squares (Q)	df	p-value	Mean square	F-Value	p-value
Model	2044.68	1	0.000	2044.68	9.94	0.014
Residual	1645.50	8	0.000	205.69		
Total	3690.18	9	0.000			

Combined effect size	0.51
T ² (method of moments estimation)	0.50
R ²	55.41%

Table 1: Summary of Included Studies

Paper	Sample	Method	Input Variables	Output	Findings
Howcroft et al. (2003)	244	Regression	1. Consumer Behaviour, 2. Customer Relationship, 3. Financial Literacy	Financial products acquisition	Consumers' acquisition of financial products varies according to the nature of the financial products.
Bhushan (2014)	516	Chi Square	Financial literacy	Investment Behaviour/ preferences	The level of financial literacy of salaried individuals influences their awareness and investment preferences.
Mariyaki & Ayuba (2015)	384	Regression	1. Consumers' awareness, 2. Perceptions,	Islamic Insurance	Consumer attitudes about Takaful service patronage are strongly connected to awareness, perception, trust, and confidence.
Mansour, et al. (2016)	132	Regression	1. Perceived Usefulness, 2. Credibility, 3. Service quality	Attitude towards e-banking services	Customers' attitude toward various bank technologies is influenced by several factors.
Saburzayev (2016)	517	SEM	1. Awareness, 2. Perceived value 3. Subjective norms	Intention to buy Islamic financial products and services	The inclination to use Islamic financial services and products in Tatarstan is positively impacted by awareness, attitude, and subjective norms.
Xia & Hou (2016)	202	SEM	1. Use Intention, 2. Ease Of Use, 3. Innovation Diffusion 4. Utility	Online Financial products	Consumers' usage intentions are considerably increased by compatibility and relative utility advantages, and simplicity of use also has an indirect impact.
Hogue et al. (2019)	273	Hierarchical Regression	1. Customers' attitude, 2. Marketing practices, 3. Financial considerations	Intention to buy Islamic banking products	Customers' behavioural intention to buy products from Islamic banks is positively impacted by their attitude toward Islamic banking.
Lajuni et al. (2020)	300	SEM	1. Customers' attitude, 2. Social value, 3. Financial literacy	Intention to acquire Islamic financial products	Individuals' intentions to use Islamic financial products or services are predicted by attitudes, social value, perceived behavioural control, and Islamic financial literacy.
Kebede (2020)	270	Regression	1. Awareness, 2. Relative Advantage, 3. Compatibility, 4. Complexity, And 5. Trust	Intention to adopt digital financial products	Customers do not effectively use digital financial products and services due to a lack of awareness, perceived relative advantage, perceived compatibility, and perceived complexity of the products and services.
Park (2021)	4110	SEM	1. Self-determination, 2. Financial psychology	Debt management behaviour	Without the mediation of financial psychology, self-determination and motivation alone cannot result in a direct change in financial behaviour.

5. Conclusion

The sole purpose of this study was to evaluate the impact of consumer behaviour on consumers' intention to purchase financial products/services. To address the research questions and evaluate the hypothesis, we examined online and offline sources for relevant research (articles, theses, dissertations, conference papers, etc.) published on this topic since 2000. This yielded a total of 67 studies, only 10 of which matched the inclusion criteria.

Using Hunter and Schmidt's (2004) meta-analysis approach, a summary effect of 0.785 (CI 95% = 0.415, 0.932; $p = 0.000$) was obtained with a Cochran's Q of 3690.2, showing that consumer behavior has a significantly high influence on consumers' desire to acquire financial products. . All of the potential moderators were also shown to have some impact on the association between the two variables.

The implications of these research findings are that financial institutions must strive to get closer to their customers to better understand consumers' needs, wants, and desires. They also need to have mechanisms in place to effectively obtain feedback on how their actual and potential customers respond to their financial products and services. The findings give financial services industry players hope that, regardless of their geographic location, a better understanding of consumers and effective customer relationships will significantly improve both the financial and non-financial performance of their businesses.

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Appendix A

List of Included Studies

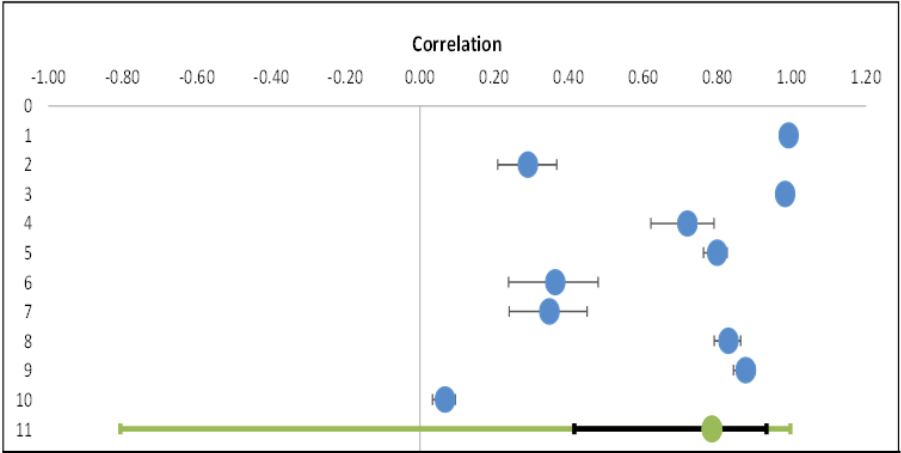
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Appendix B

Distribution of Included Studies Across Journals

Year	Study	Journal
2003	Howcroft et al. (2003)	Service Industries Journal
2014	Bhushan (2014)	Journal of Business Management & Social Sciences Research
2015	Maiyaki & Ayuba (2015)	International Journal of Marketing Studies
2016	Mansour, et al. (2016)	Review of International Business and Strategy
2016	Sabirzyanov (2016)	Journal of King Abdulaziz University: Islamic Economics
2016	Xia & Hou (2016)	Financial Innovation
2019	Hoque et al. (2019)	Journal of Financial Services Marketing
2020	Lajuni et al. (2020)	Malaysian Journal of Consumer and Family Economics
2020	Kebede (2020)	A Journal of International Trade, Logistics and Law
2021	Park (2021)	Young Consumers

Appendix C
Forest Plot



Chapter 30

Herd Behavior In Cryptocurrency Market: Recent Evidence

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1. Introduction

In behavioral finance, herding is a concept used to describe investors who mimic what other investors do and make their own buy or sell decisions accordingly such as what is experienced during 2008 global financial crisis started in the US subprime mortgage market (Bouri, Gupta and Roubaud (2019)).

Christie and Huang (1995) investigate the herd behavior in the US stock market by introducing a dummy variable regression model. In the model, dummy variables represent the market 1% and 5% left(down) and right(up) tails of the market return. They modelled return dispersion as cross section standard deviation CSSD and then employed dummy variable regression to detect the presence of herd behavior. The logic behind the model is that if there is herding in the market than, return dispersion modelled as CSSD would be smaller than what is expected from the rational asset pricing theory. They found that investors' behavior complies with the rational asset pricing and there is not any evidence of herding in the US equity markets. Chang, Cheng and Khorana (2000) introduced a different version of Christie and Huang (1995) econometric model by defining return dispersion in absolute value terms, namely cross-sectional absolute deviation CSAD and show that if investors comply with the rational asset pricing model, then the relation between CSAD and market return is linear and CSAD is an increasing function of market return. Therefore, to detect herd behavior, they introduced an econometric frame work where CSAD is a nonlinear function of the market return. They examined the herd behavior for the US, Hong Kong, Japan, South Korea and Taiwan and documented strong evidence of herding only in South Korea and Taiwan stock markets. Demirer and Kutan (2006) examine the existence of herd behavior in Chinese equity markets, i.e., Shanghai and Shenzhen stock markets, by employing Christie and Huang (1995) regression model. They reported no evidence of herding in Chinese equity markets. Chiang and Zheng (2010) examined the herd behavior for 18 countries from Europe, the US, Latin America and Asia and reported that there is herding in each countries' stock market except Latin America and the US. The study revealed that in each stock market, there is herding with the national markets as well as the US market while investors in Latin America are only herding with the US market. Mobareka, Mollaha and Keaseyb (2014) investigated the herd behavior across European countries and provides evidence of herding during crises and turmoil periods. Stavroyiannis and Babalos (2017) explore the presence of herd behavior in Shariah-based investments by using the U.S. Dow Jones Islamic index both in static context and time varying context and they documented that there is not any evidence of herding in the index return.

