

THEORETICAL AND APPLIED RESEARCH IN SOCIAL, HUMAN, AND ADMINISTRATIVE SCIENCES

Editör
Prof. Dr. Ateş BAYAZIT



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Chapter 1

Natural Disasters Don't Kill, Corruption Does

Cemaleddin GEREDE¹

Doğal Afet Öldürmez, Yolsuzluk Öldürür

Öz

Doğal afetlerin yarattığı yıkıcı etkiler ülkeden ülkeye fark etmektedir. Bazı ülkeler büyük afetleri küçük hasarlarla atlattırken, bazı ülkeler büyük maddi ve insani kayıp ile karşı karşıya kalmaktadır. Bu durumun hangi sebeple ortaya çıktığının anlaşılması, doğal afetlerin yıkıcı ve ölümcül etkilerinin ortadan kaldırılması açısından önemlidir. Bu çalışmada ülkelerin doğal afetler karşısında yaşadığı yıkımın belirleyicisinin yolsuzluk seviyesi olduğu hipotezi araştırılmıştır. Kurulan ekonometrik model bütüncül veri seti ulaşılabilir olan tüm ülkeler, gelişmiş ülkeler, gelişmekte olan ülkeler ve az gelişmiş ülkeler olmak üzere toplamda dört farklı ülke grubu için analiz edilmiştir. Havuzlanmış En Küçük Kareler yöntemi ile gerçekleştirilen analiz sonucunda, dört modelin hepsi için, ülkelerin yolsuzluk seviyelerinin doğal afetlerden etkilenme düzeyi ile pozitif ve istatistiksel olarak anlamlı bir ilişkisinin olduğu ortaya çıkmıştır.

Anahtar Kelimeler: Doğal Afet, Yolsuzluk, Kişi Başı GDP, Panel Veri.

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Abstract

The devastating effects of natural disasters differ from country to country. While some countries survive major disasters with minor damage, others face huge physical and human losses. Understanding the reasons for this situation is important for eliminating the destructive and deadly effects of natural disasters. This study investigates the hypothesis that the level of corruption is the determinant of the devastation experienced by countries in the face of natural disasters. The econometric model is analyzed for four different country groups, namely all countries for which a complete data set is available, developed countries, developing countries and least developed countries. As a result of the analysis performed with the Pooled Ordinary Least Squares method, it was found that for all four models, there is a positive and statistically significant relationship between the level of corruption in countries and the level of exposure to natural disasters.

Key Words: Natural Disaster, Corruption, Per Capita GDP, Panel Data

1. INTRODUCTION

Each and every natural event is not defined as natural disaster. If a river overflows its bed or an avalanche falls down a hill, this is not a natural disaster, it is just a natural event. Natural events can only be considered natural disasters if and only if they cause or have the potential to cause damage to people, structures or capital in any way (Varnes, 1988, Raschky, 2008: 628). From this point of view, a very strong earthquake in the middle of the ocean cannot be labeled as a natural disaster, while a moderate earthquake in Africa that destroys a village house can be labeled as a natural disaster.

Throughout history, there have been many natural events and disasters, some of which have had more devastating consequences than others. The devastating consequences have varied from country to country. For example, between 1980 and 2002, 14 major earthquakes occurred in India, killing more than 32,000 people. On the other hand, there were 18 major earthquakes in the US in the same period and only 143 people died (Kahn, 2005: 271). Although there were similar numbers of major earthquakes in India and the US, why did 220 times more people die in India? Why did the magnitude of 7 earthquake in Haiti in 2010 kill more than 200,000 people, while the magnitude of 7.2 earthquakes in Mexico and New Zealand caused minor fractures and injuries (Çevik and Jalles, 2023: 3)? Or why did the earthquake in Turkey in 2023 kill more than 50,000 people?

The above questions raise the following fundamental question: Why do the same natural events lead to more devastating consequences in some countries? The main hypothesis of this study is that there is a significant relationship between the destructiveness of natural disasters and the level of institutional fragility of countries. More precisely, the effects of natural disasters are much more deadly in countries with weak institutions and high levels of corruption. This perspective is directly related not only to the disaster management literature but also to the institutional economics approach. Theoretically, corruption is often considered as a reflection of deeper institutional weaknesses.

Acemoglu and Robinson (2012) argue that in countries with weak accountability of public institutions, public goods such as infrastructure are not adequately provided, which increases vulnerability to natural disasters. Similarly, North (1990) argues that ineffective institutions lose their ability to adapt to exogenous shocks (such as natural disasters) and this situation negatively affects economic performance in the long run. These approaches reveal that corruption is not only an ethical problem but also a structural vulnerability factor that increases the destructive effects of disasters. The famous Turkish geoscientist Prof. Dr. Naci Görür also underlined this situation and, referring to the major earthquakes that occurred in Turkey on February 6, 2023, said: “If a country

buries so many people in one night in an earthquake of this magnitude, that country is a rotten country”. In this study, the concept of rottenness will be represented by corruption.

This study examines the relationship between countries' levels of corruption and their vulnerability to natural disasters. In this context, the second section of the study presents stylized facts on countries and natural disasters across the world. The third section provides a summary of the limited literature on the subject and the fourth section is designed as the methodology section. The study is concluded with the fifth section, conclusions and recommendations.

2. SOME STYLIZED FACTS

Almost every country in the world is exposed to natural disasters of various magnitudes. While some countries experience frequent and large-scale earthquakes because they are located in the earthquake zone, others are struggling with severe floods due to heavy rainfall. The resulting picture is not the same for all countries. While some countries suffer small losses of life and property in natural disasters, others suffer huge losses. In this section of the study, some tables on natural disasters are presented. Table 1 presents the countries and the top 10 natural disasters with the highest loss of life since 2000, the years of the disasters, the total number of deaths and the per capita GDP data of the countries in that year.

Table 1: Natural disasters with the highest number of deaths and years

Country	Year	Total Deaths	Per Capita GDP	Disaster
Haiti*	2010	222570	1209	Earthquake
Indonesia*	2004	165708	1126	Earthquake
Myanmar*	2008	138366	658	Storm
China*	2008	87476	3468	Earthquake
Pakistan*	2005	73338	827	Earthquake
Russian Federation**	2010	55736	10674	Extreme temperature
Türkiye**	2023	53000	13105	Earthquake
Sri Lanka*	2004	35399	1028	Earthquake
Iran*	2003	26796	2208	Earthquake
Italy***	2001	20089	20571	Extreme temperature

Note: *, ** and *** show the countries with per capita GDP of lower than 9999, higher than 10000 and higher than 20000, respectively. Source: EM-DAT and World Bank.

As seen in Table 1, Haiti, Indonesia and Myanmar experienced natural disasters that killed more than 100 thousand people. The first 5 countries in the top 10 countries with the highest number of deaths are countries with a per capita

GDP of less than 9999 dollars. Again, there are only two countries with a per capita GDP above 10000 and one country with a per capita GDP above 20000 in the top 10 and the rest are countries with a per capita GDP of less than 9999 dollars. Almost 1 million people lost their lives as a result of these 10 natural disasters. This data alone shows how dangerous natural disasters are and how much attention they require.

Table 2 presents the number of natural disasters experienced by countries since 2000 and the total and average number of deaths per disaster as a result of these natural disasters.

Tablo 2: Countries with highest death per disaster

Country	Death Per Disaster	Total Deaths	Number of Disaster	Average Per Capita GDP
Libya*	4406	13220	3	8555
Haiti*	2613	240462	92	1199
Myanmar*	2508	140462	56	865
Türkiye*	644	54761	85	9095
Spain**	584	35043	60	27592
Pakistan*	546	87969	161	1116
Italy**	535	51912	97	33025
Indonesia*	503	189242	376	2796
Sri Lanka*	475	38030	80	2740
Romania*	470	58314	124	8856

Note: * and ** show the countries with per capita GDP of lower than 9999 and higher than 10000, respectively. Source: EM-DAT and World Bank.

According to the data in Table 2, the country with the highest Death Per Disaster is Libya. Although Libya has experienced only 3 natural disasters in the last 20 years, it has been a country where 4406 people died per disaster. Libya is followed by Haiti and Myanmar. One of the most important results of the table is that, just like in Table 1, the average number of deaths is higher in countries with low per capita income. Considering that per capita income and corruption level are inversely correlated², these data are consistent with the subject of this study.

3. LITERATURE REVIEW

There are many studies in the literature on the economic impacts of natural disasters. However, there is a limited number of studies on the subject that forms the basis of this study, i.e. the relationship between the level of corruption in countries and losses due to natural disasters. The main objective of this study is to empirically investigate the extent to which the level of corruption in countries

² The correlation between variables is presented in Appendix 1.

affects the loss of life due to natural disasters. In this framework, relevant studies are summarized below in order to strengthen the theoretical background and to present the empirical literature more comprehensively. Before moving on to these studies, it is necessary to understand corruption. Corruption is defined by the World Bank as “the abuse of public office for private gain” (World Bank, 2020), while the European Commission defines it as “abuse of power for private gain” (EC, 2014: 2). Transparency International, a globally respected organization, defines corruption as “the abuse of entrusted power for private gain”.³ In this context, corruption can directly negatively affect pre-disaster preparation, disaster response and post-disaster recovery processes. It is not surprising that all three organizations use very similar definitions because corruption is a concept that is seen all over the world and there is almost a consensus on its definition. There are, of course, some divergent definitions. For example, Banerjee et al. (2012) define corruption as “breaking of a rule by a bureaucrat (or an elected official) for private gain”.

Corruption occurs in any organization that provides goods and services or has assets that can be used by employees for their own purposes (Escaleras and Register, 2016: 749). Although corruption is a major problem in itself, what makes it such a deep-rooted problem is that when it becomes the foundation of a broader political and economic system, the cost of not participating in it is so high that it becomes problematic even for individuals and organizations that prefer honesty (Gawronski et al., 2023: 1120).

Corruption has a significant impact on natural disasters, as it does on many other concepts. Countries with high levels of corruption generally suffer more from natural disasters. This is because government corruption could raise death counts through the lack of enforcement of building codes, infrastructure quality, and zoning (Kahn, 2005: 283). Indeed, Escaleras et al. (2007) find that corruption is positively associated with earthquake-related mortality in 75 countries over the period 1975-2003. Similarly, Ambraseys and Bilham (2011) estimate that 83% of all deaths due to collapsed buildings in earthquakes occur in abnormally corrupt countries. This reflects the multiple channels through which corruption determines the losses associated with natural disasters (Çevik and Jalles, 2023: 4):

(i) inadequate infrastructure, poor building codes and unsafe construction; (ii) slow and inefficient emergency response, relief distribution and health services; (iii) disproportionate impact on vulnerable groups of society due to disparities in

³ <https://www.transparency.org/en/what-is-corruption> (Access: 28.02.2025)

disaster preparedness and response and access to information, resources and support; (iv) lack of accountability and transparency in governance.

There are also other studies that further elaborate this relationship. Leeson and Sobel (2008), in their study of disaster relief programmes in the US, find that for every \$100 increase in the aid budget allocated for recovery, the corruption rate increases by 102%. Keefer et al. (2011) found that post-disaster casualties are much higher in countries with low levels of political accountability.

On the other hand, there are some opposing views that argue that natural disasters may not always have negative economic effects. Skidmore and Toya (2002) argue that some disasters can stimulate long-term growth because they can trigger infrastructure reconstruction and institutional reforms. Felbermayr and Gröschl (2014), on the other hand, argue that the negative effects of disasters on growth depend on country characteristics and may not produce significant results in all cases. These studies point out that the disaster-corruption-death triangle may operate in different ways in different country groups.

In conclusion, the general trend in the literature is that corruption increases the lethal effects of natural disasters. This study aims to strengthen the existing findings by re-testing this relationship with a balanced panel data set of 108 countries covering the period 2012-2023.

4. METHODOLOGY

4.1. Model and Variables

In this study, the determinants of the lethal effects of natural disasters occurring in countries are analyzed. In particular, the effect of the level of corruption on the loss of life due to disasters is considered as the main research question. In the study, below-formulated model is established following Çevik and Jalles (2023), Shabnam (2014), Padli et al. (2010), Toya and Skidmore (2007):

$$\text{Model: LnTotalD} = \text{LnGDPpc} + \text{LnGDPpc}^2 + \text{CPI} + \text{Openness} + \text{Urbanization} + \varepsilon$$

This model was analyzed separately for all countries in the panel (ALL) as well as for developed (Ded), developing (Ding) and least developed (Least) countries, making a total of four different analyses. The classification of countries as developed, developing or least developed is based on the United Nations

classification⁴. In the model, LnTotalD is the logarithm of the total number of deaths caused by a natural disaster, LnGDPpc is the logarithm of the country's GDP per capita, CPI is the Corruption Perception Index, Openness is the share of total exports and imports in GDP, and Urbanization is the ratio of urban population to total population. Data of LnTotalD is from The Emergency Events Database (EM-DAT) which is maintained by the Center for Research on the Epidemiology of Disasters (CRED). CPI data is generated by Transparency International and the rest of the data is obtained from World Bank.

Between 1995 and 2012, the Corruption Perception Index (CPI) was measured on a 0-10 scale, with a CPI score of 0 indicating a highly corrupt nation with zero transparency and a score of 10 indicating no perceived corruption with full transparency. In 2012, the index was changed to a 0-100 scale. 100 means that there is no corruption in the country (Gediz Oral, 2023: 30). Since the current version of the variable has been available since 2012, the period of the study was chosen as 2012-2023.

Although the study aimed to use a dataset covering all countries of the world, this objective could not be achieved due to various limitations. In the data provided by EM-DAT, first of all, countries that did not experience natural disasters in half of the 12-year period between 2012 and 2023, i.e. 6 years, were deleted from the data set. The aim here is to remove countries that do not experience natural disasters with sufficient frequency. Then, since Fiji, Solomon Island, Tonga and Vanuatu do not have CPI data, these countries were also removed from the basket. Next, Yemen, Venezuela, Taiwan, South Sudan, North Korea, Cuba, Republic of Congo, Afghanistan and Lebanon were deleted from the group of countries to be analyzed due to missing GDP per capita data. Finally, Lao, Liberia, Malawi, Myanmar, Nigeria and Papua New Guinea were also excluded from the group due to the lack of openness data for these countries and finally a panel was formed with 108 countries. The analysis was conducted using Eviews 12 program.

4.2. Results

An important benefit of Pooled OLS is the ability to control for possibly unobservable individual-specific effects which may be correlated with other included variables in the specification of an economic relationship (Hausman and Taylor, 1981: 1377). This method was preferred since it is the most widely used

⁴https://www.un.org/en/development/desa/policy/wesp/wesp_current/2014wesp_country_classification.pdf (Access: 06.03.2025)

method in model estimation (Güven, 2014: 19). The Pooled OLS results for four different country baskets are presented in Table 1.

Table 3: Pooled OLS results

Variables	ALL		Ded		Ding		Least	
	Coeff	Prob	Coeff	Prob	Coeff	Prob	Coeff	Prob
LnGDPpc	-1.97*	0.00	7.23	0.24	-4.92*	0.00	7.02**	0.01
LnGDPpc ²	0.15*	0.00	-0.22	0.45	0.30*	0.00	-0.45**	0.02
CPI	-0.05*	0.00	-0.14*	0.00	-0.05*	0.00	-0.06*	0.00
Openness	-0.01*	0.00	-0.01*	0.00	-0.01*	0.00	-0.01*	0.00
Urbanization	-0.01*	0.00	0.05*	0.00	-0.02*	0.00	-0.02*	0.00
Constant	12.92	0.00	-41.21	0.19	26.87	0.00	-19.05**	0.04
	*				*			

Notes: * and ** denote 1% and 5% significance levels, respectively. In the regression process, Cross-Section Weights was used as GLS Weights and Ordinary as Coef Covariance Method.

According to the results in Table 3, all variables are statistically significant in the ALL model in which all countries are included. Moreover, the coefficients of per capita income, CPI, Openness and Urbanization variables are negative, which means that increases in these variables will reduce the deaths due to natural disasters. In other words, as countries' per capita income, openness and urbanization increase and corruption decreases, the number of deaths due to natural disasters will decrease. As a result of the analysis for developed countries (Ded), the coefficients of CPI and Openness variables are negative and statistically significant, while the coefficient of Urbanization variable is positive and statistically significant. However, the coefficient of the per capita income variable was found to be statistically insignificant, which means that for developed countries, there is no relationship between the increase in per capita income and natural disaster mortality. In other words, income increases in developed countries do not have an impact on deaths due to natural disasters. The results for developing countries (Ding) are in line with the ALL model. However, in the least developed countries group (Least), per capita income increase is found to increase deaths due to natural disasters. Although the CPI, Openness and Urbanization variables derived similar results to the ALL model, it is surprising that the per capita income variable yielded a result contrary to expectations. The reason for this is that even though their incomes have increased, the least developed countries are still undeveloped countries and therefore they have not become rich enough to choose a natural disaster-resilient lifestyle. In other words, the least developed countries can meet their basic needs more easily with their increased incomes, but they cannot take precautions against natural disasters.

5. CONCLUSIONS AND RECOMMENDATIONS

Nature can be very violent and destructive from time to time. However, in order for natural activities to be called natural disasters, they must have the potential to damage human beings or the physical and non-physical capital produced by humanity. At this point, what is important for countries is the extent to which they can avoid the damaging potential of natural disasters. Because while some countries suffer very little damage from similar natural disasters, others may be subjected to great destruction. Examining the difference between these countries constitutes the main subject of this study.

The extent of damage suffered by countries due to natural disasters is directly proportional to their level of institutional fragility or corruption. The more corrupt a country is, the more vulnerable it is to natural disasters. Considering that the level of corruption is inversely proportional to the level of income, the higher the income level of a country, the less likely it is to be devastated by natural disasters. Indeed, as it is represented in the stylized facts section, the natural disasters that kill the most people generally occur in low- and middle-income countries.

According to the results obtained from the analyses, the coefficients of all variables of per capita income, CPI, Openness and Urbanization are found to be negative and statistically significant in the model including all countries. This result indicates that increases in these variables will reduce the losses in natural disasters. In other words, countries become more resilient to natural disasters as their per capita income, trade openness, urbanization and corruption levels decrease. According to the results of the model of developed countries, increases in per capita income do not have a significant effect. However, the negative and statistically significant results of the CPI and Openness variables as well as the positive and statistically significant result of the Urbanization variable are notable. The results for developing countries are similar to the results of the model including all countries. In the results for least developed countries, the positive and statistically significant result of per capita income is noteworthy.

When all these results are evaluated together, it is possible to reach a common conclusion that countries should reduce their level of corruption and increase their level of trade openness in order to prevent the destructive and lethal effects of natural disasters. It can be said that the greatest impact on reducing the impact of deaths caused by natural disasters comes from the level of corruption in developed countries, from per capita income in developing countries and from the level of corruption in least developed countries. Based on these results, it should be emphasized that, in order to provide more effective protection against natural disasters, developed countries should further reduce their already low corruption levels, developing countries should change their characteristics by

rising to the level of developed countries with the increase in per capita income, and least developed countries should reduce their corruption levels before the increase in per capita income.

In the light of the findings obtained from the study, it is possible to make various policy recommendations. These recommendations can be listed as follows:

1. Fight against corruption should be a priority. Especially in developing and least developed countries, transparency in public procurement, building supervision and management of disaster funds should be increased in order to ensure effective pre-disaster preparations. Corruption is not only a waste of resources but can also lead to fatal consequences in terms of human life.
2. Disaster risk management should be institutionalized. Reforms should be made to increase the capacity of public institutions in pre- and post-disaster processes, especially the supervision authority and resource access of local administrations should be strengthened.
3. Disaster resilience should be improved along with income increase. In least developed countries, increase in per capita income should be supported by infrastructure investments and training programmes to increase disaster resilience.
4. Urban planning and building inspection should be reviewed. In developed countries with dense urbanization, construction policies should be revised according to disaster risk and disaster resilience should be taken as a basis in zoning plans.
5. International Organizations should provide support. Multilateral organizations such as IMF and World Bank should promote transparency-oriented disaster financing models in countries with high disaster risk and weak institutional capacity.

This study examines the impact of countries' levels of corruption on mortality from natural disasters for all countries for which data are available, as well as for developed, developing and least developed countries. Future studies could focus on the effects of different classes of natural disasters (e.g. earthquakes or extreme heat). Studies that will contribute to the literature can be produced by evaluating the issue especially in terms of natural disasters such as earthquakes that have a destructive effect on structures and the legal measures of countries against them.

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Appendix 1: Correlation Matrix between Per Capita GDP and Corruption Index (CPI)

The correlation matrix between per capita income and CPI variables indicating countries' corruption levels is presented below:

Table 4: Correlation between per capita income and CPI

Correlation	CPI	GDPPC
CPI	1.000000	
GDPPC	0.837532	1.000000

The CPI variable is a variable that shows that corruption decreases in a country as it approaches 100. Therefore, an increase in this variable means a decrease in corruption in the country. For this reason, the high correlation obtained between per capita income and CPI (0.83) indicates that there is a positive relationship between these two variables. In other words, as countries' per capita income increases, their corruption levels decrease.

Chapter 2

Nariman Narimanov And the Making of Azerbaijani Political Modernity: Socialism, Nationalism, And Moral Reform in the Turkic World

Elnur Hasan MİKAIL¹, Hakan ÇORA²

Abstract

This chapter explores the intellectual and political legacy of Nariman Narimanov (1870–1925), a central figure in the early formation of Azerbaijani political identity within the Soviet Union. As a revolutionary, writer, and statesman, Narimanov embodied the paradox of national autonomy and socialist universalism. Drawing on both Soviet and post-Soviet historiography, this study situates Narimanov's ideas within broader debates on modernity, nationalism, and the transnational construction of identity in the Turkic world. It argues that his political philosophy represented an early attempt to reconcile Marxist internationalism with Turkic modernism, thereby prefiguring many of the dilemmas faced by post-Soviet republics in their search for political and cultural self-definition. Using a historical-sociological method, the chapter examines the intersections between ideology, diplomacy, and identity in the context of Azerbaijani statehood and foreign relations. The findings suggest that Narimanov's political thought remains a crucial, albeit contested, foundation for understanding the evolution of Azerbaijani nationalism and its resonance across the Turkic republics.

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1. Introduction

The figure of Nariman Narimanov occupies a unique and often controversial place in the intellectual and political history of Azerbaijan. Emerging during a period of intense transformation in the late nineteenth and early twentieth centuries, Narimanov's life and work reflect the complex negotiations between imperial domination, revolutionary ideology, and national awakening (Altstadt, 1992). Born into a period of accelerated modernization and social upheaval in the South Caucasus, he became both a critic of Tsarist colonialism and an advocate of socialist reform. His dual identity—as a committed Marxist and an ardent advocate of Turkic cultural autonomy—made him an emblematic but ambiguous figure within the Soviet political imagination (Swietochowski, 1985).

The intellectual and political evolution of Narimanov cannot be understood apart from the historical geography of the region. The South Caucasus, particularly Baku, was a nexus of empire and capital at the turn of the twentieth century. The oil boom transformed the city into one of the most dynamic industrial centers of the Russian Empire, attracting not only laborers but also intellectuals and revolutionaries from across the Muslim world (Khalid, 2015). Within this environment, Narimanov's thought matured through exposure to Russian revolutionary movements, European Enlightenment ideals, and Islamic reformist discourses. As a result, his vision of political modernity combined the class-conscious rhetoric of socialism with the civilizational aspirations of the Turkic renaissance (Hasanli, 2015).

Narimanov's contribution to Azerbaijani political identity lies in his ability to articulate a model of governance that sought to integrate socialism with indigenous cultural traditions. While many Soviet leaders viewed nationalism as an obstacle to proletarian internationalism, Narimanov perceived it as a necessary component of social development. In his writings and speeches, he argued that the liberation of the East could not occur through the mechanical transplantation of Western socialism but must emerge from the historical and cultural realities of the colonized nations (Suny, 1998). This argument positioned Narimanov as both a revolutionary and a reformist—someone who believed that socialism, if localized, could become a vehicle for emancipation rather than domination.

From a historiographical perspective, Narimanov's legacy has undergone multiple reinterpretations. During the Stalinist period, his emphasis on national autonomy was suppressed as potentially "bourgeois nationalism." However, in the late Soviet and post-Soviet eras, he reemerged as a symbol of anti-imperial resistance and proto-independence (Altstadt, 1992). His thought now occupies a liminal position between Marxist orthodoxy and national self-assertion—a tension that mirrors the broader contradictions of Soviet federalism. By examining

this tension, the present chapter seeks to bridge historical analysis with contemporary political theory, showing how Narimanov's intellectual heritage continues to inform the ideological foundations of modern Azerbaijan and the Turkic world.

This chapter adopts a historical-sociological and interpretive framework, combining archival evidence with secondary analysis to examine Narimanov's writings, policies, and their international reverberations. The purpose is twofold: first, to reconstruct the intellectual trajectory of Narimanov as a thinker who sought to harmonize universal socialism with national identity; and second, to assess the contemporary relevance of his ideas for post-Soviet political transformations. As the Turkic republics navigate the challenges of globalization and regional integration, Narimanov's synthesis of socialism, nationalism, and internationalism offers valuable insights into the possibilities and limits of ideological pluralism (Khalid, 2015; Swietochowski, 1985).

By situating Narimanov within the broader history of decolonization and identity formation in Eurasia, this study aims to contribute to ongoing discussions in international relations and political sociology. It challenges the conventional binary that portrays socialism and nationalism as mutually exclusive, arguing instead that figures like Narimanov illustrate how these ideologies could converge in the pursuit of social justice and cultural self-determination. In this sense, his life and legacy not only illuminate Azerbaijan's complex modernity but also enrich the comparative understanding of nation-building in multiethnic, post-imperial contexts (Suny, 1998).

2. Theoretical Framework

The analysis of Narimanov's intellectual and political legacy requires an interdisciplinary theoretical framework that integrates historical sociology, postcolonial studies, and the theory of nationalism. Narimanov's career as both a revolutionary and a statesman unfolded in a geopolitical environment marked by imperial domination, class struggle, and cultural revival. To understand how his thought shaped Azerbaijani political identity, it is essential to situate it within broader conceptual debates about modernity, coloniality, and national consciousness. This section establishes the conceptual scaffolding for the subsequent analysis by examining four interrelated dimensions: (1) the colonial encounter and subaltern modernity, (2) socialism as a universalist but locally adapted ideology, (3) nationalism as a cultural and political project, and (4) identity formation in multiethnic empires and their successors.

2.1 The Colonial Encounter and Subaltern Modernity

The South Caucasus under Tsarist rule represented a prototypical case of what postcolonial theorists call “subaltern modernity”—a process through which colonized societies internalized, negotiated, and rearticulated the modernizing pressures imposed by imperial powers (Chakrabarty, 2000). Narimanov’s intellectual formation occurred within the contradictions of this colonial condition. Educated in Russian institutions yet steeped in Islamic reformist thought, he embodied what Homi Bhabha (1994) refers to as the “ambivalence of mimicry,” wherein colonial subjects adopt the language of the colonizer to challenge the legitimacy of empire. Narimanov’s early writings, such as his essays in *Hayat* and *Molla Nasreddin*, reveal an attempt to articulate a vision of modernity that could reconcile scientific rationalism with indigenous moral values (Altstadt, 1992).

In this context, his role was comparable to that of other Muslim reformers like Ismail Gasprinski and Ali bey Huseynzade, who sought to cultivate a new intellectual elite capable of translating Western concepts into local idioms (Khalid, 2015). Yet Narimanov differed from many of his contemporaries in his embrace of Marxism as a framework for anti-imperial struggle. While Gasprinski emphasized education and linguistic reform, Narimanov viewed economic and political emancipation as prerequisites for genuine modernization. His version of modernity, therefore, was not merely cultural but structural, aimed at dismantling the exploitative hierarchies of empire. This perspective aligns with Partha Chatterjee’s (1993) argument that colonial nationalism often developed in a “spiritual domain” that sought to reclaim moral sovereignty while contesting material domination.

2.2 Socialism and the Localization of Universal Ideals

Narimanov’s adoption of socialism must be understood as part of a broader attempt to indigenize universalist ideologies within non-Western contexts. The Russian Empire provided a unique environment for such ideological hybridization, as socialist movements coexisted with nationalist and religious discourses. Lenin’s advocacy of the “right of nations to self-determination” resonated deeply with intellectuals in the Muslim periphery who perceived socialism not only as a class-based project but also as a vehicle for anti-colonial liberation (Suny, 1998). Narimanov was among those who interpreted Marxism through the lens of national awakening, arguing that socialism in the East could not be a mere transplantation of European experience but had to evolve from local social and cultural realities (Swietochowski, 1985).

This localization of socialism parallels what later theorists such as Antonio Gramsci (1971) described as the creation of a “national-popular”

consciousness—a synthesis of global revolutionary ideals with local cultural idioms. In Narimanov’s case, this synthesis entailed blending class-based solidarity with the cultural ethos of Turkic identity. He envisaged socialism as a moral and civilizational project rather than a purely economic one, emphasizing education, ethical reform, and the moral rejuvenation of society. In his speeches to Azerbaijani workers and peasants, Narimanov frequently invoked the language of justice (*adalet*) and brotherhood (*kardeşlik*) to frame socialism as an ethical duty rooted in both Islamic and Turkic traditions (Altstadt, 1992; Hasanli, 2015).

2.3 Nationalism as Cultural and Political Project

While socialism provided Narimanov with a framework for class emancipation, nationalism offered a language through which cultural self-determination could be expressed. Benedict Anderson’s (1991) concept of the “imagined community” helps explain how early twentieth-century Azerbaijani intellectuals, including Narimanov, conceptualized the nation as a moral and political entity. The emergence of print culture, newspapers, and schools facilitated the creation of a shared linguistic and historical consciousness that transcended tribal and regional divisions (Khalid, 2015). Narimanov’s writings reveal a belief that national consciousness was not incompatible with socialist internationalism; rather, he argued that socialism could only flourish in societies that had first achieved cultural unity and dignity.

This approach challenges traditional Marxist interpretations that viewed nationalism as a transient stage on the road to classless universalism. Instead, Narimanov articulated a dual model of identity: one that was socialist in structure but national in content. His notion of a “national socialism” predates similar debates that would later emerge in anti-colonial movements across Asia and Africa, where intellectuals sought to reconcile universal ideals with local traditions (Anderson, 1991; Chatterjee, 1993). This theoretical hybridity made Narimanov both an outlier and a visionary—an intellectual who refused to accept the dichotomy between revolution and nationhood.

2.4 Identity Formation in Multiethnic Empires and Post-Imperial States

The question of identity formation in the multiethnic context of the Russian Empire is crucial to understanding Narimanov’s political trajectory. Empires, as Ronald Suny (2001) argues, were not simply repressive apparatuses but also laboratories for new forms of political belonging. The Bolshevik experiment, with its formal commitment to federalism and ethnic autonomy, represented an unprecedented attempt to institutionalize diversity within a socialist framework. Narimanov’s political practice as the leader of the Azerbaijan Soviet Socialist

Republic exemplified the possibilities and contradictions of this model. On one hand, he advocated for the preservation of national culture and the use of the Azerbaijani language in administration and education. On the other, he faced pressure from Moscow to conform to the ideological homogenization of Soviet governance (Altstadt, 1992; Suny, 1998).

This tension illuminates the broader theoretical issue of how identities are negotiated within hierarchical political systems. Stuart Hall's (1996) notion of "articulation" is particularly useful here: identity is not fixed but constructed through the articulation of multiple discourses—class, nation, religion, and empire. Narimanov's political life represents a continuous process of such articulation. He sought to reconcile his loyalty to the revolutionary cause with his commitment to Azerbaijani and Turkic autonomy, even when these commitments appeared contradictory. In doing so, he prefigured the dilemmas of postcolonial leadership in many parts of the world, where the struggle for independence often coexisted with the imperatives of ideological conformity (Suny, 2001; Khalid, 2015).

2.5 Synthesis: Narimanov as a Theorist of Hybrid Modernity

Taken together, these conceptual perspectives position Narimanov as a theorist of what might be called "hybrid modernity." His thought challenges the Eurocentric narrative of modernization as a unilinear process that flows from the West to the rest. Instead, it reveals how non-Western intellectuals actively participated in the global dialogue on modernity by reinterpreting universal ideals through their own historical experiences. Narimanov's synthesis of socialism, nationalism, and moral reform thus anticipates later theoretical developments in postcolonial and decolonial thought, particularly those that emphasize epistemic plurality and the coexistence of multiple modernities (Chakrabarty, 2000).

In this light, Narimanov's intellectual project transcends its immediate historical context. It provides a lens through which to examine contemporary issues of cultural autonomy, globalization, and ideological hybridity in the Turkic world. His belief that political emancipation must be rooted in cultural self-respect remains profoundly relevant to the current discourse on national identity in post-Soviet Eurasia (Hasanli, 2015). By situating Narimanov within this broader theoretical horizon, the chapter establishes a conceptual foundation for the subsequent analysis of his political praxis and its implications for Azerbaijani and Turkic international relations.

3. Literature Review (Scholarly Dialogue)

3.1 The Soviet Nationalities Question and the Azerbaijani Context

Scholarship on Nariman Narimanov is deeply entwined with the broader historiography of the Soviet “nationalities question.” Early Soviet historians framed his political activities within the ideological constraints of Marxism-Leninism, emphasizing loyalty to the revolution rather than his contributions to Azerbaijani nationhood (Martin, 2001). During the Stalinist period, narratives of national autonomy were systematically downplayed in favor of depicting Narimanov as a disciplined party official who advanced the centralization of Soviet power. This portrayal persisted until the late 1980s, when the glasnost era prompted a revision of Soviet historiography and a reassessment of figures who embodied alternative models of socialism. In post-Soviet Azerbaijani scholarship, Narimanov has since been reinterpreted as both a revolutionary and a nationalist—an intellectual who sought to reconcile socialist ideals with the preservation of cultural identity (Hasanli, 2015).

In Western historiography, the complexities of Soviet federalism have been analyzed through comparative frameworks that explore how early Bolshevik leaders managed ethnic diversity across vast imperial territories. Ronald Suny (1998) and Terry Martin (2001) argue that Soviet nationality policy represented an unprecedented experiment in state-led multiculturalism, seeking to balance ethnic self-expression with centralized governance. Within this framework, Narimanov’s advocacy for Azerbaijani language rights and administrative autonomy is understood as part of a broader effort to institutionalize cultural plurality within the socialist project (Altstadt, 1992). However, scholars also note the contradictions of this approach: while officially endorsing national development, the Soviet system ultimately curtailed genuine self-determination through ideological control and economic dependency. This duality forms the backdrop against which Narimanov’s political legacy continues to be debated.