Herding behavior could be a possible explanation for the significant ups and downs in the cryptocurrency markets even when there isn't any justifying information in the market. Bouri, Gupta and Roubaud (2019) is one of the studies that investigates the herd behavior in 14 cryptocurrencies by employing econometric model presented in Chang, Cheng and Khorana (2000) in a dynamic setting. They reported evidence of herding in some periods while some other periods there is not any evidence of herding. Kallinterakisa and Wang (2019) explored the herding behavior in cryptocurrencies and documented the evidence of asymmetric herding while market is in the up-trend. Stavros and Vassilios (2019) also documented the presence of herd behavior in cryptocurrency market. Ren and Lucey (2022) explored the herd behavior among cryptocurrencies by grouping the cryptocurrencies in two groups, namely, clean and dirty cryptocurrencies. If a cryptocurrency is required to consume great deal of energy it is a "black/dirty" cryptocurrency, while it consumes less energy, it is a "green/clean" cryptocurrency. They documented those dirty cryptocurrencies exhibit herding while green cryptocurrencies do not provide any evidence of herding. Rubbaniy, Tee, Iren and Abdennadher (In press) is one of the recent studies that examines the presence of herding in a dynamic setting as well as its relation to the investors' mood. They provided evidence of herding in certain periods but not in all the periods, which is an indication that herd behavior in the cryptocurrency market changes over time.

It is not wrong to state that the finance literature provides evidence of herding in cryptocurrency market. However, cryptocurrency market is rapidly changing market in terms of both market capitalization, legal requirements, investors' profile and properties of that nature. Therefore, this paper contributes to the field by providing recent evidence that whether cryptocurrencies exhibit herd behavior or not by following the approaches of Christie and Huang (1995) and Chang, Cheng and Khorana (2000) both in static and dynamic setting via the rolling regressions. The paper is organized as follows next section provides data and methodology. Section 3 provides the results of the empirical analysis and last section concludes the paper in a nutshell.

2. Methodology and Data

I followed econometric approaches of Christie and Huang (1995) and Chang, Cheng and Khorana (2000) to explore recent evidence of herding in cryptocurrency market. Christie and Huang (1995) define cross-section standard deviation (CSSD) as the return dispersion in equation (1)

$$CSSD_t = \sqrt{\frac{\sum_{i=1}^n (R_{i,t} - \bar{R}_t)^2}{n-1}} \quad (1)$$

where n is the number asset in the portfolio, $R_{i,t}$ is the return of individual asset i at time t , \bar{R}_t is the cross-sectional average of n returns in the market portfolio at time t . The intuition behind CSSD is that in the presence of herding in a market, the return dispersion around the market portfolio should decrease, otherwise dispersion should be high according to CAPM. Since herding is pronounced especially when the market extremely moves up or down, therefore, one can test the presence of herding with the significance and sign of estimations of the following regression in equation (2)

$$CSSD_t = \alpha + \beta_1 D_t^L + \beta_2 D_t^U + \varepsilon_t \quad (2)$$

where $D_t^L = 1$ if the market return on day t is in the %1 or %5 lower tail, otherwise zero. $D_t^U = 1$ if the market return on day t is in the %1 or %5 upper tail, otherwise zero. In the presence of herding during periods of market stress, investors suppress their private information and mimic what the market does which implies that return dispersion around the market return is lower than what is expected if herding does not exist. This implies that negative and statistically significant β_1 and β_2 indicate the presence of herding in the examined market. Chang, Cheng and Khorana (2000) introduced a different version of Christie and Huang (1995) model by defining return dispersion as the cross-sectional absolute deviation (CSAD) as in equation (3) and state this version of return dispersion is more robust to outliers.

$$CSAD_t = \frac{1}{n} \sum_{i=1}^n |R_{i,t} - \bar{R}_t| \quad (3)$$

Chang, Cheng and Khorana (2000) showed that in the presence of herding the relation between CSAD and market portfolio is nonlinear and introduces following nonlinear regression to test herding with the sign and significance of γ_1 and γ_2 .

$$CSAD_t = \delta + \gamma_1 |\bar{R}_t| + \gamma_2 \bar{R}_t^2 \quad (4)$$

Negative and statistically significant γ_2 coefficient in equation (4) is the evidence of herding in the examined market.

In the study, regressions of both (2) and (4) employed in a static setting and a dynamic setting in which analysis is performed in a rolling scheme with a rolling window of one year data. I select ten cryptocurrencies - Bitcoin, Ethereum, Tether, BNB, USD Coin, XRP, Solana, Terra, Cardano and TerraUSD- which have the top ten largest market capitalization as of 8th of May 2022¹. The data covers approximately 2 years of historical prices since the newest cryptocurrency among ten cryptocurrencies has only approximately 2 years of data. Here I followed the approach of Bouri, Gupta and Roubaud (2019). They first made the analysis with 50 largest cryptocurrency and then narrowed it down to 14 cryptocurrencies so that the data can cover at least 2-year period. CSSD regressions performed in both in %1 criterion and %5 criterion.

3. Empirical Results

Table 1 presents Christie and Huang (1995) regression results. The negative and statistically significant β_1 and β_2 model the presence of herding in the cryptocurrency market. According to the full sample estimates of these coefficients they are statistically significant and positive. This is strong evidence that cryptocurrency market does not exhibit herd behavior based on the recent data. This result contradicts with the cryptocurrency literature, which states that there exists herd behavior in cryptocurrency market in some periods. Table 2 presents the results of rolling window estimations in which the rolling window is one year. The findings in the static setting are consistent with the result obtained in the rolling window estimation. As it is seen from Table 2, α coefficient's estimations take values between 0.0049 and 0.0063, β_1 takes values between 0.0092 and 0.01, and β_2 takes values between 0.0085 and 0.112. In each rolling window, parameters take statistically significant positive values, which shows the robustness of the results over time. In this dynamic setting, in none of the periods, β_1 and β_2 estimations take statically significant negative values. Therefore, empirical results obtained in static setting are robust in terms of different periods, which provides significant evidence against herding. The result may be indication of the fact that cryptocurrency market is recently in the stage where investors are act in compliance with the rational asset pricing more than before.

¹ All the data is obtained from yahoo finance website.

Table 1: Full sample estimations of Christie and Huang (1995)
regression coefficients

5% criterion				1% criterion			
α	β_1	β_2	R^2	α	β_1	β_2	R^2
0.0056	0.009	0.0108	0.44	0.0062	0.0193	0.0176	0.37
(27.035)	(3.961)	(7.385)		(23.616)	(5.52)	(7.125)	

Note: t-statistics are the values in parentheses. Newey and West standard errors has been used for the significance of the tests of the coefficients.