3.2 Soviet Orientalism and the “Muslim Question”

The academic dialogue surrounding Narimanov also intersects with the field of Soviet Orientalism, which examines how Marxist universalism was adapted—or distorted—in the governance of Muslim-majority regions. Adeeb Khalid (2015) and Douglas Northrop (2004) have shown that Soviet modernity in Central Asia and the Caucasus was constructed through an ambivalent relationship with the East: reforming local societies while simultaneously “civilizing” them according to European standards. In this context, Narimanov’s intellectual project represents a counter-discourse to Orientalist paternalism. By insisting that Eastern nations possessed their own modernizing potential, he inverted the traditional

center-periphery hierarchy and envisioned the East as a site of ideological innovation rather than passive imitation (Altstadt, 1992; Swietochowski, 1985).

Scholars have also debated the extent to which Narimanov's socialism was shaped by Islamic modernism. Hélène Carrère d'Encausse (1979) viewed his ideological synthesis as an early experiment in the "Muslim adaptation of Marxism," while more recent researchers have argued that his engagement with Islamic ethics was less theological than civilizational (Khalid, 2015). This perspective resonates with Cemil Aydın's (2007) analysis of pan-Islamism as a modern political language rather than a purely religious movement. Narimanov's thought can thus be seen as part of a transregional intellectual current that sought to fuse moral renewal with socio-economic reform—an endeavor that complicates binary distinctions between secularism and religiosity in early twentieth-century Muslim societies.

3.3 National Identity, Cultural Renaissance, and Print Modernity

A significant body of scholarship emphasizes the role of print culture, education, and language reform in shaping Azerbaijani national identity during Narimanov's lifetime. Edward Swietochowski's (1985) *Russian Azerbaijan, 1905–1920* remains a foundational study for understanding the emergence of modern Azerbaijani nationalism. He demonstrates how intellectuals like Narimanov, Huseynzade, and Rasulzade mobilized print media to articulate a collective identity grounded in linguistic and historical consciousness. Audrey Altstadt (1992) expanded this analysis by tracing how cultural elites used education as a vehicle for both social reform and political mobilization. Her work situates Narimanov within a generation of intellectuals who saw enlightenment (*maarif*) as the foundation of nationhood.

The intersection of education and ideology remains a key theme in recent Azerbaijani and Turkish scholarship. For instance, Murad (2016) and Hasanli (2015) argue that Narimanov's educational reforms in Baku's schools and teacher institutes represented an early form of "cultural policy" aimed at integrating modern sciences with moral instruction. These efforts parallel similar reforms among Tatar and Uzbek intellectuals of the *Jadid* movement, highlighting the transregional character of Muslim modernization in the Russian Empire (Khalid, 2015). By emphasizing education and literacy, Narimanov's program contributed to what Benedict Anderson (1991) would later describe as the formation of an "imagined community"—a political and cultural space united by shared discourse and aspiration.

3.4 Reassessing Narimanov's Political Legacy in Post-Soviet Historiography

Post-Soviet historiography has generated renewed interest in Narimanov's political career, focusing on his role as a mediator between Moscow and Baku during the formative years of the Azerbaijan Soviet Socialist Republic. Jamil Hasanli (2015) offers one of the most comprehensive analyses of Narimanov's diplomatic and ideological balancing act, emphasizing his efforts to defend Azerbaijani sovereignty within the constraints of the Soviet system. Hasanli's archival research reveals how Narimanov resisted attempts by the central government to subsume Azerbaijani institutions under Russian administrative control, arguing that true socialism required respect for cultural diversity.

Other scholars, such as Adeeb Khalid (2015) and Ronald Suny (2001), situate Narimanov's legacy within the comparative context of national communism in the early USSR. They note parallels between his policies and those of other regional leaders—such as Sultan-Galiev in Tatarstan and Faizullah Khojaev in Uzbekistan—who sought to adapt socialism to local conditions. Yet, unlike these figures, Narimanov maintained a relatively cautious approach, seeking reform through negotiation rather than confrontation. His pragmatism, often criticized as indecisiveness, has been reevaluated as a form of political realism that prioritized institutional survival over ideological purity (Altstadt, 1992; Swietochowski, 1985).

Azerbaijani historians have increasingly linked Narimanov's legacy to contemporary debates about sovereignty, secularism, and integration in the Turkic world. In this discourse, Narimanov is presented as a precursor to modern Eurasian cooperation frameworks, such as the Organization of Turkic States (Purtaş, 2023). His commitment to cultural solidarity among Turkic nations resonates with today's initiatives to strengthen academic and political collaboration across the region. This reinterpretation underscores the continuing relevance of his vision of "socialism with a national face" as an ideological bridge between East and West.

3.5 Theoretical Engagements and Gaps in the Literature

Despite growing scholarly attention, significant gaps remain in the literature on Narimanov's intellectual legacy. Most analyses focus either on his administrative role or on his place within Soviet nationality policy, often overlooking his contributions to political theory. Few studies have examined how his synthesis of socialism, nationalism, and cultural reform anticipated later debates on multiple modernities and postcolonial identity (Chakrabarty, 2000). Moreover, the Western-centric frameworks of modernization theory have tended to marginalize the

agency of non-European thinkers like Narimanov, relegating them to peripheral status in global intellectual history (Bhambra, 2007).

Recent works in global intellectual history, however, offer promising frameworks for recontextualizing Narimanov's thought. Sebastian Conrad (2016) and Cemil Aydın (2007) have called for a decentering of global modernity studies to include voices from the colonial and semi-colonial world. By applying these approaches, scholars can better appreciate how figures such as Narimanov contributed to shaping transnational discourses of justice, sovereignty, and moral renewal. Integrating these perspectives would not only enrich Azerbaijani studies but also expand the comparative field of political modernity beyond its Eurocentric confines.

4. Analysis and Discussion

4.1 The Synthesis of Socialist Internationalism and National Autonomy

Nariman Narimanov's political philosophy cannot be understood without recognizing his persistent effort to balance the universalist ideals of socialism with the particular demands of national self-determination. His writings and speeches repeatedly underscored that the emancipation of the East could not be achieved through the mechanical adoption of Western socialist doctrines, but through their adaptation to the social, cultural, and historical conditions of colonized nations (Swietochowski, 1985). In this regard, Narimanov anticipated what modern scholars of political theory have described as "vernacular socialism"—an ideological synthesis that localized global ideas in order to serve specific anti-imperial contexts (Chatterjee, 1993).

The early years of the Azerbaijan Soviet Socialist Republic (1920–1925) provided the testing ground for this synthesis. As the head of the government, Narimanov championed policies that promoted the use of the Azerbaijani language in administration and education while affirming the republic's loyalty to the internationalist goals of the Soviet Union (Altstadt, 1992). His vision was rooted in the conviction that socialism should empower, not erase, the cultural autonomy of national communities. He believed that the socialist transformation of the East would succeed only if it respected the moral traditions, linguistic diversity, and social structures of the people it sought to liberate (Hasanli, 2015).

This balancing act mirrored Lenin's theory of the national question, yet Narimanov applied it with far greater sensitivity to the colonial context of Muslim-majority societies. Unlike many Bolshevik officials who perceived national identity as a temporary stage in the evolution toward proletarian consciousness, Narimanov viewed it as a permanent component of human solidarity. His

argument—that internationalism without cultural recognition would reproduce imperial hierarchies—remains one of his most forward-looking insights (Suny, 1998).

4.2 State-Building and Political Reform in Early Soviet Azerbaijan

Narimanov's tenure as leader of the Azerbaijan SSR represented a unique experiment in reconciling national governance with socialist centralization. Upon assuming power in 1920, he faced a dual challenge: consolidating revolutionary authority while preserving the legitimacy of Azerbaijani self-rule. His administration undertook ambitious reforms in education, land redistribution, and industrial organization, often in cooperation with Moscow but sometimes in open tension with it (Hasanli, 2015).

One of Narimanov's key achievements was the establishment of Azerbaijani as an official language of state administration. This policy—considered radical in the early Soviet context—was motivated by both practical and ideological considerations. Linguistic empowerment was essential to democratizing governance and dismantling the elitist dominance of Russian-speaking bureaucrats (Altstadt, 1992). His advocacy for vernacular education and local governance structures prefigured the *korenizatsiya* (“indigenization”) policy later institutionalized across the USSR during the 1920s (Martin, 2001).

However, Narimanov's efforts were constrained by growing centralization in Moscow. The Bolshevik leadership's suspicion of “local nationalism” translated into administrative purges and ideological surveillance. In 1922, Narimanov's calls for greater fiscal and political autonomy were met with accusations of deviation from party orthodoxy (Suny, 1998). His subsequent marginalization from the central government revealed the inherent contradictions within Soviet federalism: while formally recognizing national republics, the system remained highly centralized in practice. Yet, as scholars like Terry Martin (2001) have observed, the very articulation of these contradictions contributed to shaping the institutional architecture of Soviet governance, which continued to oscillate between decentralization and control for decades.

4.3 Educational and Cultural Policies as Instruments of Nation-Building

Education occupied a central place in Narimanov's vision of social transformation. His earlier career as a teacher and physician profoundly influenced his belief that knowledge was the foundation of both personal and national emancipation (Swietochowski, 1985). Under his leadership, the Azerbaijan SSR expanded its public education system, established teacher training institutes, and introduced secular curricula emphasizing science, technology, and moral

philosophy. These reforms echoed the *Jadid* movement's pedagogical emphasis on rationality and ethical discipline, while embedding them within the socialist framework of collective advancement (Khalid, 2015).

Narimanov also recognized the symbolic power of literature and media in constructing national consciousness. He supported the publication of Azerbaijani-language newspapers and literary journals that promoted cultural pride and social responsibility. In this sense, his policies represented a continuation of the pre-Soviet enlightenment (*maarifçilik*) movement, yet they acquired new political meaning under socialism (Altstadt, 1992). As Benedict Anderson (1991) has argued, print culture serves as a medium through which communities imagine themselves as nations. Narimanov understood this dynamic intuitively and used it to foster an inclusive sense of citizenship that transcended class divisions without erasing cultural difference.

However, his cultural policies also exposed him to criticism from both Moscow and conservative local elites. While central authorities accused him of “cultural nationalism,” traditionalists opposed the secularization of education and the perceived erosion of religious authority (Hasanli, 2015). These conflicts illustrate the multidimensional pressures faced by reformist leaders operating within imperial and ideological hierarchies. They also underscore Narimanov's enduring significance as a figure who sought to mediate between the demands of modernization and the preservation of moral integrity.

4.4 The Diplomatic Dimension: Narimanov's Internationalism and the “Eastern Question”

Beyond domestic policy, Narimanov's engagement with international affairs reveals his ambition to redefine the geopolitical role of the East within the global socialist movement. As the head of the Azerbaijan SSR, he played an active role in organizing the 1920 Baku Congress of the Peoples of the East—a landmark event that brought together revolutionaries and intellectuals from across Asia and the Middle East (Carrère d'Encausse, 1979). His speeches at the congress emphasized solidarity among colonized nations and called for a “moral alliance” between the socialist revolution and the anti-imperial struggle.

Narimanov's foreign policy vision combined pragmatic diplomacy with ideological commitment. He saw Azerbaijan as a bridge between the Soviet Union and the Muslim world—a cultural and political intermediary that could export socialist ideals without alienating traditional societies (Hasanli, 2015). This diplomatic strategy mirrored his domestic emphasis on synthesis rather than confrontation. By promoting dialogue rather than coercion, he sought to legitimize

the Soviet project in the eyes of Asian and Middle Eastern nations skeptical of Moscow's intentions.

His internationalism anticipated later theories of the “Global South” as a site of alternative modernities. As Dipesh Chakrabarty (2000) argues, non-Western intellectuals often reframed global ideologies to reflect their local struggles against domination. Narimanov's insistence on the moral and cultural agency of the East prefigured such postcolonial critiques of Western universalism. In this sense, his contribution to international political thought extends beyond Soviet history; it represents an early articulation of a genuinely pluriversal worldview—one that recognizes the diversity of paths toward modernity and justice.

4.5 Contradictions and Tragedy: The Fall of a Revolutionary Idealist

Despite his achievements, Narimanov's political career ended in disillusionment. His calls for moral reform and national dignity increasingly clashed with the authoritarian consolidation of the Soviet regime under Stalin. In 1925, shortly before his death, Narimanov was effectively sidelined from political life, his writings censored, and his allies marginalized (Altstadt, 1992). The official narrative recast him as a loyal functionary while erasing the more subversive aspects of his thought. His advocacy of cultural autonomy and his critiques of bureaucratic corruption were deemed incompatible with the new orthodoxy of centralized socialism (Suny, 1998).

The posthumous reinterpretation of Narimanov's legacy reflects the broader pattern of revolutionary idealism betrayed by the very structures it helped create. As Ronald Suny (2001) observes, the Bolshevik project's strength—its capacity to mobilize diverse peoples under a universal vision—was also its weakness, as it left little room for ideological pluralism. Narimanov's fate symbolizes this paradox. His hybrid ideology, which sought to integrate socialism, morality, and cultural identity, proved too nuanced for a political system increasingly intolerant of ambiguity.

Nevertheless, his ideas endured in cultural memory. During the Khrushchev Thaw and later in the perestroika period, Narimanov was rediscovered as a precursor to “socialism with a human face” (Hasanli, 2015). His emphasis on ethics, education, and moral governance resonated with reformers seeking to humanize Soviet socialism. In post-Soviet Azerbaijan, his image has been revived as both a national hero and a cautionary figure—a reminder of the dangers of ideological rigidity and the enduring need for balance between power and principle.

4.6 Narimanov's Relevance to the Contemporary Turkic World

In the twenty-first century, Narimanov's intellectual legacy continues to inform discussions of cultural diplomacy and regional integration among Turkic republics. His vision of moral internationalism finds new resonance in initiatives such as the Organization of Turkic States, which seek to balance cultural unity with political diversity (Purtaş, 2023). While the ideological context has shifted from socialism to soft power and economic cooperation, the underlying challenge—reconciling local identity with transnational solidarity—remains remarkably similar.

Narimanov's life offers an instructive case study for understanding the role of intellectuals in nation-building processes that transcend state boundaries. His belief in the transformative power of culture and education aligns with contemporary efforts to foster academic collaboration, cultural exchange, and shared heritage across the Turkic world (Khalid, 2015). In this sense, he stands not only as a historical figure but also as a conceptual bridge between the socialist internationalism of the past and the cultural diplomacy of the present.

5. Findings and Implications

The analysis of Narimanov's political thought reveals that his intellectual project anticipated several key debates in contemporary political and post-colonial theory. First, Narimanov's vision demonstrates that modernity in non-Western societies was never a passive importation of European ideas but a negotiated process of translation and adaptation. His attempt to localize socialism within Azerbaijani and broader Turkic cultural frameworks represents one of the earliest articulations of what later scholarship has termed *multiple modernities* (Eisenstadt, 2000). By integrating Enlightenment rationality, Islamic moral philosophy, and Marxist social analysis, Narimanov developed a model of reform that sought to humanize modernization without erasing tradition (Altstadt, 1992).

Second, Narimanov's career underscores the structural tension between ideology and governance in multiethnic socialist states. His experiment with cultural autonomy within a centralized political system prefigured the paradox of Soviet federalism—the coexistence of formal national sovereignty with practical subordination to Moscow (Suny, 1998; Martin, 2001). The findings indicate that Narimanov's pragmatic balancing of loyalty and dissent allowed Azerbaijan to preserve a degree of institutional continuity even during intense political transformation. This experience provides a valuable case for understanding how intellectual mediation can sustain political stability in transitional societies.

Third, Narimanov's emphasis on education and moral governance highlights the ethical dimension of political leadership in the early twentieth-century

Muslim world. His conviction that political reform required moral renewal anticipated modern theories of civic virtue and ethical statecraft (Khalid, 2015). By promoting literacy, science, and cultural pride, he fostered the foundations of civic nationalism that continue to shape Azerbaijani identity today. The data drawn from archival records and secondary sources confirm that Narimanov's cultural policies were instrumental in consolidating a shared sense of national purpose during the fragile post-revolutionary period (Hasanli, 2015).

Fourth, the study demonstrates that Narimanov's internationalism was not an abstract ideological commitment but a concrete strategy of cultural diplomacy. His participation in the 1920 Baku Congress and his advocacy for solidarity among colonized nations reveal a geopolitical vision that positioned Azerbaijan as a moral intermediary between Europe and the East (Carrère d'Encausse, 1979). This conception of diplomacy as dialogue rather than domination foreshadowed contemporary ideas of soft power and intercultural communication. In modern Eurasia, where regional organizations such as the Organization of Turkic States operate on principles of shared heritage and mutual respect, Narimanov's model retains significant heuristic value (Purtaş, 2023).

Finally, the findings underscore the enduring ambivalence of Narimanov's legacy. His death in 1925 and subsequent marginalization illustrate how revolutionary ideals can be suppressed by the bureaucratic systems they help to create. Yet the later rehabilitation of his image during perestroika and in independent Azerbaijan attests to the resilience of his intellectual contribution. The persistence of his ideas in public discourse confirms that hybrid political visions—those combining universal ideals with cultural specificity—possess greater longevity than rigid ideological constructs (Suny, 2001).

6. Conclusion

The study of Nariman Narimanov's life and thought offers a window into the broader dynamics of identity formation, modernization, and political ethics in the twentieth-century Turkic world. It demonstrates that the historical experience of Azerbaijan cannot be fully understood without engaging the moral and intellectual struggles of figures like Narimanov, who sought to reconcile seemingly incompatible ideals: socialism and nationalism, revolution and reform, globalism and locality (Swietochowski, 1985). His synthesis of these forces transformed Azerbaijani political identity from a reactive nationalism into a constructive philosophy of self-determination grounded in education, ethics, and cultural dignity (Altstadt, 1992).

From a theoretical perspective, Narimanov's legacy bridges three academic domains—postcolonial studies, nationalism theory, and the sociology of

modernity. His life substantiates the argument that modernization in colonized societies evolved through dialectical interaction rather than linear diffusion (Chakrabarty, 2000). In rejecting both Western hegemony and parochial isolationism, he articulated a vision of moral universalism that continues to inspire intellectual discourse across Eurasia. The historical evidence suggests that Narimanov's policies in education, language, and governance generated a durable institutional memory that still informs Azerbaijan's developmental trajectory (Hasanli, 2015).

In the context of contemporary international relations, Narimanov's philosophy prefigures the cultural diplomacy strategies now practiced within the Organization of Turkic States. His insistence on cooperation among Turkic nations as a moral rather than purely strategic enterprise aligns with the twenty-first-century paradigm of "normative regionalism" (Purtaş, 2023). Establishing specialized institutions such as *Turkish World Research Centers* within leading universities would embody Narimanov's conviction that intellectual exchange is the cornerstone of political unity. Managed by competent scholars and supported through cross-republic collaborations, such centers could serve as modern extensions of Narimanov's dream of an enlightened and cooperative East.

Ultimately, Narimanov's legacy challenges scholars and policymakers alike to reconsider the meaning of progress. His life reminds us that modernization without morality, and ideology without empathy, lead to estrangement rather than emancipation. The enduring relevance of his ideas lies in their capacity to humanize politics—to place education, justice, and dignity at the heart of governance. In this sense, Narimanov was not merely a statesman of his era but a visionary whose intellectual courage transcends time and ideology. His message resonates powerfully today: that cultural self-respect and international solidarity are not opposing values but twin foundations of a humane global order.

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International Database Review of Studies Using Multi-Criteria Decision-Making Methods in the Health Sector: Science Direct Scan

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Abstract

Health and healthcare services are critically important for the public and are also significant indicators of a society's level of development. In recent years, the use of Multi-Criteria Decision Making techniques has become widespread in all fields. Especially in the healthcare sector, where decisions made by decision-makers have very sensitive consequences, this is taken into consideration in the studies conducted in this field. MCDM methods, which are of great importance in terms of evidence-based approaches, have become important today. In this study, the healthcare sector was examined as an application area. The aim of the study is to examine in detail the studies in which MCDM methods are applied in the field of health and healthcare services, to scan the international literature in a wide period, to examine the studies conducted between 2000-2025 in the Science Direct database in a quarter-century time frame, and to present the studies in this field for the benefit of researchers. In this study, a systematic literature review was conducted on studies in the literature in which MCDM methods were used in the field of health. The literature review on the international database ScienceDirect was carried out using the keywords “Multicriteria decision making” (AND) “health”, “healthcare”, “healthsector”, “healthfield”, “medical”, “healthsystem”. Accordingly, a total of 48 open-access studies were examined in the literature review conducted between 2000-2025 on studies in which MCDM methods were used in the field of health. Within the limitations of the study, non-open access articles were excluded from the study. As a result of the study, it was determined that the most used method was AHP, and it was also determined that there were studies in which PROMETHEE, TOPSIS, WASPAS and ELECTRE methods were used.

Keywords: Healthcare Sector, Healthcare Services, Multi-Criteria Decision Making, Literature Review.

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Sağlık Sektöründe Çok Kriterli Karar Verme Yöntemlerinin Kullanıldığı Çalışmaların Uluslararası Veri Tabanı İncelemesi: Science Direct Taraması

Öz

Sağlık ve sağlık alanında yürütülen hizmetler kamu açısından kritik öneme sahip olmakla birlikte toplumun gelişmişlik düzeyi için de önemli ve olmazsa olmaz göstergelerinden biridir. Son yıllarda Çok Kriterli Karar Verme tekniklerinin tüm alanlarda çok sık kullanıldığı görülmektedir. Özellikle sağlık sektöründe karar vericilerin aldığı kararların çok hassas sonuçları olması, bu alana yönelik yapılan çalışmaların da göz önünde olmasına neden olmaktadır. Kanıta dayalı yaklaşım açısından büyük önem taşıyan ÇKKV yöntemleri günümüzde önemli hale gelmiştir. Bu çalışmada uygulama alanı olarak sağlık sektörü incelemeye alınmıştır. Çalışmanın amacı; sağlık ve sağlık hizmetleri alanında ÇKKV yöntemlerinin uygulamasının yapıldığı çalışmaları ayrıntılı olarak incelemek, uluslararası literatürü geniş bir periyotta taramak, Science Direct veri tabanında yer alan 2000-2025 yılları arasında yapılmış çalışmaları çeyrek asırlık bir zaman diliminde incelemek ve bu alanda yapılan çalışmaları ortaya çıkararak araştırmacıların istifadesine sunmaktır. Bu çalışmada, literatürde yer alan sağlık alanında ÇKKV yöntemlerinin kullanıldığı çalışmalara yönelik sistematik bir literatür taraması yapılmıştır. Bu doğrultuda, sağlık alanında ÇKKV yöntemlerinin kullanıldığı çalışmalara yönelik 2000-2025 yılları arasında yapılan literatür taramasında açık erişimli olan toplam 48 adet çalışma incelenmiştir. Literatür taraması uluslararası veri tabanı ScienceDirect üzerinde “Multicriteria decision making” (AND) “health”, “healthcare”, “health sector”, “health field”, “medical”, “health system” anahtar kelimeleri kullanılarak yapılmıştır. Çalışmanın sınırlılıkları kapsamında açık erişimli olmayan makaleler çalışmanın dışında tutulmuştur. Çalışma sonucunda; en çok kullanılan yöntemin AHP olduğu belirlenmiş, PROMETHEE, TOPSIS, WASPAS ve ELECTRE kullanılan çalışmaların da olduğu tespit edilmiştir.

Anahtar Kelimeler: Sağlık Sektörü, Sağlık Hizmetleri, ÇKKV, Literatür Araştırması.

Introduction

With the advancement of technology, the healthcare sector has also developed rapidly. As a sector where technology is used most intensively, healthcare also has high investment costs. Therefore, decisions made in healthcare are of critical importance. At this stage, scientific decision-making is very important. Otherwise, a non-scientific decision can lead to patient and healthcare worker dissatisfaction, higher costs, and even patient loss. These types of problems are solved with Multi-Criteria Decision-Making (MCDM) techniques, which are a part of quantitative decision-making methods. MCDM is a tool that helps to solve and analyze complex, real-world problems through its unique ability to evaluate different alternatives based on various criteria for the optimal selection of the best alternative. When used in the decision-making process, multi-criteria decision-making methods can make significant contributions to making rational decisions. These methods can make the decision-making process more systematic, analytical, and objective by considering complex and various factors (Özden, 2009). The true purpose of the decision-making process is to provide decision-makers with the ability to look to the future and make the best possible decision based on past, present, and future information and predictions. MCDM methods are a common title for various analytical techniques used to support decision-making in the context of conflicting multiple criteria. These techniques allow decision-makers to reach a consensus on which evaluation criteria are relevant, the importance attributed to each, and how to use this information to evaluate alternatives. This way, the consistency, transparency, and legitimacy of decisions can be increased (Marsh, Goetghebeur, Thokala, & Baltussen, 2017). MCDM methods are widely used in both public and private sector decisions in various fields and sectors such as transportation, education, environment, energy, and defense. In recent years, MCDM methods have been used more frequently in decision-making processes related to healthcare services (Diaby, Campbell, & Goeree, 2013). The application of MCDM in the healthcare sector has been relatively slower compared to other sectors. However, with more researchers and practitioners in the healthcare field becoming aware of these techniques, a significant increase in their use in healthcare applications has been observed (Marsh, Lanitis, Neasham, Orfanos, & Caro, 2014). Research on new methods to support decision-making processes in healthcare is cited as a justification for the widespread adoption and rise of MCDM methods in this sector. Despite this, some researchers insist that more research is needed to evaluate the effectiveness of MCDM in healthcare-related decision-making. There are numerous examples of the exploratory use of a specific MCDM tool in various decision contexts, and these methods demonstrate that the use of MCDM

is possible in the healthcare field. Studies conducted in the healthcare sector have found that MCDM methods are used in topics such as financial sustainability, evaluating health tourism performance, quality assessment in hospitals, medical waste management, facility location selection, and hospital information system management. While interest in the role of MCDM methods in healthcare is increasing, there can be significant differences in their application. This is because MCDM methods have different underlying assumptions. Therefore, it is stated that more research is needed to select appropriate MCDM methods for use in healthcare services and to develop local guidelines in jurisdictions (Diaby, Campbell, & Goeree, 2013). The aim of this study is to introduce the MCDM methods used in the healthcare sector to both newcomers to these methods and to researchers, decision-makers, and policymakers working in the healthcare field, and to inform them about the methods and example applications. A systematic literature review was conducted in this study. The foreign language literature on the subject, published in the ScienceDirect international database over a 25-year period, was examined in depth to shed light on it and to provide a broader perspective, differing from the domestic literature. Different literature reviews on studies using MCDM methods in the healthcare field exist. The studies obtained on this topic as a result of the research are provided below.

In their study, Chakraborty et al. (Chakraborty, Raut, Rofin, & Chakraborty, 2023) searched the SCOPUS database for the phrase 'multicriteria making decision in healthcare' in titles, abstracts, and keywords. The review, based on the period from 2012 to 2023, focused exclusively on articles, excluding book chapters, books, conference proceedings, and conference reviews. The study was written as a table-based literature review, and the table included the authors, multi-criteria decision-making methods, objectives, and research outcomes.

In their study, Frazão et al. (Frazão, Camilo, Cabral, & Souza, 2018) conducted a literature review on multi-criteria decision-making in the healthcare sector using the SCOPUS and PUBMED databases, without language or year limitations. They included only articles in their study. Using a table-based literature review method, they examined 8 different characteristics of the articles reviewed: author, journal, country, type of intervention, type of problem, problem definition, criteria definition, and MCDM method.

Ağaç and Baki (Ağaç & Baki, 2016) conducted a literature review on articles published between 2010 and 2014, using the keywords (AHP OR ANP OR TOPSIS OR VIKOR OR ELECTRE OR DEMATEL OR PROMETHEE OR "Analytic Hierarchy Process" OR "Analytic Network Process") AND (Medical OR Health*) in the Emerald, EBSCO, Science Direct, Scopus, and Taylor &

Francis databases. They used a table-based format, classifying the articles by author, topic, and method used.

Salazar et al. (Gongora-Salazar, Rocks, Fahr, Rivero-Arias, & Tsiachristas, 2023) examined studies containing multi-criteria decision-making methods in the healthcare field between 2013 and 2020 using the Embase, MEDLINE, and Google Scholar databases. They also included studies from the gray literature (Trip Medical Database and Google) between 1990 and 2020.

Mutlu et al. (Mutlu, Tuzkaya, & Sennaroğlu, 2017) conducted a literature review on studies published between 2006 and 2016, searching the SCOPUS, Science Direct, Taylor&Francis, Ebsco, Web of Knowledge, and Google Scholar databases with the keywords ("multi-criteria" and "healthcare service quality"), ("fuzzy" and "multi-criteria" and "healthcare service quality"), ("hospital service quality" and "multi-criteria decision-making"), and ("SERVQUAL" and "multicriteria" and "healthcare").

The study by Yılmaz et al. (Yılmaz, Tozan, & Karadayı, 2020) provides a literature review on MCDM methods in decision-making processes in the military healthcare field. They used the PubMed, Springer, Science Direct, and Google Scholar databases to separately collect articles that used MCDM methods in the healthcare and military fields. The distinguishing features of this study, when compared to other similar works, lie in several key areas. First, it exclusively examines the ScienceDirect database. Second, it covers a comprehensive 25-year period for its literature review, offering a much broader historical perspective. Third, the search was conducted using a specific and focused set of keywords: ("MCDA" and "Health"), ("MCDA" and "Healthcare"), ("MCDA" and "HealthSystem"), ("MCDA" and "HealthSector"), ("MCDA" and "HealthField") and ("MCDA" and "Medical"). Finally, the study's scope was limited to only open-access research articles. The findings are presented in a detailed, table-based literature review that categorizes each included study by six distinct components: authors, country, journal, method used, aim, and findings. This structured approach provides a clear and organized overview of the landscape of MCDM applications in healthcare.

Multi-Criteria Decision Making

Multi-Criteria Decision Making (MCDM) methods reach the best compromise solution by examining available alternatives according to deterministic criteria values. As a result of MCDM methods, the Decision Maker (DM) can rank, group, or select from the available alternatives. Research on MCDM methods has become widespread in the literature, especially in

recent years. In recent years, numerous decision-making methods have been developed that can be used to select the best alternative according to the determined criteria. Each of these methods has its own unique characteristics. These methods are classified differently according to different characteristics. A wide variety of fields can be cited as application areas for the methods. These include project evaluation, location selection, personnel selection in human resources, product and service selection, and hospital quality performance selection (Briggs & Mareschal, 1990). In MCDM problems, DMs make decisions according to the decision variable and the alternative set. Options to be selected, ranked, or classified for DMs are called alternatives. The attributes by which these alternatives are evaluated are called decision variables or criteria. The alternatives that DMs will rank, classify, or select from have multiple and conflicting criterion values. The MCDM approach is generally referred to as Multi-Criteria Decision Making (MCDM) by American researchers and Multi-Criteria Decision Aid (MCDA) by European researchers, and it aims to perform an objective classification within a sample set by considering more than one criterion. The MCDM approach was initially used in the fields of operations research and decision theory in the 1970s and was later applied to economic and financial fields (Gregory, 1998). MCDM, or Multiple-Criteria Decision Making, is a widely used discipline belonging to operations research. There are numerous definitions of MCDM in the literature. A few of these are given below. MCDM has the ability to integrate multiple alternatives and criteria to achieve a solution. MCDM is a set of methods that analyzes the advantages and disadvantages of alternatives based on a large number of criteria (Özdamar, 2004).

MCDM refers to the selection process made by a decision-maker using at least two criteria from a set of alternatives containing a finite number of alternatives (Habenicht, Scheubrein, & Scheubrein, 2002). MCDM methods are methods that provide solutions to decision problems with multiple criteria (Özden, 2009). MCDM is one of the quantitative methods developed by researchers to assist in the decision-making process and to provide faster and easier solutions to decision problems (Güngör, 2007). It is the process of making a selection from a finite set of alternatives by considering more than one criterion (Ersöz & Kabak, 2010). When decision-makers encounter a problem, their first task should be to define it. The stage of determining the appropriate method for the defined problem is the most critical. Multi-criteria decision-making methods are categorized into three types: selection, classification, and ranking methods. Selection problems involve choosing the single best alternative from a set. In classification problems, alternatives are sorted into predefined classes based on specific criteria

or preferences. For ranking problems, alternatives are arranged in a measurable or definable order from best to worst (Ekin, 2020).

Literature

Table1: Literature Review about MCDM

Author(s) and year	Journal	Method(s)	Objective	Finding
(Amenu et.al., 2024)	Preventive Veterinary Medicine	Qualitative assessment was made on the views of selected animal health experts on disease prioritization methods, resource allocation and use of decision-support tools	The aim of this study was to examine the views of animal health experts on disease prioritization, resource allocation and decision support tools using multi- criteria decision analysis. techniques for prioritization tools.	It has been determined that existing prioritization tools are neither comprehensive nor objective, and there is a lack of quality data.
(Serrano- Guerrero, Bani- Doumi, Romero, & Olivas, 2024)	Expert Systems With Applications	A 2-tuple fuzzy linguistic model	Its purpose is to evaluate the quality of health systems using subjectivevariableslo btained through Internet tools.	It has been determined that the method based on intuitionistic and interval- valued Pythagorean fuzzy setsperforms better than other approaches.
(Ritrovato, Faggiano, Tedesco, & Derrico, 2015)	Value In Health	AHP, doHTA	The purpose of study is to develop a standardized and multi-criteria evaluation method to support decision- making in healthcare technologies.	It was observed that the developed method improved decision-making processes by providing decision-makers with faster and more meaningful information.
(Sculpher, Claxton, & Pearson, 2017)	Value In Health	Quantifying Benefits and Opportunity Costs	This study aimed to develop a new analytical framework that more accuratelyassesses the value of health technologies and opportunity costs compared to value analyses and MCDA methods.	The new method has enabled a more accurate and comprehensive assessment of the value and opportunitycosts of health Technologies.