Table 2: Rolling window estimations of Christie and Huang (1995) regression coefficients

Period	%5 criterion				%1 criterion			
	α	β_1	β_2	R^2	α	β_1	β_2	R^2
30/11/20-30/11/21	0.0063	0.0100	0.0107	0.4080	0.0069	0.0224	0.0181	0.361
	(22.092)	(3.493)	(5.213)		(20.041)	(8.094)	(6.324)	
30/12/20-30/12/21	0.0062	0.0092	0.0108	0.3980	0.0068	0.0203	0.0182	0.339
	(22.409)	(3.427)	(5.240)		(20.221)	(5.315)	(6.373)	
30/01/21-30/01/22	0.0058	0.0092	0.0112	0.4360	0.0064	0.0207	0.0185	0.367
	(24.113)	(3.373)	(5.357)		(20.275)	(5.411)	(6.494)	
28/02/21-28/02/22	0.0054	0.0091	0.0090	0.4290	0.006	0.0211	0.0153	0.409
	(25.859)	(3.206)	(5.888)		(21.881)	(5.538)	(6.342)	
30/03/21-30/03/22	0.0052	0.0092	0.0085	0.4210	0.0057	0.0214	0.0155	0.426
	(24.711)	(3.238)	(5.166)		(21.335)	(5.595)	(6.446)	
30/04/21-30/04/22	0.0049	0.0097	0.0087	0.4680	0.0054	0.0217	0.0158	0.458
	(25.272)	(3.462)	(5.081)		(20.791)	(5.674)	(6.572)	

Note: t-statistics are the values in parentheses. Newey and West standard errors has been used for the significance of the tests of the coefficients.

Table 3 presents the estimations of Chang, Cheng and Khorana (2000)'s regression in the static setting. In their model in equation (4), negative and statistically significant γ_2 indicates that herd behavior exists in cryptocurrency market. The estimation of the δ , γ_1 and γ_2 coefficients are positive and statistically significant, which provides evidence that cryptocurrency market does not exhibit any herd behavior. Table 4 presents the estimations of coefficients in a dynamic setting where estimations are obtained via rolling regressions. As it is seen in Table 4, estimations of γ_2 coefficient varies between 0.0167 and 0.0140, which show consistency of evidence of the absence of herd behavior in dynamic setting also. The empirical analysis revealed that there is not any evidence in favor of herding according to both Christie and Huang (1995) and Chang, Cheng and Khorana (2000) approaches both in static and dynamic setting.

Table 3: Full Sample CCK regression's coefficients

δ	γ_1	γ_2	R^2
0.0003	0.0148	0.0148	0.854
16.874	20.043	2.9900	

Note: CCK is the shorten version of Chang, Cheng and Khorana (2000). t-statistics are the values in parentheses. Newey and West standard errors has been used for the significance of the tests of the coefficients.

Table 4: Rolling window coefficients of CCK regression

Periods	δ	γ_1	γ_2	R^2
30/11/2020-30/11/2021	0.0003 (16.349)	0.0145 (22.242)	0.0149 (3.378)	0.855
30/12/2020-30/12/2021	0.0003 (16.025)	0.0147 (22.913)	0.0140 (3.317)	0.857
30/01/2021-30/01/2022	0.0003 (15.555)	0.0146 (22.042)	0.0151 (3.351)	0.859
28/02/2021-28/02/2022	0.0003 (14.880)	0.0142 (22.653)	0.0167 (3.792)	0.887
30/03/2021-30/03/2022	0.0002 (14.851)	0.0145 (24.030)	0.0156 (3.776)	0.897
30/04/2021-30/04/2022	0.0002 (14.444)	0.0145 (24.147)	0.0161 (3.693)	0.918

Note: t-statistics are the values in parentheses. Newey and West standard errors has been used for the significance of the tests of the coefficients.

4. Conclusion

Herding is one of the important topics in behavioral finance. Herding is a concept used to describe investors who mimic trading pattern of what other investors do. Herding in cryptocurrencies is one of the topics that draws attention of both academicians and practitioners since cryptocurrency market experiencing sudden ups and downs which may occur due to herding in the market. When the literature is reviewed, majority of the literature documented the presence of herding in certain periods and provide evidence in favor of herd behavior. This study aims to explore the presence of herd behavior in cryptocurrency market recently. In terms of market capitalization, investors' profile and increasing attention of individual investors, cryptocurrency market is changing rapidly, which may result in change of herd behavior in the market. Therefore, most recent one and a half year of data is used to examine the herd behavior in cryptocurrency markets via Christie and Huang (1995) and Chang, Cheng and Khorana (2000) econometric models in order to provide most recent evidence of herd behavior in the cryptocurrency market. The empirical analysis provides significant evidence of the absence of herding in cryptocurrency market. The result may be indication of the fact that cryptocurrency market is recently in the stage where investors are act in compliance with the rational asset pricing more than before.

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Chapter 31

The Importance of Computer Vision for Driverless Vehicles

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Introduction

Computer vision is a field of computer science that enables computers to interpret digital images or videos in a similar way to humans. It involves the development of algorithms and software that can automatically detect, identify, and track objects or people in a scene. Computer vision is a rapidly growing field with many real-world applications. For example, it can be used for security and surveillance, medical image analysis, and driverless cars.

Computer vision is an interdisciplinary scientific field that deals with how computers can interpret and understand the visual world [1]. Using digital images from both synthetic (computer-generated) and real-world sources, computer vision systems can analyze these images to recognize objects, track moving objects, and even interpret human activities.

Computer vision has been an active research area for over 50 years. In that time, it has gone through several phases, each characterized by a different focus. Early work in the field was primarily concerned with the development of algorithms for basic tasks such as edge detection and image segmentation.

With the advent of more powerful computers in the 1980s, researchers began to move beyond these simple tasks and develop methods for more complex problems such as object recognition and motion estimation. The 1990s saw a further shift in focus, emphasizing learning-based methods and the development of probabilistic models for vision.

In the past decade, there has been a renewed interest in computer vision, driven by the success of deep learning methods in other areas of artificial intelligence [2]. Deep learning has led to significant advances in many computer vision tasks, such as image classification, object detection, and face recognition [3]. An example of the face recognition system is given in Figure 1.

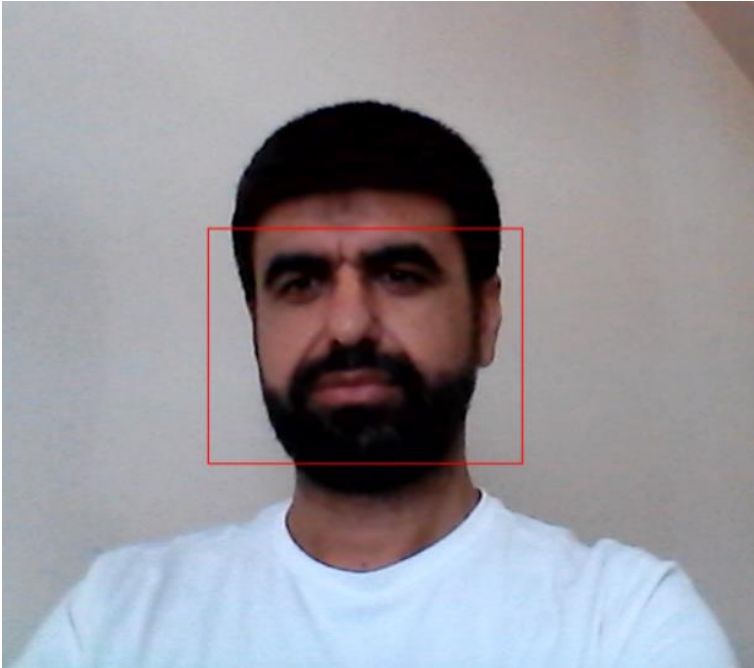


Figure 1: Face recognition

The importance of computer vision for driverless vehicles is twofold. First, driverless vehicles need to be able to perceive their surroundings to navigate safely. This requires identifying objects, estimating their size and shape, and tracking their motion.

Second, driverless vehicles need to understand other road users' behavior to predict their future actions. This requires interpreting and understanding human activities such as gestures and facial expressions. Computer vision is a critical technology for driverless vehicles, and recent advances in the field are beginning to enable these vehicles to navigate safely and interact with other road users.