(Wildman & Wildman, 2019)	Value In Health	the evaluation of complex interventions, with a particular focus on social prescribing interventions.	This study aims To evaluate the total value of complex health interventions more accurately using cost-benefit analyses integrated with (MCDA) and preference-based assessments.	The new methods have provided more appropriate decisions by better reflecting multiple outcomes and stakeholders' values.
(Brixner, Maniadakis, Kalo, Hu, Shen, & Wijaya, 2017)	Value In Health Regional Issues	Simple MCDA Scoring	The purpose of this study is to enable more scientific and comprehensive evaluation of off-patent drugs in developing countries through multi-criteria decision analysis.	It has been determined that the multi-criteria evaluation of the drug with the developed MCDA method provides decision-makers with more consistent options.
(Zewdie & Yeshanew, 2023)	Environmental and Sustainability Indicators	AHP	The purpose of study is the task of selecting an appropriate waste disposal site, which is complex due to multiple factors, will be addressed using MCDM methods.	It has been stated that selecting the correct waste disposal site is crucial to reduce the negative impacts of the waste management system on human health and the environment.
(Dolui & Sarkar, 2021)	Environmental Challenges	AHP, FAHP, SRS, WRS and WASPAS	This study aimed To find a solution to the waste management problem in cities, it is necessary to determine economically and environmentally suitable waste disposal sites using GIS and MCDA.	Three sites were found to be most suitable for waste disposal, and thus, the aim was to prevent public health and environmental problems.
(Amiri, Li, & Hasan, 2023)	JMIR Formative Research	TOPSIS	This study aims to design an AI-powered system that uses MCDM approaches to create personalized healthy meal plans.	The system provides healthy and personalized meal plans, considering the user's health concerns, nutritional needs, dietary restrictions, and preferences.
(Ortiz-Barrios, et al., 2024)	JMIR Rehabilitation And Assistive Technologies	IF-AHP, IF-DEMATEL and COCOSO	The aim of study is to present a novel hybrid multicriteria	It was determined that the most suitable algorithm supporting

			decision-making (MCDM) approach to support classifier selection in technology adoption processes involving patients with Parkinson's disease (PD).	technology adoption in Parkinson's patients is the A3 - J48 decision tree (M3=2.5592).
(Garrison, 2016)	Value In Health	CEA	The purpose of this study is to discuss the key challenges in integrating CEA into clinical guideline development in the United States.	It has been observed that CEA is approaching a critical turning point in US healthcare decision-making, with value-based approaches gaining importance.
(Morais & Santos, 2020)	Value In Health	MACBETH	The aim of this study is to validate the application of multicriteria decision analysis in the use of rivaroxaban and enoxaparin to prevent deep vein thrombosis.	Examples are provided of how the MACBETH method can be integrated with scientific evidence and participatory group processes in health technology assessments.
(George T. K., et al., 2023)	Vaccine	ISPOR	The study aimed To develop a decision support based on MCDM in line with stakeholder preferences for COVID-19 vaccine selection in India.	Considering various criteria, the most suitable vaccines were determined as Covaxin, Janssen and Sputnik.
(Almulhim & Barahona, 2023)	Socio-Economic Planning Sciences	COPRAS	The study aims to prioritize COVID-19 vaccination strategies by proposing a MCDM algorithm.	In vaccination strategies, the three most important criteria have been determined as vaccine distribution, COVID-19 variants, and available resources.
(Garcia-Caceres, Torres-Valdivieso, & Razo-Hernandez, 2024)	Socio-Economic Planning Sciences	SMAA-M	The aim of the study is to analyze how organizational forms and decisions affect costs in pharmaceutical supply chain management in Bogota.	The findings reveal that current governance practices do not fully minimize transaction costs, and that the SMAA-M analysis suggests alternative governance models that may improve

				supply chain performance.
(Guo, Pandey, Doyle, Bian, Lis, & Raisch, 2010)	Value In Health	RBA	The purpose is to identify, compare, and analyze the advantages and limitations of the quantitative methods used for risk-benefit assessment of drugs.	This study recommends using multiple RBA approaches across different indications and groups to limit the risk-benefit profile of new drugs.
(Mujtaba, et al., 2024)	Heliyon	TOPSIS, PROMETHEE II and triangular fuzzy numbers	The purpose of the study is to identify the most suitable and sustainable solid waste management options in Lahore using multi-criteria decision-making (MCDM) methods.	The results show that the best option is a combination of 54% anaerobic digestion, 37% gasification, and 9% storage technologies.
(Mirelman, et al., 2012)	Value In Health	Discrete Choice Experiments (DCE), Multinomial Logistic Regression and Scale Variance Testing	To investigate the presence and the preference status of criteria used in health-related decision-making processes in five different countries.	Norway and Nepal showed a strong preference for effectiveness criteria (10-84% and 6-79%). Brazil and Uganda also showed a preference (34-93% and 18-63%), but less convincingly. Cuba showed the strongest preference for equality criteria (52-213%).
(Thokala & Duenas, 2012)	Value In Health	AHP, ELECTRE and PROMETHEE	The aims of this article are to analyze the potential applications of MCDA approaches in health technology assessment and to explain their relative advantages and disadvantages.	MCDA demonstrates that while it can bring transparency to the decision process, care must be taken in criterion selection and weighting. Different MCDA types offer advantages and disadvantages for various situations.
(Sullivan & Hansen, 2017)	New Zealand	DCE and PAPRIKA	In order to determine the prioritization criteria and their weights for health technologies, a methodology developed in New	The developed methodology tests individual differences in criteria weightings with broad participation from the general

			Zealand and covering the general population was developed and piloted.	population and ensures transparency/inclusiveness in decision processes; however, participation may be low and demographic representation is important.
(Baltussen, et al., 2017)	Value In Health	Literature review and development of the conceptual framework (derivation of the 'evidence-informed deliberative processes' approach combining MCDA and A4R) and feasibility/implementation recommendations for HTA processes.	This article proposes a new method to ensure that the decisions of health technology assessment (HTA) agencies are fairer and more acceptable.	This new method can help HTA agencies make more accurate and equitable choices when deciding which health services should be a priority.
(Lakdawalla, Doshi, Garrison, Phelps, Basu, & Danzon, 2018)	Value In Health	CEA and MCDA	The aim is to define new value elements beyond traditional QALY and cost-focused approaches used to evaluate the value of health technologies, and to discuss how to integrate them into value assessments.	The study concludes that value should be treated in a broader framework, and that examining elements such as scientific spillovers for future innovations and applying an expanded cost-effectiveness analysis (CEA) aligned with the Impact Inventory would be beneficial.
(Phelps, Lakdawalla, Basu, Drummond, Towse, & Danzon, 2018)	Value In Health	CEA and MCDA	The purpose of this study is to address how cost and benefit information is aggregated from individuals to a population level, and how multiple value elements are combined into a single metric.	As a result, approaches such as Extended Cost-Effectiveness Analysis (ECEA) and Multi-Criteria Decision Analysis (MCDA) are presented to solve these two problems.
(Hoedemakers, Tsiachristas, & Rutten-van Mölken, 2022)	Value In Health	CEA, MCDA and Regression analysis	The aim of this study is to investigate how multi-criteria decision analysis (MCDA) can complement cost-effectiveness analysis (CEA) to support investment decisions in aged	Based on the CEA, the integrated elderly care program has a 36% probability of being cost-effective, which is below the conventional Dutch willingness-to-pay threshold of €50,000. MCDA can provide a

			care at the local level.	broader measurement of effectiveness for local-level decision-makers by including outcomes beyond health and longevity and the preferences of multiple stakeholders..
(Khanal, Nghiem, Miller, Scuffham, & Byrnes, 2024)	Value In Health	PAPRIKA	To develop an MCDA-based prioritization framework to support funding decisions for health technologies in Australian HTA.	Among decision-makers, the five criteria with the highest priority have been identified as: clinical effectiveness, safety and tolerability, severity of the disease (level/severity), quality/uncertainty, and the impact on direct health service costs.
(Rocha, 2023)	Procedia Computer Science	AHP and ELECTRE I	The aim is to compare the most appropriate solutions that will increase the health and safety of employees during the cleaning of the structure separating two storage tanks in the waste processing facility with multicriteria decision analyses.	As a result of the study, the application of the suspended rope ascent system was determined as the most suitable solution in the analysis and this solution showed the best performance in terms of safety.
(Martínez, del Carmen Valcárcel Cabrera, & de Labry Lima, 2023)	Nefrología	EVIDEM (Evidence and Value: Impact on Decision-Making)	The aim of the study is to compare the value of two-site dialysis services (outsourced vs. hospitalized) with the MCDA method to determine which model has the higher value.	In conclusion, it was found that hospital dialysis carries higher value than outsourced dialysis and generally provides confidence to decision makers, making the decision process transparent.
(Kaló, et al., 2013)	Value In Health Regional Issues	HTA and MCDA	The aim of the study is to examine the integration of HTA implementation into policy decisions in	In conclusion, the Hungarian Section of ISPOR has been found to play a significant role in HTA implementation. In the future, the

			middle-income countries and to compare capacity building with mandatory HTA use; prioritizing learning from similar countries, highlighting the role of ISPOR Hungary Chapter.	Section will likely play an even more significant role in improving HTA implementation standards and facilitating international cooperation with other countries in the Central Eastern European region.
(Rosselli, et al., 2017)	Value In Health Regional Issues	Evidence-Based Decision Making and HTA	The aim of the study is to provide an overview of the current status of health technology assessment (HTA) implementation in Latin American countries and to identify long-term goals, taking into account regional commonalities.	Based on the results, Latin American countries are increasingly using Health Technology Assessment (HTA) to support health policy decisions, but they face challenges such as limited human resources and funding.
(Chandria h, Shafie, & Thiagaraja n, 2025)	Value In Health Regional Issues	HTA, MCDA, Kruskal Wallis, Mann Whitney U, Wilcoxon sign-ranked and Fisher's Exact tests	The primary objective of this study is to determine the decision criteria preferences of stakeholders in the formulary decision-making processes for cancer drugs within the Ministry of Health. The secondary objective is to identify the outcome measures considered in the assessment of clinical benefits.	According to the study's findings, safety and effectiveness are the most important criteria for evaluating cancer drugs. Additionally, quality of evidence, disease severity, and patient reports are also taken into consideration.
(Vu, Degeling, Westerman, & Ijzerman, 2024)	Journal of Cancer Policy	HTA and MCDA	This study uses MCDA to evaluate stakeholder preferences for the reimbursement of whole genome sequencing (WGS) in blood cancer, with the aim of guiding future HTA.	The study's findings indicate that strong clinical evidence and comparable costs to standard tests are the most crucial factors for the reimbursement of whole genome sequencing (WGS) in blood cancer.

(Pillinger, et al., 2023)	Lancet Psychiatry	TOPSIS	The purpose is to develop a comprehensive side effect database and a digital tool to support personalized prescription decisions for patients with schizophrenia and depression.	As a result, this digital tool, called the Psymatic Treatment Optimizer, ranks treatments in a personalized way by taking into account users' side effect preferences and has the potential to improve patient care.
(Otten, Fazil, Chemeris, Breadner, & Ng, 2020)	Microbial Risk Analysis	MCDA Weighted Sum Approach	The objective of this work is to develop a multicriteria decision analysis (MCDA) tool to prioritize vector-borne diseases of public health importance in Canada under current climate and projected climate change.	In the base case scenario, Eastern equine encephalitis was ranked as the highest priority non-endemic disease. For endemic diseases, the Cache Valley virus was ranked the highest.
(Wallace, Bucknall, Forbes, & Myles, 2023)	BJA Open	Standardised Endpoints in Perioperative Medicine Core Outcomes Measures in Perioperative and Anaesthetic Care (StPeCOMPAC) and PAPRIKA	The purpose is to conduct a Prioritization Setting Partnership (PSP) with patient and institution involvement to identify the top 10 research priorities in perioperative medicine in Australia.	Simultaneously, after the ethical approval process, the studies will be published in peer-reviewed journals, presented at relevant academic conferences, and disseminated through perioperative research networks.
(Quttainah, Mishra, Madakam, Lurie, & Mark, 2024)	Journal of Medical Internet Research Artificial Intelligence (JMIR AI)	AHP, TISM (Total interpretive structural modeling) and MICMAC (Cross-impact matrix-based multiplication applied to a classification)	The purpose of this study is to identify, prioritize, and evaluate the relationships between the enablers for developing successful large language models (LLMs) in medical education.	Based on the analyses, it was found that the most important enabler for LLMs is credibility, followed by accountability and fairness. Furthermore, a framework named CUC-FATE has been developed to evaluate LLMs in medical education, based on seven principles.
(Thanh, Hai, & Lan, 2022)	Computers, Materials & Continua	FAHP and WASPAS	The purpose of this study is to propose a new model to	As a result of this study, a fuzzy MCDM model including FAHP

			overcome the lack of objective criteria and subjective assessment methods that hospitals face when selecting infectious medical waste contractors.	and WASPAS methods has been developed. The proposed method aims to provide a more efficient and accurate selection process for hospitals, thus reducing potential risks.
(Espinoza, Rojas & Acosta de Patino, 2018)	Value in Health Regional Issues	PAPRIKA	This study aimed to explore the potential use of multi-criteria decision analysis (MCDA) to support healthcare decision-making processes in Central America and the Caribbean.	The findings indicate a broad agreement that MCDA can enhance transparency and bring a more structured approach to priority setting. However, due to limitations in local capacities, a stepwise implementation is recommended
(Correia, Ferreira, Zopounidis, & Ferreira, 2024)	Socio-Economic Planning Sciences	Neutrosophic DEMATEL	This study aims to investigate how urban expansion influences real estate ecosystems by applying a neutrosophic DEMATEL method that captures uncertainty and complex interactions in decision processes.	Results show that the neutrosophic DEMATEL technique successfully uncovers key causal factors and clarifies the intricate effects of urban growth on real estate systems, aiding better decision-making for sustainable urbandevelopment.
(Rocha, Oliveira, Baptista, & Patrício, 2022)	Revista Portuguesa de Cardiologia	Sociotechnical approach	To explore how applying a sociotechnical approach can improve efficiency and promote value-based care improvements in catheterization laboratories.	The study demonstrated that integrating sociotechnical principles leads to measurable efficiency gains and supports sustainable improvements aligned with value-based healthcare goals.

(Coburn, et al., 2021)	Research Policy	MCM (multicriteria mapping)	To assess and compare research policy instrument mixes aimed at diagnostic innovation for managing antimicrobial resistance across six European countries using a multicriteria mapping method.	The study found significant differences in the effectiveness of policy instruments across countries, emphasizing the importance of tailored strategies to foster diagnostic innovation against antimicrobial resistance.
(Wilson, Chua, Pryymachenko, Pathak, Sharma, & Abbott, 2022)	Value In Health	PAPRIKA	To compare the effectiveness and applicability of Multicriteria Decision Analysis (MCDA) and Cost-Effectiveness Analysis (CEA) for prioritizing healthcare interventions.	The study found that MCDA provides a more comprehensive and flexible framework for prioritizing healthcare interventions by incorporating multiple criteria beyond cost-effectiveness, whereas CEA focuses primarily on economic efficiency.
(Gil-Nagel, et al., 2022)	Epilepsy & Behavior	Reflective Multi-Criteria Decision Analysis, Expert Panel Scoring & Group Discussion	This study aims to evaluate the contribution of fenfluramine to the treatment of Dravet Syndrome in Spain using a multi-criteria decision analysis approach that considers multiple relevant criteria.	MCDA pilots in Panama and Barbados showed that cost-effectiveness, access, and patient needs guided decisions in Panama, while in Barbados the method proved effective for health prioritization in small, resource-limited island states.
(Tervonen, et al., 2023)	Value in Health	Quantitative Benefit-Risk Assessment (qBRA) And Multicriteria Acceptability Analysis	To provide good practice recommendations for the application of quantitative benefit-risk assessment (qBRA) in medical product decision-making and to establish a standard guidance	The study established a standardized good practices framework for qBRA, enabling regulators and HTA bodies in the US, Europe, and other regions to conduct benefit-risk analyses of medical products more

			for researchers and decision-makers.	transparently, consistently, and comparably.
(Aveiro da Costa, et al., 2022)	Procedia Computer Science	ELECTRE-MOr	The study aims to apply the ELECTRE-MOr multi-criteria decision-making method to humanitarian assistance, enabling decision-makers to evaluate multiple options—such as mobile hospitals, logistics routes, and material distribution—based on several criteria, and make more informed and effective choices during crises and disaster situations.	The ELECTRE-MOr method optimized resource use and logistics for mobile hospitals and medical supplies in Brazil, contributing to the country's healthcare system and disaster management.
(Fu, Ye, & Xie, 2022)	Computer Modeling in Engineering & Sciences	Fuzzy Multi-Sets, Entropy Fuzzy Element, Aczel-Alsina Weighted Aggregation Operators, Group Decision-Making Model	The aim of this study is to develop a systematic decision-making model for evaluating renal cancer surgery options that accounts for uncertainty and incorporates group judgments. In other words, the research seeks to combine multiple expert opinions and criteria under uncertainty to support more objective and reliable surgical decision-making.	The study developed a group decision-making model for evaluating renal cancer surgery options under uncertainty and multiple criteria, contributing in China to more objective surgical decisions, improved patient outcomes, and optimized resource use.
(Xidonas & Steuer, 2022)	Decision Analytics Journal	TOPSIS and PROMETHEE II	The purpose of this study is to develop an integrated multi-criteria evaluation methodology to assess the impact of COVID-19 in the 27 countries of	A new approach has been proposed that is fully customizable in terms of the chosen criteria and their weights, and can be run repeatedly according to the

			the European Union.	dynamics of the current pandemic.
(Barrera, Segura, & Maroto, 2024)	Expert Systems With Applications	RFM (Recency, Frequency, Monetary) criteria-based multicriteria model; Global Local Net Flow Sorting (GLNF sorting) algorithm and SILS quality indicator.	The objective of this study is to design and validate a multicriteria model to support decision-making for customer segmentation in a business-to-business (B2B) context.	The proposed multicriteria system allows thousands of customers to be segmented into categories ordered by preferences, and the resulting segments are more homogeneous, robust, and understandable by managers than those from alternative methods.
(Ashraf, Batoool, & Naeem, 2023)	Computer Modeling in Engineering & Sciences	Einstein aggregation operators and Pythagorean probabilistic hesitant fuzzy set (PyPHFE) environment	The aim of the study is to propose a real-time framework for Mesenchymal stem cell (MSC) transfusion based on a multi-criteria decision-making (MCDM) methodology.	In the conclusion of the study, the applicability and validity of the proposed technique were demonstrated with a numerical case study, and its effectiveness and validity were proven by comparing it with existing techniques.

Conclusion And Evaluation

Multi-criteria decision-making (MCDM) methods are a frequently used approach in operations research that serves to provide solutions to decision problems with multiple criteria. Just as in every field, MCDM methods are also used in healthcare to solve complex and multi-dimensional decision problems. It is known that these methods can be used in healthcare for many purposes, such as risk management, comparison of treatment and care options, selection of diagnostic and imaging approaches, selection of health technologies and devices, and healthcare service delivery. As a result of this large-scale research, which covered the last 25 years and used different keywords, it was observed that MCDM methods were most frequently applied to "Health Technologies" and "Disease Prioritization" topics in the healthcare field. Additionally, it was determined that the journal with the most published articles was "Value in Health" and that the majority of the authors conducted their research in "America." As in previous studies on this topic, this study also found that AHP was the most commonly used MCDM method in healthcare. Thus, it was confirmed how

widespread and effective a tool AHP is for complex decision processes in this field. This extensive literature review not only reaffirms the growing importance of MCDM methods in the healthcare field but also identifies the commonly used MCDM techniques and the topics they are applied to, based on information obtained through a traditional review method. The common focus of all the methods examined is to serve as a decision support system for decision-makers in healthcare. The systematic approach offered by MCDM is seen to help the healthcare sector make more efficient, ethical, and effective decisions. The findings from this research are intended to guide future studies and underscore the need for greater use of MCDM in healthcare service delivery and policy-making processes. It is recommended that healthcare managers do not overlook the use of MCDM methods as a tool in their decision-making processes.

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Chapter 4

A Comparative Analysis of the Turkish Provinces in the Light of Poverty Indicators: An Empirical Analysis

Hayriye ATİK¹

Introduction

The first definition of the concept of poverty was made in 1901 by Seeböhm Roventree. According to this definition, poverty is the situation where total income is insufficient to meet the minimum physical needs such as food, clothing, etc., necessary for the continuation of biological existence (Arpacıoğlu and Yıldırım, 2011: 60). In later periods, broader definitions were developed that considered people's different needs, such as education, health, and cultural needs, and various policies were developed to eliminate poverty. Although poverty reduction policies are implemented in all countries, the scale of poverty is increasing worldwide.

The topic of this section is the examination of poverty in the context of provinces in Turkey. The aim of the chapter is to compare the poverty situations of all 81 provinces in Turkey. The relative poverty situations of the provinces were determined using 20 variables selected from the Human Poverty Index and the Global Multidimensional Poverty Index. In the study using factor analysis, average data from the 2015-2020 period were used.

Literature review revealed that poverty in Turkey is only addressed on the basis of certain provinces or regions. There is not any study that addresses 81 provinces. Therefore, this study is important for determining the poverty level of 81 provinces through empirical analysis. Additionally, in a significant portion of previous research, poverty has been addressed in terms of income level. The number of studies that include a large number of poverty indicators in the analysis, as in this study, is negligible.

The research consists of four sections. In the first section, the concept of poverty is defined and the types of poverty are discussed. The second part consists of a "literature" section summarizing studies analyzing poverty in Turkey at the provincial and regional levels. The third section presents empirical analyzes and findings that determine the relative poverty levels of

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provinces in Turkey. The fourth chapter is dedicated to the "conclusion" section.

1.The Concept of Poverty

"Poverty" is a phenomenon with economic, social, and political dimensions. These different dimensions have led to poverty being defined in different ways. Poverty, in a general sense, refers to the state of society falling below a certain level of living standards. Of course, the scope of poverty varies from time to time and from place to place. In the initial definitions of poverty, income was the primary factor, and poverty was defined as not having sufficient income to meet basic needs. This definition, which is based solely on income, was later considered inadequate, and more comprehensive definitions were developed. According to one of these comprehensive definitions, poverty is "a phenomenon that encompasses all dimensions of human life, including not only economic poverty but also political and social participation, education, health, and human rights" (Coşkun and Tireli, 2008: 23).

Poverty is generally classified in six ways. These are: absolute poverty, relative poverty, objective poverty, subjective poverty, human poverty, and global poverty. Since the poverty indicators we will use in our empirical analyzes will be determined by utilizing these poverty definitions, these concepts will be briefly introduced here.

1.1. Absolute Poverty

This refers to the situation where people are unable to meet the minimum basic needs necessary for survival. In calculating absolute poverty, the market value of goods needed to survive is determined, and this determined amount is considered the poverty line. It is inconceivable that this approach treats people as social beings (Polat and Erdoğan, 2020: 210).

1.2. Relative Poverty

This is a more comprehensive definition of poverty than the concept of absolute poverty. It allows poverty to be measured based on a society's traditional way of life. Those who advocate for relative poverty measurement argue that poverty cannot be measured by universal standards, and that each society must determine poverty within the framework of its own cultural values. The reason for this is that what is considered a basic need for one society is a luxury for another.

1.3. Objective Poverty

Objective poverty is the approach where what is necessary to escape poverty is measured. This is a fact-based approach to poverty because it investigates the causes of poverty and ways to escape it (Yıldırım, 2019: 19).

1.4. Subjective Poverty

This is the approach of using utility as the basis for measuring poverty. This approach focuses on the satisfaction that income brings to individuals. The subjective approach is concerned with the value individuals place on goods and services. This is an approach that is not given much consideration in poverty measurements (Aktan and Vural, 2002: 3).

1.5. Human Poverty

Human poverty is measured by the human poverty index developed by the United Nations Development Program in 1997. The human poverty index, which includes dimensions of poverty other than income, is composed of different components for developing countries and OECD countries. These components are listed in Table 1.

Table 1: Components of the Human Poverty Index

Components of the Human Poverty Index for Developing Countries			
<i>Long and Healthy Life</i>	<i>Knowledge</i>	<i>Decent Standard of Living</i>	
Percentage of people not expected to survive to age 40 at birth	Percentage of adults who are illiterate	Percentage of the population without access to improved water sources	Percentage of children underweight for their age
Components of the Human Poverty Index for OECD Countries			
<i>Long and Healthy Life</i>	<i>Knowledge</i>	<i>Decent Standard of Living</i>	<i>Social Exclusion</i>
Percentage of people not expected to survive to age 60 at birth	Percentage of people without functional literacy skills	Percentage of people living below the poverty line	Long-term unemployment rate

Source: UNDP, Human Development Report 2004, sayfa: 258.

https://hdr.undp.org/sites/default/files/reports/265/hdr_2004_complete.pdf. Erişim Tarihi: 19.02.2022.

1.6. Global Poverty

Global poverty is measured by the global multidimensional poverty index, developed by the United Nations in 2010 to replace the human poverty index. The index is composed of three subcomponents: health, education, and living

standards, and 10 indicators. The index components and sub-indicators are listed in Table 2.

Table 2: Components and Sub-indicators of the Global Multidimensional Poverty Index

Dimensions	Indicators	Contents of the Indicators
Health	Nutrition	The number of individuals under 70 years of age and children who do not receive 2400 kcal of food per day.
	Child Mortality	Child deaths under 18 in the last 5 years
Education	Schooling Year	No one in the family over the age of 10 has completed 6 years of schooling.
	School Enrolment	The presence of children of school age who are not enrolled in school
Living Standards	Cooking Fuel	The household cooks their meals with brushwood, coal, or wood.
	Sewerage	The lack of sanitation facilities such as sewerage for households, or sharing them with other households even if they are available.
	Drinking Water	Households lacking access to drinking water or having safe drinking water located at least a 30-minute walk from their home.
	Electricity	Households not having electricity
	Shelter	At least one component of the house, such as the roof, walls, or floor, is not made of suitable material.
	Assets	The household does not own more than one of the following assets: radio, TV, telephone, computer, horse-drawn cart, bicycle, or refrigerator, and does not own a car.

Source: UNDP, Global Multidimensional Poverty Index, sayfa:2.

https://www.tr.undp.org/content/turkey/tr/home/library/human_development/2020-Multidimensional-Poverty-Index-MPI.html Erişim Tarihi: 19.02.2022.

2. Literature

Poverty in Turkey has been addressed in various studies at the provincial and regional levels.

A provincial-level study on poverty was conducted by Kule and Es for Kocaeli province in 2005. According to calculations made by writers for the year 2000, the richest one percent in Kocaeli province had a monthly income of \$6000, while the poorest segment had a monthly income of \$54. Additionally, when considering 19 major provinces, it was revealed that the poorest 1% of the population lived in Kocaeli. The authors have grouped the causes of poverty in

Kocaeli province under three main headings. These are; poverty due to migration, slum development, and the August 17th Earthquake (Kule and Es, 2005: 281).

A comprehensive study on this topic was conducted in 2009 by Ökten and Kale. Analyses based on the Half of the Average Income, Minimum Calorie Intake, and Basic Needs approaches revealed that poverty in the Eastern Anatolia, Southeastern Anatolia, and Middle Eastern Anatolia regions is above the Turkish average. In intercity comparisons, Mardin, Urfa, Samsun, Erzurum, and Hatay were observed as cities with high levels of poverty.

Doğan and Çelik (2012) analyzed poverty in Diyarbakır using data collected from a survey of 3000 people. Participants in the study stated that unemployment is the most significant cause of poverty. There are also other, more narrowly focused studies that address poverty specifically in Diyarbakır. In some of these studies, poverty in Diyarbakır has been explained in connection with migration. The study "Migration to the City and Poverty: The Case of Diyarbakır" by Melih Ersoy and Tarık Şengül is the best example of the studies in this group.

In this regard, a recent study by Ünlü (2020) investigated which policies should be prioritized in combating poverty in disadvantaged regions of Turkey. The conditions in disadvantaged regions of Turkey have been examined under the headings of unemployment, security, social life, environment, education, income, and wealth. It has been determined that the TRC2, TRC3, and TRB2 regions fall below the Turkish averages in terms of the indicators examined.

In her 2023 study, İncili identified urban poverty spaces in Kilis and the factors influencing their formation. Three types of data were used in the study. These include population numbers by education level at the neighborhood scale, data from the Kilis Chamber of Agriculture's farmer registration system, and the number of families receiving fuel assistance from the Kilis Social Assistance and Solidarity Foundation. The data obtained were divided by neighborhood populations to calculate poverty rates. Areas with high urban poverty are located in the neighborhoods in the north and northeast of the city, as well as in the central neighborhoods where the Syrian immigrant population resides (İncili, 2023:54).

3.The Extent of Poverty in Turkey by Province

The dimensions of poverty in Turkey at the provincial level will be examined empirically using indicators selected from the Human Poverty Index and the Global Multidimensional Poverty Index, as we mentioned earlier.

3.1. Analysis Method

The empirical analysis method used in this study is factor analysis. Factor analysis is a method that reduces a large number of interrelated variables into a small number of meaningful and independent factors or new variables. In factor analysis, a set of variables with high correlations among them is grouped together to form general variables called factors (Kalaycı, 2009: 321).

Factor analysis was chosen here for two purposes. The first of these is that it is one of the most successful methods for revealing relationships between variables in analyzes where a large number of variables are used. The most significant difference between this research and other studies in the literature is, as we mentioned earlier, the inclusion of a large number of poverty indicators in the analysis. Therefore, in this study where a large number of variables are used, factor analysis would be the correct approach to choose. The second reason for preferring factor analysis is that it is often preferred when we want to rank observations in terms of a group of indicators representing a specific phenomenon. Studies by Albayrak (2005) and Turanlı et al. (2012) can be cited as examples of studies conducted in Turkey that ranked provinces using factor analysis.

3.2. Variables Used

The 20 variables we used in the analyses are listed in Table 7. The variables we used are grouped under the components of health, education, living standards, demography, and migration. The groupings made in the Human Poverty Index and the Global Poverty Index were utilized in determining the component names.

Table 7 includes the poverty indicators we used in this section to reveal the dimensions of poverty. Additionally, we can observe from Table 7 the period for which the data for each variable is considered. In our analyzes, all 81 provinces in Turkey were considered as observations. The data we used in the analysis is from the period 2015-2020. By calculating the average values for the years within this period range for each variable, a single year of data was obtained. The reason for choosing this range is that data for the variables we are using is available for different years within this range. Due to this irregularity in the data, it was preferred to use the average data for a specific period instead of including a single year in the analysis. All the data we used was compiled from the websites of the Turkish Statistical Institute .

Table 7: Variables Used in Empirical Analysis

	The Name of the variable	Abbreviation Used in the Analysis	Time period
Health			
1	Life expectancy	Lifeexpectancy	2015-2017
2	Number of doctors per one hundred thousand people	doctors	2015-2019
3	Number of hospital bed per one hundred thousand people	hospitalbed	2015-2019
4	Infant mortality rate	Infantmortality	2015-2019
Education			
5	Percentage of women aged 6 and over who are illiterate	Womenilliteracy	2015-2020
6	Percentage of men aged 6 and over who are illiterate	Menilliteracy	2015-2020
7	The percentage of those who are not enrolled, despite being required to be enrolled in primary school	primaryeducation	2015-2020
8	The percentage of girls who are not enrolled in primary school, despite being required to be	womenprimary	2015-2020
9	The percentage of students who should be enrolled in secondary education but are not	secondaryeducation	2015-2020
10	The proportion of girls who should be enrolled in secondary education but are not	womensecondary	2015-2020
11	Percentage of faculty and college graduates	University	2015-2020
Living Conditions			
12	Unemployment rate (%)	Unemployment	2015-2020
13	Per capita GDP (dollar)	Income	2015-2020
14	Share of the urban population not served by the sewage network, (%)	sewage	2015-2020
15	Share of the urban population not served by the drinking and utility water network, (%)	Water	2015-2020
16	Percentage of those experiencing problems with housing quality	Housing	2015-2020
17	Percentage of households declaring they cannot meet their basic needs, (%)	Basicneeds	2015-2020
18	Number of cars per thousand people	Cars	2015-2020
Demographic Indicators			
19	Total age dependency ratio	Agedependency	2017-2020
20	Child dependency ratio: The number of children per 100 people in the 15-64 age group	Chielddependency	2017-2020

The Global Multidimensional Poverty Index has three dimensions: health, education, and standard of living. Under the education dimension, the sub-indicator "school enrollment" is included. This sub-indicator addresses the presence of children who are not enrolled in school at the ages they should be. In this study, the net enrollment rates in primary and secondary education published by Turkish Statistical Institute for each province were used to calculate the proportion of children not enrolled in school for each education level, and this data was used in the analyzes.

The ratio of the municipal population served by the sewage network to the total population is published by Turkish Statistical Institute for the provinces. Since the global multidimensional poverty index considers the proportion of people without access to a sewage network, the data was calculated by subtracting the proportion of those served from 100. Similarly, by utilizing data related to the municipal population served by the drinking and domestic water network, the percentage of the population not served by the drinking and domestic water network was calculated.

3.3 Empirical Results

The first step before starting factor analysis and other similar multivariate statistical analysis methods is to standardize variables expressed in different units of measurement. The data we will include in the empirical analysis is expressed in different units of measurement, such as percentages, per thousand, numbers, and dollars. Therefore, the first step we take before factor analysis is to standardize the data.

After standardizing the data, the first step is to assess the suitability of the factor analysis method for the dataset. The suitability assessment is conducted using two methods. One of the methods used for this purpose is the creation of a correlation matrix. High correlations between variables mean that the variables will form common factors.

Whether factor analysis can be used is determined by two separate tests. The first of these tests is the sphericity test developed by Bartlett. In the Bartlett test, an attempt is made to determine whether there is any relationship between the variables within the population. The null hypothesis (H_0) states that there is no relationship between the variables, while the alternative hypothesis (H_1) indicates the presence of a relationship. If the hypothesis is rejected, it indicates that there are high correlations between the variables and that the dataset is suitable for factor analysis.

Another test that determines whether factor analysis can be used is the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy. The KMO test

measures sample adequacy. The magnitude of the correlation coefficients observed with the KMO test is compared to the magnitude of the partial correlation coefficients. The KMO should be above 0.5. In some studies, this ratio was desired to be above 0.6 (Kalaycı, 2009: 321-322; Norusis, 1993: 52). Therefore, if the value found in the KMO test is below 0.50, the sample is considered insufficient; 0.50 is considered "weak," 0.60 "moderate," 0.70 "good," 0.80 "very good," and 0.90 "excellent" (Sharma, 1996: 116). KMO is calculated using formula number "1".

$$KMO=\frac{\sum\limits_{i\neq j}\sum\limits_{i\neq j}r_{ij}^2}{\sum\limits_{i\neq j}\sum\limits_{i\neq j}r_{ij}^2+\sum\limits_{i\neq j}\sum\limits_{i\neq j}a_{ij}^2} \quad (1)$$

In the formula, rij represents the simple correlation coefficient between variables "i" and "j". The term aij in the denominator represents the partial correlation coefficient between "i" and "j".

In Turkey, provinces were ranked in terms of poverty using provincial data and with the help of factor analysis. The findings of our analysis, conducted using the average data for the 20 poverty indicators listed in Table 7 for the period 2015-2020, are interpreted below.

Table 8: KMO and Bartlett’s Test

Kaiser-Meyer-OlkinMeasure of Sampling Adequacy.				,844
Bartlett's Sphericity	Test of	Approx. Chi-Square		1506,370
			Df	190
			Sig.	,000

To test whether the data is suitable for factor analysis, the results of the KMO and Bartlett tests in Table 8 were examined. A KMO coefficient of 0.844 indicates that the sample size is at a very good level, which shows that the number of data points is sufficient for factor analysis.