This study emphasizes the importance of computer vision for driverless vehicles. In the second chapter following the introduction, the issue of computer vision for driverless vehicles is discussed. In the third chapter, computer vision, in the fourth chapter how computer vision works, in the fifth chapter the working structure of the Convolutional Neural Network (CNN), and in the sixth chapter some computer vision techniques are explained. In the seventh part, applications were made on sample images using computer vision techniques and the images obtained as a result of the analysis were given by interpretation. In the conclusion part, the results are listed, and the study is concluded with a short evaluation.

Computer Vision for Driverless Vehicles

Self-driving, or driverless, vehicles are automated vehicles that are designed to travel without the need for a human driver. These vehicles are equipped with a variety of sensors and cameras that allow them to navigate their surroundings and avoid obstacles. Computer vision is a key technology that enables driverless vehicles to interpret their surroundings and make decisions about where to go and how to avoid obstacles. Without computer vision, driverless vehicles would be unable to safely navigate their surroundings.

There are many potential benefits of driverless vehicles, including increased safety, efficiency, and accessibility. Driverless vehicles have the potential to greatly reduce the number of accidents and fatalities on our roads. In the United States alone, there are over six million car accidents each year, and nearly 40,000 people are killed in those accidents [4], [6]. Driverless vehicles have the potential to reduce the number of accidents and fatalities by removing human error from the equation [7]. In addition, driverless vehicles have the potential to increase efficiency by reducing traffic congestion and making better use of our roads. Finally, driverless vehicles have the potential to increase accessibility by providing transportation to those who are unable to drive, such as the elderly or the disabled [8].

Computer vision is critical for driverless vehicles for several reasons. First, driverless vehicles need to be able to detect and identify objects to navigate safely. This includes being able to identify other vehicles, pedestrians, cyclists, animals, and obstacles on the road. Second, computer vision can be used to estimate the speed and direction of objects, which is important for predicting their future location. This is especially important for avoiding collisions. Third, computer vision can be used to detect traffic signs and signals, which is important for obeying the rules of the road. Finally, computer vision can be used to monitor the driver's own eyes and face, which is important for detecting fatigue or distraction.

Several different computer vision algorithms can be used for these various tasks. For example, object detection and identification can be performed using traditional image processing techniques such as edge detection and template matching. However, more sophisticated methods such as deep learning are also being used with increasing success. Deep learning is a type of machine learning that can be used to automatically learn high-level features from data [9]. This is especially well suited for computer vision tasks since images are inherently high-dimensional data. Deep learning methods are highly effective for a variety of computer vision tasks, including object detection, classification, and tracking [10].

However, there are also some potential risks associated with driverless vehicles. One of the biggest concerns is the potential for hackers to take control of the vehicle

and use it to cause harm. Another concern is the potential for job loss as driverless vehicles become more common.

Overall, computer vision is a key technology that enables driverless vehicles to interpret their surroundings and make decisions about where to go and how to avoid obstacles. While there are some potential risks associated with driverless vehicles, the potential benefits outweigh the risks.

The use of computer vision for driverless vehicles is still in its early stages. However, it will play a vital role in making driverless vehicles a reality. In the future, computer vision will likely become even more important as driverless vehicles become more sophisticated and are expected to perform more complex tasks such as lane changing and merging.

Computer Vision

Computer vision is a field of Artificial Intelligence that deals with providing computers with the ability to see and interpret the world in the same way that humans do [11]. It is a relatively new field that is constantly evolving as new technologies are developed.

The goal of computer vision is to create algorithms that can automatically interpret and understand digital images, whether they are 2D photographs or 3D models. This would allow computers to not only identify objects and faces but also to understand the context in which these objects are placed and to identify relationships between them.

Some of the most common applications of computer vision include facial recognition, object detection and tracking, image stitching, 3D reconstruction, and scene understanding. However, the potential applications of computer vision are virtually limitless, and new applications are being developed all the time.

Facial recognition is one of the most well-known applications of computer vision. It involves using algorithms to analyze a digital image and identify certain facial features. This information can then be used to identify individuals, even in a crowd.

Object detection and tracking are other common applications of computer vision. This involves using algorithms to identify objects in a digital image and then track their movements. This can be used for a variety of purposes, such as security and surveillance, or for tracking objects in a manufacturing process.

Image stitching is another common application of computer vision. This involves taking multiple images and combining them into a single image. This can be used to create panoramic images or to stitch together images from different viewpoints.

3D reconstruction is another common application of computer vision. This involves using algorithms to create a 3D model of an object from a set of 2D images.

This can be used for a variety of purposes, such as creating 3D models of buildings or landmarks.

Scene understanding is another common application of computer vision. This involves using algorithms to interpret the contents of a digital image. This can be used to identify the objects in an image and their relationships to each other.

The potential applications of computer vision are virtually limitless. As new technologies are developed, new applications for computer vision are sure to be discovered.

How Computer Vision Works

The automatic extraction, analysis, and understanding of useful information from a single image or a sequence of images are known as computer vision [12]. It involves the development of methods to artificially simulate the human visual system to enable computers to "see" and interpret the world in the same way that humans do.

The goal of computer vision is to provide computers with the ability to understand and interpret digital images in the same way that humans do [13]. This would enable computers to automatically identify objects, faces, text, and other features in images and understand their relationships.

Computer vision is a very challenging field, as it requires computers to interpret and understand the complex and often ambiguous visual information that humans take for granted. However, significant progress has been made in recent years, and there are now several commercial applications of computer vision, such as face recognition, object tracking, and image search [14].

How does computer vision work? The basic process of computer vision can be divided into three steps:

1. Pre-processing: Pre-processing is the first step in computer vision, and it typically involves image enhancement and noise reduction.

Image enhancement is a process that aims to improve the quality of the image, making it easier for the computer to interpret [15]. Enhancement techniques include contrast adjustment, color balance, and sharpening.

Noise reduction is a process that aims to remove unwanted noise from the image, such as salt and pepper noise, Gaussian noise, and speckle noise. Noise reduction techniques include blurring, median filtering, and wavelet denoising.

2. Feature extraction: Feature extraction is the second step in computer vision, and it involves the identification of relevant features in the image [16]. Features are typically small regions of interest that can be used to characterize the image.

Common features include edges, corners, and blobs. Edges are boundaries between regions of different intensities, and corners are points where two or more

edges meet. Blobs are regions of uniform intensity and can be used to identify objects in the image.

3. Image interpretation: This step involves the use of machine learning algorithms to interpret the features and understand the scene.

Machine learning is a process that enables computers to learn from data, and it is a key enabler of artificial intelligence. There are a variety of different machine learning algorithms, including supervised learning, unsupervised learning, and reinforcement learning.

Supervised learning is a process where the computer is given a set of labeled training data, and it is then able to learn and generalize from this data. Common supervised learning algorithms include support vector machines and decision trees.

Unsupervised learning is a process where the computer is given a set of data but no labels, and it is then able to learn and generalize from this data. Common unsupervised learning algorithms include k-means clustering and Principal Component Analysis [17].

Reinforcement learning is a process where the computer is given a set of data and a reward function, and it is then able to learn and generalize from this data to maximize the reward. Common reinforcement learning algorithms include Q-learning and SARSA.

Convolutional Neural Network

A convolutional neural network (CNN) is a type of neural network that is used in image recognition and classification [18]. CNNs are similar to traditional neural networks in that they are composed of a series of layers, but they also have a few unique characteristics that make them well-suited for computer vision tasks.

One of the key characteristics of CNNs is that they can extract features from images. This is done through a process called convolution, which involves applying a filter to an image. The filter extracts a certain feature from the image, and this information is then passed to the next layer of the network.

CNNs are also able to learn from data. This means that they can be trained to recognize certain patterns in images. For example, a CNN might be trained to recognize faces. Once the CNN has been trained, it can then be used to classify new images.

CNNs have proven to be very successful in computer vision tasks. They have been used to develop systems that can recognize objects in images, identify faces, and even read handwriting.

Convolutional neural networks can automatically extract relevant features from images and convert them into a form that can be used by a machine learning

algorithm. This is a significant advantage over traditional neural networks, which require the user to manually extract features from images.

The convolutional layers in a convolutional neural network are designed to extract features from an image. These features can be anything relevant to the task at hand, such as edges, corners, or textures.

CNNs are similar to traditional neural networks in that they are made up of an input layer, hidden layers, and an output layer [19]. However, CNNs also have a few additional layers, including convolutional and pooling layers. In Figure 2, the CNN architectural structure is given.

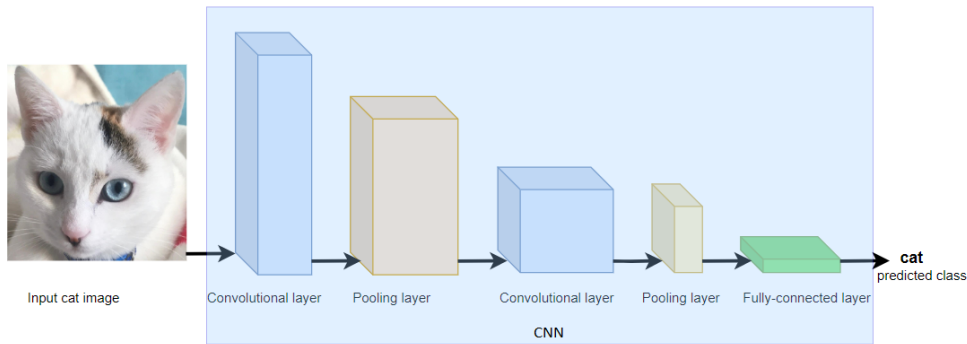


Figure 2: CNN architecture

The first layer in a convolutional neural network is typically a convolutional layer. The convolutional layer is responsible for creating the convolutional kernels that will be used to detect features in the input data. The pooling layer is used to reduce the dimensionality of the data, making it easier for the network to learn from.

The second layer in a convolutional neural network is typically a pooling layer. This layer is responsible for downsampling the feature map produced by the convolutional layer.

The third layer in a convolutional neural network is typically fully connected. This layer is responsible for mapping the features extracted by the convolutional layers to the neural network's output.

The convolutional layers in a convolutional neural network are typically followed by one or more fully connected layers [20]. The fully connected layers are responsible for mapping the features extracted by the convolutional layers to the neural network's output.

The output of a convolutional neural network can be used for a variety of tasks, such as image classification, object detection, and image segmentation.

Some Computer Vision Techniques

Image classification, object detection, object tracking, content-based image retrieval, semantic segmentation, instance segmentation, image segmentation, and pose estimation techniques are commonly used in computer vision. Let's explain these techniques now.

- **Image classification:** Image classification is the process of assigning a class label to an image. This can be done either manually, by looking at the image and assigning a label, or automatically, by using a computer algorithm [21].
- **Object detection:** Object detection is a computer vision technique for identifying objects in digital images or videos. It involves identifying and locating objects in an image or video and then classifying them into one or more categories [22]. Object detection can be used for a variety of applications, such as security and surveillance, traffic monitoring, and automated vehicle control.
- **Object tracking:** Object tracking is a method for tracking the movement of an object in an image. Objects in images can be identified and tracked using various parameters (eg size, shape, color, or texture). The object tracking method is an image processing technique and is frequently used in studies on images [23].
- **Content-based image retrieval:** The concept of "Content-based image retrieval (CBIR)" is an approach to classifying and querying an image based on its content. This approach uses different visual attributes that help classify and interrogate an image. CBIR systems use a variety of methods to identify, classify, and query images. These methods include image processing techniques, visual features, image databases, and image sorting methods [24], [25].
- **Semantic segmentation:** Semantic segmentation is a method of decoding visual meaning by breaking an image into a series of small pieces made up of different objects. This method examines an image and tries to understand what it is. Semantic segmentation is a method used in image processing and artificial intelligence. Semantic segmentation is a time-consuming process, depending on the size of the image, as it requires processing an image at the pixel level [26], [27].
- **Instance segmentation:** Instance segmentation is a computer vision technique that involves identifying and segmenting individual objects in an image. This is usually done by first identifying all the objects in the image

(object detection), and then segmenting each object individually (segmentation) [28].

There are many different methods for instance segmentation, but one popular method is Mask R-CNN. Mask R-CNN is a deep learning method that combines object detection and segmentation. It works by first detecting all the objects in an image, and then segmenting each object individually. Mask R-CNN is a popular method for instance segmentation because it is accurate and efficient. However, other methods are also effective, such as GrabCut and Watershed [28].

- **Image segmentation:** Image segmentation is a computer programming technique for splitting an image into one or more parts. This technique can be used to better understand, manipulate or store the image. Image segmentation can use many different methods for dividing an image. Among these methods, it can use different criteria such as geometric shapes, colors, and objects of the image [24], [29].
- **Pose estimation:** Pose estimation is a computer vision technique for estimating the pose of an object from an image or point cloud. The pose of an object is its orientation and position in space. Pose estimation algorithms typically take as input an image or point cloud and output a set of estimated poses for the objects in the scene [30]. These methods are used in many areas such as image data processing, image calibration, image attributes, and image classification.

Computer Vision Applications

Computer vision applications are important for driverless cars because they enable computers to interpret and understand digital images. This is important because images are a key part of how humans communicate and understand the world around them. By understanding images, computers can better assist humans in tasks such as object recognition and scene understanding.

There are many different computer vision applications, each with its specific purpose. For example, some computer vision applications are used for security and surveillance, while others are used for medical image analysis or driverless cars. No matter the specific application, computer vision plays a critical role in helping humans interact with and understand the world around them.

In this study, applications were made using PyTorch open-source software. PyTorch is a powerful and flexible deep learning framework. It is easy to use and efficient, making it an excellent choice for image classification. A pre-trained network is used for image classification. As a result of image classification, the image in Figure 3 was obtained.



Figure 4: Object detection

By applying the object detection technique in Figure 4, the objects in the image were labeled and put into the box. Object detection correctly identified objects in the image. As a result of the analysis, where an object in the image is, where it starts, where it ends and its size is determined.

Driverless vehicles use semantic segmentation to link each pixel of an image to a label (an example of a classification category). This helps identify which regions in an image a vehicle is in. Semantic segmentation helps tools better understand and respond to objects in the image. Figure 5 was obtained result of semantic segmentation analysis.