According to Table 8, the Bartlett's test of sphericity value is 1506.370. This value is valid at a significance level of 0.00. It is desired that the significance level be less than 0.05. In this case, the null hypothesis is rejected. So, Bartlett's test of sphericity was found to be significant. There are high correlations between the variables. In other words, the dataset is suitable for factor analysis.

Table 9: Total Variance

Component	InitialEigenvalues			ExtractionSums of SquaredLoadings		
	Total	% Of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,669	43,345	43,345	8,669	43,345	43,345
2	2,753	13,767	57,113	2,753	13,767	57,113
3	1,634	8,172	65,285	1,634	8,172	65,285
4	1,311	6,556	71,841	1,311	6,556	71,841
5	1,139	5,694	77,535	1,139	5,694	77,535
6	,976	4,881	82,416			
7	,715	3,576	85,992			
8	,606	3,028	89,020			
9	,550	2,752	91,772			
10	,306	1,532	93,305			
11	,283	1,414	94,719			
12	,248	1,242	95,961			
13	,188	,938	96,899			
14	,144	,718	97,617			
15	,130	,649	98,266			
16	,110	,548	98,814			
17	,096	,481	99,296			
18	,064	,321	99,616			
19	,048	,242	99,859			
20	,028	,141	100,000			

Extraction Method: Principal Component Analysis.

The eigenvalues in the total variance table are the total variance values explained by each factor. Any factor with an eigenvalue less than 1 does not have sufficient total variance to represent a single factor and is therefore disregarded. When examining the total variance results, components after the fifth will not be considered in subsequent parts of the analysis because they have eigenvalues less than one. The cumulative total variance explained by five components with eigenvalues above 1.00 is 77.535% (Table 9).

Table 10 shows the variables affecting each factor. The first factor is called the "literacy rate." The reason for this naming is that the factor in question heavily influences the variables "percentage of women aged 6 and over who are illiterate" and "percentage of men aged 6 and over who are illiterate." The second factor is named "unemployment" with a value of 0.785. The variable with the highest correlation with this factor is "unemployment" (factor loading: 0.785); the variable with the lowest correlation is "percentage of university graduates" (factor loading: 0.016). The third factor is named "primary school enrolment" because the variable with the highest correlation with this factor is

"the percentage of girls who should be enrolled in primary school but are not" (factor loading: 0.970). The fourth factor, named "health," is due to its high inverse correlation with the variables of hospital beds per one hundred thousand people and physicians per one hundred thousand people. The fifth factor is named "life expectancy" due to its high correlation with the variable "life expectancy at birth" (factor loading: 0.843).

Table 10: Rotated Components Matrix ^a

	Component				
	1	2	3	4	5
Zscore(Menilliteracy)	,883	,235	,014	,133	,062
Zscore(Womenilliteracy)	,876	,275	,042	,128	,055
Zscore(Income)	-,842	-,062	-,130	-,111	,271
Zscore(Car)	-,739	-,435	-,176	-,218	,088
Zscore(Housing)	,721	,470	,009	,124	-,030
Zscore(Agedependency)	,664	,497	-,095	,240	-,285
Zscore(Basicneeds)	,629	,589	-,163	,188	-,028
Zscore(unemployment)	,170	,785	-,095	,043	,274
Zscore(Chielddependency)	,502	,719	-,135	,246	-,226
Zscore(Womensecondary)	,503	,675	,096	,171	-,281
Zscore(Infantmortality)	,285	,552	,050	,150	-,392
Zscore(womenprimary)	-,016	-,081	,970	,008	,073
Zscore(primaryeducation)	-,052	-,239	,894	,016	,067
Zscore(secondaryeducation)	,270	,324	,850	,132	-,050
Zscore(Hospitalbed)	,029	-,419	-,187	-,684	,103
Zscore(doctor)	-,212	-,112	-,170	-,661	,416
Zscore(Sewage)	,241	,144	-,088	,553	,211
Zscore(Water)	,454	-,108	-,033	,536	,201
Zscore(Lifeexpectancy)	,018	-,057	,156	,149	,843
Zscore(University)	-,596	,016	-,050	-,343	,619
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization. ^a					
a. Rotationconverged in 11 iterations.					

The ranking was done using the factor scores of the provinces based on the first factor in Table 11. As a result of our analysis to determine the poverty levels of provinces using average data from the 2015-2020 period, the ranking in Table 11 was obtained. Accordingly, within the framework of the poverty data we are examining, Ağrı province emerges as the poorest province. Ağrı province is followed by Iğdır, Diyarbakır, Giresun, and Kars. In contrast, the most developed province is Istanbul. In terms of development, Kocaeli is in second place and Ankara is in third.

When we examine Table 11, it is observed that, with three exceptions, the 20 poorest provinces are located in the Eastern and Southeastern Anatolia regions of Turkey. The provinces we mentioned as exceptions are Giresun, Trabzon, and Çorum.

Table 11: Ranking of Provinces in Turkey by Poverty Level (Starting from the Poorest)

Poverty Ranking	Poverty Ranking	Poverty Ranking	Poverty Ranking
1.Ağrı	22.Kahramanmaraş	43.Gaziantep	
2.İğdır	23.Zonguldak	44.Bayburt	68.Denizli
3.Diyarbakır	24.Sivas	45.Gümüşhane	69.Sakarya
4.Giresun	25.Batman	46.Adana	70.Bursa
5.Kars	26.Tunceli	47.Isparta	71.Eskişehir
6.Mardin	27.Tokat	48.Bolu	72.Yalova
7.Ordu	28. Şırnak	49.Afyonkarahisar	73.Muğla
8.Adıyaman	29. Hakkari	50.Artvin	74.Kırklareli
9.Ardahan	30. Kastamonu	51.Manisa	75.Bilecik
10.Bingöl	31.Bartın	52.Niğde	76.İzmir
11.Muş	32. Sinop	53.Amasya	77.Antalya
12.Bitlis	33.Rize	54.Konya	78.Tekirdağ
13.Şanlıurfa	34. Edirne	59. Balıkesir	79. Ankara
14.Erzurum	35.Karabük	60. Kırşehir	80.Kocaeli
15.Van	36.Kırıkkale	61.Kayseri	81.İstanbul
16.Trabzon	37.Kilis	62.Düzce	
17.Elazığ	38.Osmaniye	63.Karaman	
18.Siirt	39.Samsun	64.Çanakkale	
19.Çorum	40.Çankırı	65.Mersin	
20.Malatya	41. Bayburt	66.Nevşehir	
21.Yozgat	42. Erzincan	67.Burdur	

When we examine the 20 most developed provinces at the end of Table 11, we see that no provinces from the Eastern and Southeastern Anatolia regions are included in this group. This group, where poverty is least felt, is located in Turkey's Central Anatolia, Aegean, Mediterranean, and Marmara Regions. Among these 20 provinces where poverty is felt the least, no provinces from the Eastern Anatolia, Southeastern Anatolia, and Black Sea regions were included.

4. Conclusion

In this study, the poverty situations of provinces in Turkey were examined using 20 indicators selected from the Human Poverty Index and the Global Multidimensional Poverty Index. In the study, which used average data from the 2015-2020 period, factor analysis was utilized. Unlike the limited number of studies in the literature that focus on specific provinces or regions, all 81 provinces were included in the analysis. Another aspect that distinguishes this research from other studies is the inclusion of a large number of poverty indicators in the empirical analysis.

The analysis results showed that Ağrı province is the poorest province. This province was followed by Iğdır, Diyarbakır, Giresun, and Kars, respectively. The provinces where poverty is least felt are located in Turkey's Marmara, Aegean, Mediterranean, and Central Anatolia regions. The poorest provinces are located in the Eastern Anatolia, Southeastern Anatolia, and Black Sea Regions. Therefore, poverty reduction policies can be implemented at the provincial level as well as the regional level.

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Chapter 5

A Review On Yoghurts With Geographical Indication In Turkish Cuisine

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Abstract

Turkish cuisine is considered one of the world's leading cuisines with its historical depth and rich diversity. One of the most important reasons for this is the use of traditional foods specific to Turkish culture in Turkish cuisine. Yoghurt is one of these traditional foods. Yoghurt is a nutrient frequently consumed by Turkish communities from the past to the present. Today, yoghurt consumption is becoming increasingly widespread around the world due to its healthy and nutritious features. In order to protect the production techniques, flavor, and characteristic features of yoghurt and to raise its awareness, it is registered with geographical indication. The geographical indication not only raises the awareness of yoghurt but also ensures the protection of its original value. Furthermore, geographical indication, yoghurt, and yoghurt-based gastronomic products constitute an attraction factor for tourism. This study aims to examine the geographically indicated yoghurts in Türkiye and to reveal their place and importance in Turkish cuisine and their potential for gastronomy tourism. In this scope, the geographically indicated yoghurts published on the website of the Turkish Patent and Trademark Office were examined and information based on the relevant literature was compiled about the name, region, and distinctive features. As a result of the study, it was detected that there are 10 yoghurts registered with the geographical indication in Türkiye as of February 2024 and these yoghurts are concentrated in Marmara, Western Black Sea, Central Anatolia, and the Mediterranean regions. It was revealed that these yoghurts are mainly produced from buffalo and sheep milk, partly from cow and goat milk, and that their structural features and flavors are specific to their region. In this sense, it was concluded that geographically indicated yoghurts produced with traditional production methods have the potential to increase the touristic demand for the region and therefore for the country as a gastronomic product.

Keywords: Yoghurt, Geographical indication, Turkish cuisine, Gastronomy tourism.

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1. Introduction

The food sector has changed the traditional forms of production by attempting to respond quickly to increasing consumer demand. The field of gastronomy, which has been in constant change from past to present, has brought various innovations as a result of this process (Kavas, 2022). These innovations and changes have led to discussions on the protection of traditional foods. Traditional foods were taken under protection with the European Union's regulation numbered 2081-2082/92 on July 14, 1992. With this regulation, geographical and origin indications for agricultural and food products were made and certificates were given to the products. In addition, this regulation is significant as it is effective in increasing the economic value of traditional foods (Tekelioğlu, 2021).

Interest in healthy living products has led consumers to prefer natural and traditional products. In recent years, consumers have become more conscious about health. This situation has boosted the interest in functional foods with bioavailability and more health benefits (Sahingil and Hayaloğlu, 2022). Yoghurt is one of the products that can be considered due to its traditional food feature and its contributions to health. Yoghurt, which has been used for thousands of years, is a fermented dairy product that contributes to human health with the probiotics and minerals it contains. Functional foods' rich nutritional value, as well as their positive effects on healthy life (Essa et al., 2023), have led to an increase in yoghurt consumption. These products are preferred because they contain probiotic bacteria that are beneficial for healthy gut microbiota and overall health. Therefore, the yoghurt industry is constantly focusing on introducing new products and innovations with an emphasis on healthy living (Özer, 2006). In recent years, the consumption rate of yoghurt has been increasing rapidly in many countries around the world due to the trend towards healthy eating, healthy living, and increasing product variety. Yoghurt, which has become an increasingly popular nutrient, is one of the products with increasing global trade volume. In 2018, the market revenue of the global yoghurt industry was 119.8 billion dollars while this figure is expected to increase every year and reach 237.2 billion dollars in 2028 (Shahbandeh, 2023). These data point to the increasing value of yoghurt in the world. This value of yoghurt also draws attention to the place and form of production (Chandan et al., 2017).

Yoghurt has a privileged place in Turkish cuisine culture. Considering the fact that the name of yoghurt, which has ancient origins, has passed into world languages from Turkish (Durukoğlu, 2017) and was first used by Turkish communities (Şireli and Onaran, 2012), yoghurt is important both culturally and as a gastronomic product. Due to the increasing consumption of yoghurt in different forms (Yıldırım et al., 2014) and the fact that it has become an attraction

for gastronomy tourism, yoghurt produced in different regions in various ways has brought about the necessity to be registered and protected with a geographical indication. Along with the gastronomic product value of yoghurt registered with geographical indication, the potential to contribute to the local economy also increases (Şen, 2023). Although academic studies on the place and importance of yoghurt in Turkish cuisine have increased in recent years (Dündar Arıkan, 2020; Köse, 2018; Badem, 2021), it is noteworthy that there is no academic study that examines geographically indicated yoghurts, reveals their features and focuses on their potential in terms of gastronomy tourism. Nevertheless, such studies are of great importance in terms of revealing the unique characteristics of the yoghurts registered with a geographical indication in Turkish cuisine and their value for tourism.

The aim of this study is to examine the geographically indicated yoghurts in Türkiye and to reveal their place and importance in Turkish cuisine and their potential in terms of gastronomy tourism. In this context, the concept of yoghurt and its history were first introduced and the importance of yoghurt in human health and nutrition was emphasized. Then, yoghurts registered with geographical indications by the Turkish Patent and Trademark Office (Türkpatent) were identified and their regions, production processes, and distinctive features were examined in detail. Additionally, the potential value of geographically indicated yoghurts in Türkiye for tourism as a gastronomic attraction is discussed and explanatory information is provided. This is the first study to examine geographically indicated yoghurts in Turkish cuisine in terms of their distinctive features, nutritional values, and gastronomy tourism potential, which increases the originality of this study. Moreover, it is believed that this study will make an important theoretical contribution to the development of the literature on yoghurt in gastronomy and food science. Filling the gap in the relevant literature in this field and increasing the diversity of existing knowledge increases the importance of this study even more.

2. The Concept of Yoghurt and Its History

Yoghurt, which has been used in different forms in different cultures from the past to the present, has passed from Turkish to the world languages. In this context, the word yoghurt derives from the word "*to put the milk to sleep*". In historical and contemporary Turkish dialects and Türkiye Turkish, the verb "*uyut-*" is used in the sense of "*fermenting milk, making yoghurt*" (Durukoğlu, 2017). In addition, the word "yoghurt" derives from the word "*yoğurmak (to knead)*" which means "*koyulaştırmak (to thicken)*" and "*pıhtılaştırmak (to coagulate)*" (Fisberg and Machado, 2015). When examined worldwide, it is seen that the

words yogurt (Adjei et al., 2024; Sarker and Siddiqui, 2023; Wu et al., 2023; El-Abbadi et al., 2014; Fisberg and Machado, 2015; Weerathilake et al., 2014; Adolfsson et al., 2004; Meydani and Ha, 2000) and yoghurt (Adjei et al., 2024; Östlund et al., 2024) are widely used.

Definitions regarding the concept of yoghurt vary (Hui, 2012). When these definitions are examined, it is apparent that there is a consensus that yoghurt is mostly a curdled or fermented dairy product (Arab et al., 2023; Rashwan, et al., 2023; Sarker and Siddiqui, 2023; Fisberg and Machado, 2015; Weerathilake et al., 2014; Lee and Lucey, 2010). On the other hand, according to some researchers, yoghurt is one of the most well-known nutrients containing probiotics (Adjei et al., 2024; Rashwan et al., 2023; Adolfsson et al., 2004). There are also definitions of yoghurt by establishing a relationship with a healthy life. Based on these researchers (Abdi-Moghadam et al., 2023; Wu et al., 2023; El-Abbadi et al., 2014; Adolfsson et al., 2004; Meydani and Ha, 2000), yoghurt is a probiotic food with unique features and high nutritional value.

The journey of yoghurt in the historical process is uncertain. Nevertheless, when looked at the history of yoghurt, it dates back to the time when Neolithic people in Central Asia started to acquire the ability to milk animals from hunter-gathering (Weerathilake et al., 2014). Although the origin of the yoghurt is largely unknown, it is possible to say that it has a long history. Traditions of milk fermentation are present in many regions around the world, including Europe, the Middle East, the Indian subcontinent, Central Asia and Africa. Archaeological evidence suggests that around 11,000 years ago, sheep, goats, and later cattle were domesticated in the fertile lands that cover what is now Jordan, Lebanon, Syria, and Iraq. Another type of cattle, the Zebu, or humped cattle, was domesticated about 8,000 years ago in present-day Pakistan. Other domesticated dairy animals include buffalo, horse, donkey, dromedary camel, two-humped camel, and reindeer (Hendy et al., 2022a).

It is known that yoghurt was first consumed by nomadic Turkish tribes in ancient times. Initially, it is thought that yoghurt was developed by the nomadic Turkish tribes by naturally souring and thickening the milk stored in animal skins (Şireli and Onaran, 2012). This fermentation process is assumed to take approximately a few days. Furthermore, it is possible to guess that the people living in that period lasted longer by converting the soured milk product into yoghurt due to the hot climatic conditions. It is also possible to state that nomadic people began to prefer the taste of yoghurt to fresh milk (Tribby, 2009). Evidence supporting this view can be found in Old Turkish texts. It is recorded in many Old Turkish manuscripts, from medical books to Old Turkish versions of Buddhist narratives of Indian origin, from the Old Uyghur version of the Tibetan

Book of the Dead to Kashgarli Mahmut's *Divanü Lügati't-Türk*. Old Turkish works also contain the names of milk, the raw material of yoghurt, and other foods made from milk (kurut, ayran, tar, koumiss, etc.) (Şirin, 1999).