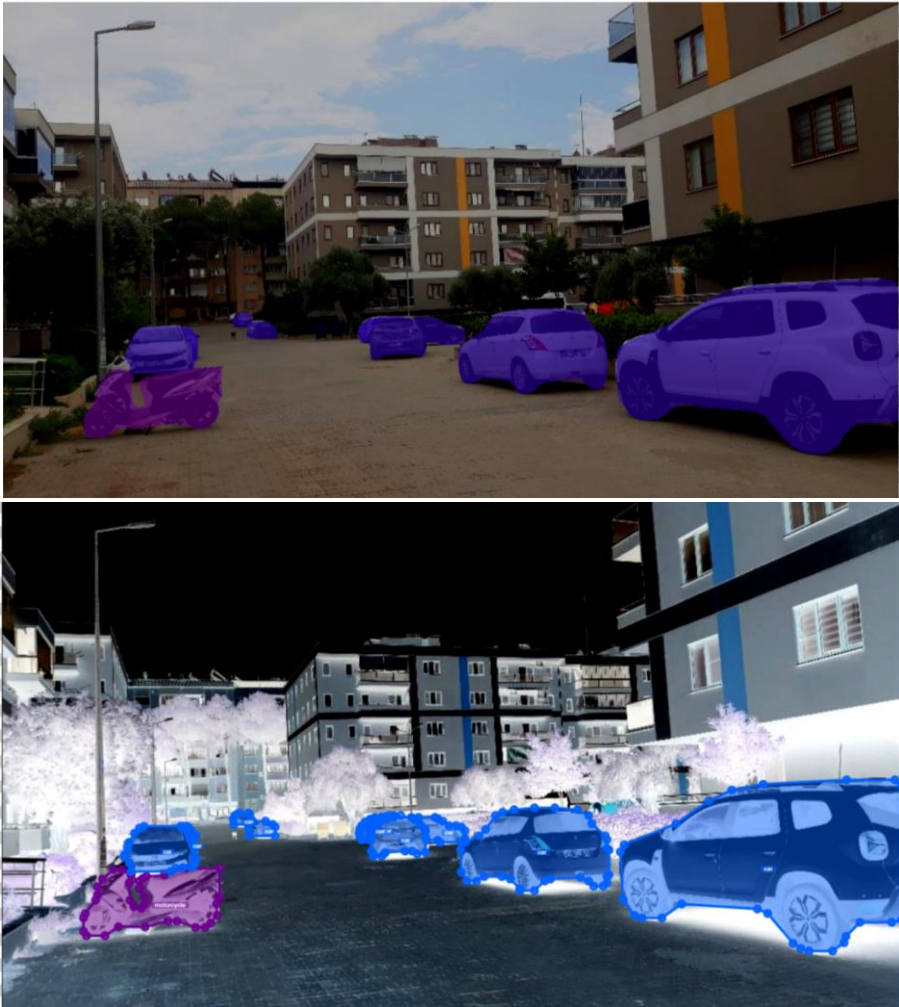


Figure 5: Semantic segmentation

As seen in Figure 5, as a result of semantic segmentation, each pixel in the image is divided into one of a series of classes. As a result of the semantic segmentation analysis, the objects are painted with colors originating from the class they belong to. Accordingly, cars are painted with the same color, and motorcycles with a different color.

Driverless vehicles use instance segmentation to identify objects in their environment. This is important so that they can recognize any object in their environment and act accordingly. In Figure 5, instance segmentation results obtained using the Mask R-CNN deep learning model are given.



Figure 5: Instance segmentation

As seen in Figure 5, as a result of the analysis, it is seen that each object is detected and the same objects (cars) are indicated with different color pixels.

The pose estimation technique is used to detect the position, position, orientation or gait of a person in an image. Pose estimation can also help to understand where a person is and what they are doing. In Figure 6, the visual obtained as a result of pose estimation is given.

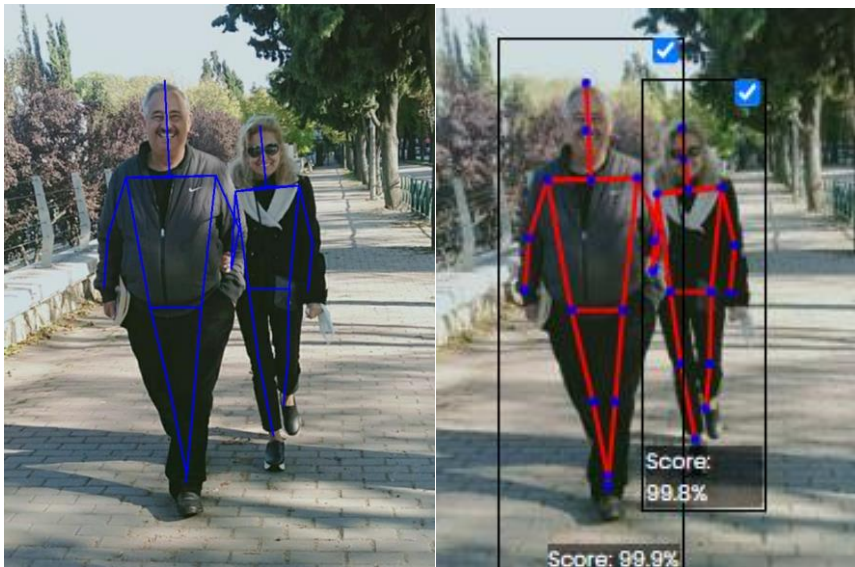


Figure 6: Pose estimation

In the image obtained as a result of pose estimation in Figure 6, the direction and position of the user were estimated. The algorithm correctly perceived, aligned, and predicted the male with 99.9% probability and the female with 99.8% probability. These results show that the predictions made have high reliability.

As a result, driverless vehicles can detect the positions and orientations of people in traffic using pose estimation. This information can be used to help prevent the vehicle from colliding with pedestrians. This is important for driverless vehicles to operate safely.

Conclusion and Discussion

Visual data to understand and interpret images allows people to understand and interact with the physical world. Visual data can be used in many different fields and interpreted in many ways. This allows staff and researchers to collaborate in different fields to solve them. The gradual development of software and hardware required for the interpretation of visual data allows visual data to be interpreted and used more effectively.

Image classification, object detection, semantic segmentation, instance segmentation, and pose estimation techniques are the most used methods in image processing. Thanks to the application of these methods, it is possible to better understand and process images. In the applications made in this study, it has been shown that more information can be obtained from the images and more accurate results can be obtained.

In the context of driverless tools, image recognition, object recognition, semantic segmentation, instance segmentation, and pose estimation techniques are the most widely used methods. Using image recognition and object recognition techniques allows vehicles to better identify and interact with surrounding objects. Using the semantic segmentation technique allows tools to more accurately recognize and interact with objects they encounter. Using the instance segmentation technique allows tools to more accurately recognize and interact with objects in the image. Pose estimation is an important technique for autonomous vehicles. Driverless vehicles use pose estimation to detect the position and orientation of an object, using images. Using all these techniques allows vehicles to better understand and interact with objects around them. Practices show that it is possible to obtain more information from images and achieve more accurate results.

In conclusion, the future of computer vision looks very bright. With the advent of new technologies, such as Deep Learning, and the continued increase in computing power, the potential for computer vision applications is virtually limitless. Some of the most exciting potential applications for computer vision include autonomous vehicles, medical image analysis, object and scene recognition, Activity recognition,

Texture analysis, 3D reconstruction, Augmented reality, Video surveillance, Robotics, And much more!

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Chapter 32

Re-visiting the Push-Pull-Mooring (PPM) Model of Electricity Supplier Switching for Smes: The Pandemic and the War Update

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INTRODUCTION

Liberalization in the power & utilities (P&U) sectors has already passed its fourth decade. Its purpose in general is that the public can get better price / service quality (Joskow, 2006) and greater operating efficiency (Payne & Frow, 1997) by allowing competition to emerge. While consumer switching is a critical indicator of liberalization performance (Defeuilley, 2009), there is little evidence that the electricity markets' concentration is in a decline (Council of European Energy Regulators, 2017).

According to the European Commission (2021), the switching processes are perceived as troublesome for more than 60% of the consumers. In other words, consumers cannot take advantage of deregulated markets (Gamble, Juliusson, & Gärling, 2009; Ghazvini, Ramos, Soares, Castro, & Vale, 2019). Therefore, regulators pay a special attention to switching, which is directly related to better competition, the regulators' primary duty. A decade ago, there wasn't much evidence that electricity consumers were fond of switching: The global average switching rate for 2011, calculated based on residential and commercial consumers in 38 electricity markets, was 7.75% (VaasaETT, 2012b).

Many things have happened since then, which can be easily named as a paradigm shift. First, Covid-19 pandemic has locked people in their homes, causing about 6.5 million deaths (Google News, 2022), a socio-economic crisis, and an economic recession (Chen, de Rubens, Xu, & Li, 2020). Although the vaccines have been developed and applied globally, supply chains are still under important threat. Inflation has started to grow in every country in the world. On top of it, Russia's attack on Ukraine has started a war that has critical consequences such as a potential stagflation and supply risk of grains, materials, and energy. This is mostly triggered by western countries' restrictive measures against Russia (European Council, 2022) and Russia's response of cutting the natural gas flow to western countries (BBC, 2022).

Currently short-term impacts are experienced by the energy sector such as increasing costs of logistics, cost of capital, decreasing appetite for new public investments, rising prices, fossil fuel rush, and late / deferred payments (The Rockefeller Foundation, 2022). Expected long-term impacts and roadmap steps are increasing off-grid and renewable share in electricity generation and diversification of the renewable energy supply (Zakeri, ve diğerleri, 2022). Taking into account the European Union's approval of ban on fuel cars as of 2035 to promote electric vehicles (Abnett, 2022) and the research & development efforts on electric planes (Mullaney, 2022), the electricity will be at the heart of almost every aspect of the society.

Looking at the people, the consumers of electricity, they are going through quite a difficult time. According to VaasaETT (2022), all-in electricity prices have risen by

85% and gas prices by 160% in Europe since the “old normal” times before Covid-19. When switching from the by-default tariff to the cheapest available option, customers can save 53 € more per year now, compared to 2015 – 2021 period before Covid-19. In other words, there are still electricity saving opportunities for consumers by simply switching to the cheapest tariff. Despite the rise in savings, the percentage of the bill that can be saved has not changed significantly. Moreover, the saving amounts are positively correlated with the competition level of the countries. Therefore switching rates are keeping their importance for fostering competition during the war and the post-covid era.

Covid-19 pandemic especially hit Small-Medium Enterprises (SMEs). According to OECD (2020) figures, 50% of SMEs had to operate with fewer than 15 days in buffer cash reserves in the first year of the pandemic. SMEs that were identified as relatively healthy had less than two months of cash. Even in the very early days, mass layoffs and bankruptcies had occurred (Bartik, ve diğerleri, 2020). The problematic domains have been profitability, operations and access to finance (Du, Razzaq, & Waqas, 2022). In terms of energy, SMEs have tripled or more of their energy costs (GZERO, 2022). Despite this fact, they are not likely to switch their energy suppliers because of the reasons that hinder switching such as complexity of the switching process (Energy Bill Kill, 2020).

Given a very brief picture of post-covid and Russia-Ukraine war era, it is worth asking whether research on electricity service switching and utilization of the Push-Pull-Mooring (PPM) model are still applicable for the “new normal”. This study aims to examine the PPM model for electricity service switching model that was created by Kilic & Uray (2015) before the significant paradigm shift in the world. The reason to choose that specific model is that it includes a relatively extensive set of factors when compared to other PPM models used in P&U sectors. This paper re-examines some of the factors in the model that are deemed more critical in the new paradigm and discusses and concludes in terms of how the model can be applied in the new normal.

1. LITERATURE REVIEW AND RESEARCH FRAMEWORK

1.1. Service Switching in Electricity Markets

A service business does not consist of separate purchases. It has an ongoing relationship with the customer until an incident comes up and puts switching in the customer’s agenda (Jones & Sasser, 1995). Marketing discipline started focusing on this relationship and how it’s related to switching in the 1990s (Gremier & Brown, 1996). The first studies had focused on satisfaction and made it a popular switching factor in the literature, whereas there were other factors (Jones, 1998) such as service quality, switching costs, trust, price, social bonds, and value.

Switching, for service businesses, can be simply defined as “replacing or exchanging the current service provider with another one (Bansal, & Taylor, 1999). In many sectors switching activity is a unified concept while in P&U the situation is somewhat different. For instance, Lewis (2006) states that switching activity can be measured based on three different approaches. In addition, there are situations where switching activities are treated as staying. This situation arises when a consumer moves to a new house. Lewis (2006) suggests that if a customer (1) remains with the current supplier or (2) switches to the default supplier in the new location, this is not a switching activity. The author adds; “In both cases, it can be stated that the customer took the simplest route”, thus the activity is not evaluated as switching. ECME Consortium (2010) also defines the activity as a non-switch if the customer chooses the supplier selected by the previous occupant of the property.

To overcome this complexity, it is assumed that “the simplest switching route is not counted as a switch”. In some countries, three simplest routes occur while moving to another location: switching to the incumbent ESP of the target region, staying with the current ESP (of the previous location), or keeping the new location’s previous occupant’s supplier. Any of those three are triggered by a necessity, not the competition. Moreover, three of them are the simplest decisions a consumer can make without comparing suppliers or tariffs. Thus, we exclude these three activities from switching. Finally, as explained in VaasaETT (2012b), tariff changes in the same supplier, even it is a switch from the regulated tariff to a non-regulated tariff, will not be evaluated as a switch.

1.2. Explanatory Role of Migration Theory in Switching Context

Migration theory has its origin in Ernst Ravenstein's "Laws of Migration (Ravenstein, 1885)" report published in Journal of the Statistical Society of London Society in 1885. One of the early definitions was a narrow one and given by Dyen (1956) stating that the theory “deals with the inferences of population movements and their directions”. Lee (1966), making a broader definition, suggests that “every act of migration involves an origin, a destination, and an intervening set of obstacles”.

Having given a brief progress of the term’s broadening definition; a step further can be taken to a new level by defining migration as “a movement in physical or fictional space”. This definition lets switching be the subject of migration. All in all, the logic is similar: In service switching, humans relocate from service provider A to B. They make this decision based on some probable reasons such as low service quality or high prices. They encounter some obstacles or factors along the way that might make them give up such as switching costs (long-term contacts) or subjective norms (peer opinion / pressure). Therefore, the migration theory has been applied to

consumer behavior and marketing domains (Zengyan, Yinping, & Lim, 2009) based on this analogy.

Migration models implicitly assume that the decision maker is an individual or the head of the household (Shields & Shields, 1989). Similarly, our study targets SMEs where company “heads” (owners) are the decision makers, just like in a family context. Almost no organizational procurement process was encountered to assess ESPs and their offerings. Therefore, “head of household as the migration decision maker” and “head of SME as the switching decision maker” are associated concepts.

Based on these inferences, we ground on migration theory together with switching literature to develop our PPM switching model. Before proceeding further, we will elaborate on PPM model of migration.

1.3. Adaptation of PPM Model of Migration to the Context of Service Switching

The migration activity has been explained as the resultant of push and pull factors since Ravenstein (Dorigo & Tobler, 1983) Push factors are defined as the dissatisfying attributes of the current location and pull factors are the attractive attributes of the target locations. As emphasized by Du Toit (1990), one of the first people to classify these factors with the push-pull theory was Heberle (1938).

In 1960's, behavioral migration models based on push-pull theory have started to emerge forming different factors under push and pull categorization (Stimson & Minnery, 1998). Wolpert (1966) developed one of the earliest of these models. In the same period, a third categorization has also emerged to finally constitute today's PPM structure: Lee (1966) proposed “intervening obstacles”, addressing the group of factors that stops people from relocating even there are pull and push factors in place. Longino (1992) and Moon (1995) named this third group of factors as “mooring variables”. As a consequent of these developments, the migration model has taken the form of PPM.

Many adaptations of the PPM model to the service switching context have already been made, with occasional exploration of P&U sectors and SMEs (Kilic & Uray, 2015). Before re-examining the PPM model for service switching, a literature review was conducted to identify more recent studies from those described by Kilic & Uray (2015), including the very model they proposed, which applied the PPM migration model for switching. As of 2022, it is found that many studies have applied PPM model in a wide range of sectors from personal cloud services (Cheng, Lee, & Choi, 2019) to retailing (Li, ve diğerleri, 2018). However, only one study was found in the P&U sector that used the PPM model excluding the mooring effects (Hussain, ve diğerleri, 2022). There are also studies that make use of some selected factors of the

PPM model. Therefore, we choose to examine the comprehensive PPM model of Kilic and Uray (2015) that is developed for service switching in P&U sector.

Next section walks through selected factors of the model and aims to explain them in the context of post-covid and Russia-Ukraine war.

2. PPM MODEL FOR P&U SECTOR IN THE POST-COVID AND RUSSIA-UKRAINE WAR ERA

2.1. The PPM Model for P&U switching

The conceptual model of electricity supplier switching is presented in Figure 1. proposes the model in Figure 1. 16 constructs are distributed to as Pull, Push, and Mooring factors and these three factors are expected to predict the dependent variable, switching intention. Mooring effects factor is also expected to affect the relationship between push effects and switching intention and between pull effects and switching intention.

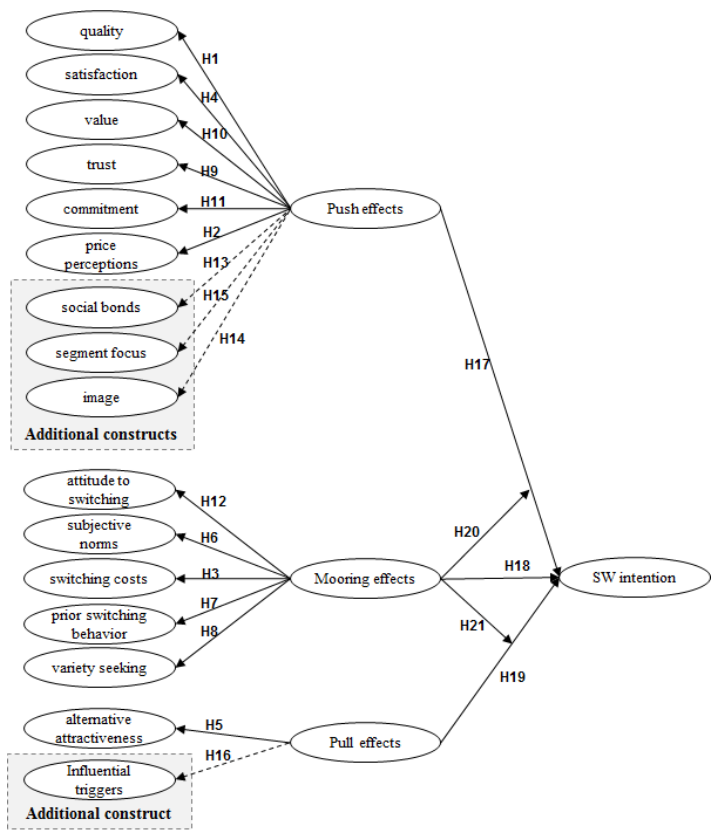


Figure 1: Proposed “migration theory- based” conceptual model for switching (Kilic & Uray, 2015)

2.2. A Walk Through Selected Model Constructs

Having discussed the new era of post-covid and Russia–Ukraine war and their effects, service switching in electricity markets, and PPM model of migration and its application for service switching; we will now move on to dig deeper into some constructs that are expected to be affected by the new paradigm. Service quality, trust, price and switching costs are selected due to their relatively higher relevance for the post-covid and Russia–Ukraine war.

Service Quality

Service quality is a widely known switching factor in the switching literature. It has been revealed as an antecedent of different concepts that can be classified as switching (Bansal, & Taylor, 1999; Lewis & Soureli, 2006; Babu, 2014). In P&U context, electricity suppliers have limited responsibility on the overall electricity infrastructure (Defeuilley, 2009). However, the awareness is very low among customers and their perception is that electricity suppliers are responsible for the entire value chain, from generation to distribution and sales. Thus, some of the technical aspects of the service quality concept should be included. It is known that physical service qualities are important for large B2B consumers (Erdogan, Camgoz, Karan, & Berument, 2021).

Service quality seems to be more important than ever due to the war and the pandemic, as there is a very high perceived risk in grid stability and security of supply (Benton, Froggatt, & Wellesley, 2022). It is not surprising that non-physical service quality is found to promote “perceived trust” during the pandemic (Alzaydi, 2021). In addition, people are willing to pay more for reliable electricity in under-developed countries (Deutschmann, Postepska, & Sarroc, 2021). On the other hand, Europe has managed to successfully maintain grid stability in the presence of low demand during the pandemic (Halbrügge, ve diğerleri, 2021).

Trust

Trust is another factor that has been identified as a switching factor. It is the customer belief that “the firm will deliver expected benefits for the long run” (Lee & Murphy, 2005, s. 198) Trust has been approached as antecedent of switching (Colgate, Tong, Lee, & Farley, 2007).

In P&U context, trust is generally accepted as an antecedent of ESP switching (Ibáñez, Hartmann, & Calvo, 2006). In Australia, 55% of the customers are willing to pay more for premium products from a trusted supplier (EY, 2014). It is expected that trust has become more important during the war and the post-covid era. Hussain et al. (2022) recently reveal that reputation is a critical factor

for switching. Moreover, the high number of supplier failures made trust even more important and led customers to stay with their incumbent electricity providers (VaasaETT, 2022).

Price

In the marketing literature, there are several studies that reveal price as an antecedent of switching (Pirzada, Nawaz, Javed, & Asab, 2014). In P&U context, Pakkanen and Narva (2011) state that electricity customers may not switch due to low savings perceptions. In addition, London Electricity had lost 30% of its sales within a year to the competition offering better prices shortly after restructuring (Payne & Frow, 1997). Therefore, it can be concluded that price is important for a significant portion of the consumers.

Taking the rising costs and inflation in post-2020s into consideration, price is becoming more and more important (Ghiani, Galici, Mureddu, & Pilo, 2020; Hussain, ve diğerleri, 2022). On the other hand, different customer types can react differently to price offerings, as some of them may choose to stay with their providers regardless of the price (Ndebele, Marsh, & Scarpa, 2019). Moreover, customers in general are unsure whether prices will remain the same if they switch to a new supplier offering lower prices (VaasaETT, 2022). A significant portion of SMEs don't trust broker firms during switching (Enterprise League, 2022). These factors can result in more customers becoming insensitive to price differences.

Switching Cost

Switching cost can be a previous physical or psychological investment made for the current service (Klemperer, 1995). According to Colgate and Lang (2001), it is more likely to retain the customer as the investment gets bigger.

In P&U context, opacity of offers, excessive number of offers, difficulty level of switching (Department of Energy & Climate Change, 2012), and ability of former suppliers to obstruct switching are prominent factors with physical and psychological costs. With the increasing risk perception in post-corona and the Russia-Ukraine war times, switching cost is still a critical determinant of switching, especially for high-volume B2B consumers (Erdogan, Camgoz, Karan, & Berument, 2021). From SME perspective, many consider switching too complex, too hard, and too costly (Enterprise League, 2022).

3. DISCUSSION AND CONCLUSION

This article has highlighted a few key points regarding the applicability of the PPM model in electricity supply switchovers during the post-covid and Ukraine-

Russia war period. In particular, it has been seen that security of supply affects almost every factor of the selected factors of the PPM model.

First, service quality seems to be the most important factor, as people are concerned with the availability of electricity, which is very basic necessities during the war. Their high expectations are on hold for an unforeseen time.

Secondly, price is the second most critical factor due to the increase in energy prices, inflation and recession.

Third, since switching to a different supplier in the event of war is perceived as a threat to supply security, switching costs are perceived to be higher than before. Despite increased price sensitivity, perceived risks are deterring consumers from taking action.

Trust is another critical factor in wartime. Consumers are hesitant to make a switching move and prefer to stay with their trusted supplier in times of uncertainty. Often the trusted supplier is an incumbent.

There are also implications for future studies. A field research on SMEs have been more important for two reasons: SMEs are still neglected in electricity serving switching literature, and the negative impact of the war and the pandemic has been greater for them. Therefore it is worth understanding whether the factors they take into account for switching are still the same.

Also, many factors of the PPM model are expected to be dysfunctional, as people tend not to move much during war. It's important to understand why people may switch during these times so as not to suspend competition indefinitely.

In summary, the post-covid era and the war have made it very difficult to progress in the liberalization process and research on switching has become much more valuable. The PPM model is an important tool for understanding the current state of consumers.

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