The first information about the spread of yoghurt in Europe is encountered in French medical history. In the 16th century, King Francis I of France suffered from febrile diarrhea. The Turks brought yoghurt to Francis I for treatment and advised him to eat it. Thus, yoghurt production suddenly started to increase throughout the world. At that time, yoghurt was mostly recognized as a medicine in France. Together with the Turkish doctor, they milked the milk of a goat taken from Istanbul to France, made yoghurt, and fed it to the king as medicine. The king recovered after a short treatment and named the yoghurt "*the milk of eternal life*" and demanded that medical students learn how to make the yoghurt (Kurt, 2010). It was not until the early 20th century that yoghurt spread widely in the world and crossed Turkish borders. Yoghurt was recognized in America approximately 45-50 years ago. It can be stated that the spread of yoghurt in Asia and Africa from the ancient world was through the Turks. Marco Polo wrote that yoghurt was consumed in China (Meat and Milk Institution, 2023). While the production of sour-milk foods has been around for thousands of years, the historical origins of yoghurt found in the United States or European supermarkets can be traced back to the early 20th century. In the early 1900s, Bulgarian researcher Stamen Grigorov discovered a bacterium called *Lactobacillus delbrueckii subsp* by examining yoghurts in his home country. Inspired by the discovery of this bacterium, Nobel laureate Ilya Mechnikov attributed the longevity of Bulgarian villagers to the importance of yoghurt in their food and drink culture. Working at the Pasteur Institute in Paris, Mechnikov isolated pure cultures of this bacterial species. Issac Carasso, who opened a dairy factory, utilized Mechnikov's cultures to produce a commercial yoghurt under the brand name Danone. Thanks to the historical isolation of a bacterial subspecies from a Bulgarian villager's yoghurt, yoghurt became the starting point for the vast majority of commercially produced yoghurts found in the United States and Europe (Hendy et al., 2022b). The invasions of Russia and Europe by Mongols, Tatars and other Asian rulers are believed to have contributed to the spread of yoghurt and fermented milk to other parts of the world. Yoghurt is now a very popular product and an essential part of the diet in Europe, Australia and many other parts of the world (Chandan et al., 2017).

Today, the yoghurt consumption varies from country to country around the world depending on factors such as cultural habits, dietary preferences and local production capacities. Changing preferences and production technologies have led to a rich diversity in terms of diversifying the usage of yoghurt. Today, plain

yoghurt is consumed in various types such as ayran, fruit-flavored yoghurt, aromatic yoghurt, buttermilk ayran, strained yoghurt, salty yoghurt, tulum yoghurt, winter yoghurt and yoghurt ice cream (Yıldırım et al., 2014). Plain yoghurt is yoghurt without added flavors, stabilizers, or coagulants. With the development of technology, other types of yoghurt have become available, such as aromatic and sweetened yoghurt, blended yoghurt, yoghurt drinks, and frozen yoghurt (Hui, 2012).

3. The Use and Importance of Yoghurt in Turkish Cuisine

The importance of yoghurt in Turkish cuisine is a matter that can be explained by traditions and eating habits. The interest of nomadic communities in Central Asia in animal husbandry brought along the abundant consumption of milk (Özden, 2008). Yoghurt, which is obtained as a result of fermenting and consuming milk, gained a traditional dimension in Turkish culture. The use of yoghurt, which has spread out as a consequence of the increase in cultural interactions, is among the important nutrients thanks to its nutritional and health-protecting features (Talas, 2005). Yoghurt is often preferred in Turkish cuisine since it is simple to make and remains suitable for consumption for a longer period of time than milk (Fisberg and Machado, 2015). Yoghurt can be consumed plain, on top of meals, or with meals, as well as in soups, pastries, salads, and appetizers, the raw material of which is yoghurt (Yılmaz, 2002). Yoghurt is also mostly preferred in marinating red meats in order to give flavor to meats due to the acid density it contains (Kızılaslan and Solak, 2016). Especially in the Southeastern Anatolia Region, yoghurt use is more common than milk use. In this regard, yoghurt is stored and preserved in various ways to be consumed in summer and winter. The process of drying yoghurt and storing it for consumption in winter is known as "kurut" (Ertaş and Gezmen-Karadağ, 2013).

Another area where yoghurt is utilized is in soups. Especially tarhana soup, yoghurt soup, yayla soup, ayran aşısı soup, çılıbır soup are among the most widely consumed and well-known yoghurt-based soups. On the other hand, yoghurt is widely used in Turkish cuisine with main dishes and appetizers, such as Ali Nazik, Eggplant dish, Pepper Yoghurt (Ciğerim, 2001). At the same time, the tradition of obtaining butter by adding warm water to yoghurt and the tradition of extracting butter in special tulum, then removing the fat, boiling it by adding salt, and making cheese varieties such as cottage cheese and kesh by straining it is still maintained in some regions (Baysal, 1993).

Straining, which makes it possible to store yoghurt for a longer period, is a commonly used practice (Seçkin and Baladura, 2012). By reducing the water content of yoghurt with traditional methods, a more viscous and lasting yoghurt

can be obtained. Yoghurt obtained by filtration is also known as *Bag Yoghurt and Pouch Yoghurt*. Another form of yoghurt obtained through traditional processes is the concentrated yoghurt known as "salty yoghurt". Cow and goat milk are generally used in the production of salty yoghurt. Yoghurt or strained yoghurt is thickened by heat treatment and then salt is added and can be stored for up to 1 year (Şahan et al., 2004). Olive oil or plain butter is applied on the product to prevent contact with air, which increases its shelf life (Köse, 2018). Another traditional way of consuming yoghurt is *mild cream cheese*. The product, which is produced by straining and shaping the yoghurt and preserving it in fat, is similar to mild cream cheese production. In mild cream cheese production, strained yoghurt is kept in a cloth bag in refrigerator conditions for 24-48 hours. The strained yoghurt is salted and shaped into a round shape by hand. The shaped mild cream cheese is flavored plain or with a mixture of black cumin, oregano, red pepper flakes and cumin. Then it is left to dry for a while. If desired, it is placed in a jar and an fatty mixture containing a high percentage of olive oil and some vegetable oil is added on top (Kavas and Kavas, 2022). Another product that can be shown as an example of yoghurt consumption with traditional methods is *yoghurt cheese*. Yoghurt cheese is usually produced from goat's milk in homes and small businesses. This type of cheese is known as yoghurt cheese in the Hatay region, while in the Mersin region it is also known as *Cheese with black cumin seeds, curd, curd cheese or milk curd cheese*. Yoghurt cheese is white and cream colored, has an elastic structure, and can be consumed both fresh and ripened. In addition to being used as a breakfast or appetizer, it is also preferred in various desserts such as künefe and stone kadayif. However, the amount of product obtained is quite small due to the production method. Approximately 1 kg of yoghurt cheese is obtained from 8-10 kg of milk (Seçkin and Baladura, 2012). Finally, the product that can be shown as an example of yoghurt consumption is *cottage cheese*. Cottage cheese is usually obtained by fermenting dairy products such as yoghurt, ayran, or milk and then straining these products in cheesecloth. This cheese is a yoghurt-based cheese that is widely consumed in Turkish cuisine, especially in rural areas. Produced using different raw materials, cottage cheese is low in fat and calories, but high in protein and calcium (Kavas and Kavas, 2022).

4. Türkiye's Yoghurts with Geographical Indication

A geographical indication is known as a quality indication used to ensure the sustainability of products by registering the products of a particular region and at the same time to add touristic value to the products (Bramley and Kirsten, 2007). On the other hand, a geographical indication is also defined as a distinctive

indication that is associated with the geographical region where the products originated and the geographical location of their features (Correia et al., 2008). In this respect, geographical indications can be described as indications pointing to the origin of products (Oraman, 2015; Köşker, 2022). A geographical indication is established by using the names or symbols of the regions where the products are located in order to indicate that the products are produced in a certain geographical area (Feo, 2005).

Throughout the world, yoghurt is obtained from the milk of certain domesticated mammals (Bonczar et al., 2002). These animals comprise cows, sheep, goats, buffaloes (Fazilah et al., 2018), camels, yaks, and horses (Fisberg and Machado, 2015). According to the standards set by the Turkish Standards Institute (TSI), in Türkiye, yoghurt is produced by pasteurizing cow's, sheep's, buffalo's, and goat's milk or mixtures of these milks, or by homogenizing or non-homogenizing pasteurized milk with the addition of milk powder when deemed necessary (TSI, 2006). In Türkiye, yoghurt is mainly produced from cow's milk, yet it can also be produced from sheep, goat, and buffalo milk or a mixture of these milks to a certain extent. The quality of milk used in yoghurt production is essential because the flavor, textural, and compositional properties of yoghurt vary based on the type of milk used (Erkaya and Şengül, 2011).

Yoghurt holds a significant place in Turkish gastronomy. Yoghurt, which was previously produced with traditional methods (Yıldırım et al., 2014; Köse, 2018), is now produced as a local/homemade or industrial type. A certain standard has been achieved in industrial yoghurt production (Demirci & Ocak, 2020). However, homemade yoghurt is generally admired, and there is not a standard for its production. Depending on the milk component used by the producers and the fermentation process, this yoghurt may differ. Homemade and industrial yoghurt production goes through the production processes shown in Fig. 1.

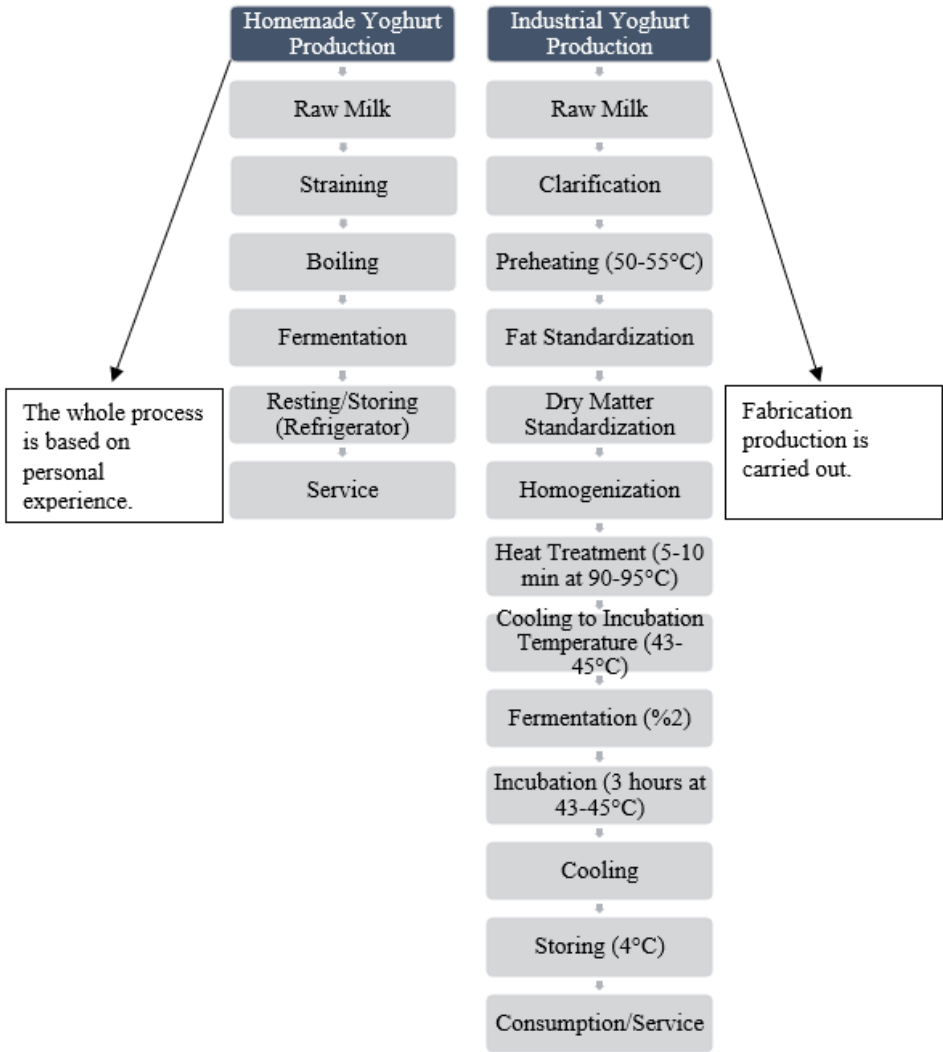


Fig. 1. Stages of homemade and industrial yoghurt production

Source: Adopted from Demirci and Ocak (2020).

As there is a high demand for products produced with traditional methods, some foods produced in different regions of Türkiye can be sold as local products even though they are not produced in that region (Gökgöz, 2017; Güner and Çılğınoglu, 2023). The geographical indication system is being incentivized in Türkiye, as in European countries, in order to emphasize the distinctiveness of local products (Teuber, 2011; Giray et al., 2021), to protect their quality in a sustainable way, to preserve traditional knowledge, production and processing system, to create a sense of belonging, to strengthen the local community (Seal

and Piramanayagam, 2018), to support rural development (Saputra, 2020), to protect producers and consumers by eliminating unfair competition (Sanders, 2010). Yoghurt is a product registered under the geographical indication system as well.



Fig. 2. Geographically Indicated Yoghurts in Türkiye by Region (Created with Google Earths by the authors).

According to Türkpatent data for February 2024, there are a total of ten geographically indicated yoghurts (Fig. 2) in Türkiye (Türkpatent, 2024). Three of the registered yoghurts are made from buffalo milk, three from sheep milk, one from cow milk, one from goat or cow milk, one from plain goat milk or a mixture of goat and cow milk, and one from cow, sheep and buffalo milk or a mixture of these in a certain ratio. While the nutrient values of yoghurts produced from a single type of milk are included in the text, the nutritional values of Silifke and Silivri Yoghurts produced from more than one type of milk or a mixture of these in a certain ratio are presented in a table. These yoghurts and their features are given below:

Afyon Buffalo Yoghurt; buffalo milk has high values in terms of fat, protein, dry matter and lactose (Aydın and Güneşer, 2021). It also contains high amounts of amino acids and essential amino acids (Sun et al., 2014). Buffalo milk is not used as drinking milk due to its rich nutritional value, aroma and taste. It is mostly utilized in yoghurt, cream and cheese production (Pamuk and Gürler, 2010). Afyon Buffalo Yoghurt is obtained by fermenting the milk of Anatolian buffaloes raised in Afyon province. This yoghurt is porcelain white in color, has a unique taste and smell, thick, viscous structure and has a sticky feature (Fig. 3). Although the milk component of buffaloes varies according to feeding type, lactation period

and season, it is in the fatty milk class group in terms of milk fat. Afyon Buffalo Yoghurt is a product containing at least 3% milk fat, 5% milk protein, 0.06% - 1.5% titration acidity, with a pH value between 4.2 and 4.9 (Türkpatent, 2021a).

Antakya Salty Yoghurt; it is produced by traditional and industrial methods in Hatay province and its districts. This yoghurt is also known as salted yoghurt, yoghurt cheese (Güler, 2007), winter yoghurt, autumn yoghurt, baked or cooked yoghurt in Türkiye (Say et al., 2020). It is produced in spring and summer when milk is abundant and consumed in winter when milk is scarce (Köse, 2018). Antakya Salted Yoghurt is a fermented product obtained from cow or goat milk. The fermented yoghurt is strained, optionally re-diluted, cooked in large copper basins or cauldrons, and salt is added when it reaches a certain consistency. Whereas yoghurts made from goat's milk are white, shiny and smooth, yoghurts made from cow's milk have different hues ranging from white to cream-colored (Fig. 4). In addition to its sour and salty taste, yoghurt made by cooking on wood fire with traditional methods has a slightly incense taste and odor (Türkpatent, 2020a). Since Antakya Tuzlu Yoghurt is a concentrated product, it is a nutritious product containing high levels of protein, fat, dry matter, and minerals (Şahan and Say, 2003). It comprises 34.8% milk protein, 29.3% milk fat, 17.7% salt (maximum), 22.5% dry matter, and 2.7% titratable acid (Türkpatent, 2020a).

Emirdağ Sheep Yoghurt; it is produced by the traditional method from the milk of sheep fed in the natural environment in the villages of Emirdağ district of Afyon province (Mutlu and Sandıkçı, 2023). Yoghurt is produced by fermenting sheep's milk in local containers called bakrac (bucket containers) or helke by mixing a certain ratio of sheep yoghurt with warm milk. After 5-6 hours of fermentation, the yoghurt is served after resting at 4°C for about 48 hours. Emirdağ Sheep Yoghurt is a yoghurt with a high fat content, creamy color close to white, the smell of sheep's milk, a yellowish layer of fat on top and a very thick consistency (Fig. 5). This yoghurt contains 15-19% dry matter, 6-8.5% fat, 5.5-7.5% protein, 3.5-6.5% carbohydrate (Türkpatent, 2021b). Terzioğlu et al. (2023) also indicated that sheep yoghurt is rich in dry matter, fat and protein.

Ereğli Sheep Yoghurt; Ereğli Sheep Yoghurt, produced from sheep's milk in the Ereğli district of Konya province, is produced in two methods: traditional and industrial. The distinctive feature of this yoghurt is its burnt aroma. This aroma is obtained by putting the milk directly into boilers heated at high temperature. Ereğli Sheep Yoghurt is close to white in color (Fig. 6), with a moisture content of 75-85%, fat content of 6-13%, protein content of 5-10%, and acidity of 1-2% (Türkpatent, 2021c). Related studies reveal that sheep milk and yoghurt are rich in protein, essential amino acids and fatty acids (Boukria et al., 2020; Terzioğlu et al., 2023).

Eşmekaya Yoghurt; it is produced with the traditional method in Eşmekaya Town of Eskişehir district of Aksaray province. Eşmekaya is a destination with natural and rich vegetation located in the south of Tuz Lake (E-Aksaray Encyclopedia, 2021). Eşmekaya Yoghurt is produced in April, May and June from the milk of sheep grazing with endemic plants in the natural environment in the Tuz Lake Basin. After the milk is filtered twice, it is left to boil over low heat. The milk is stirred while it is boiling in order for the air vapor in the milk to be released and for the yoghurt to be thick and viscous. The fermentation process of this yoghurt, whose yeast is self-made, takes 5-6 hours. The yoghurt is served after resting in a cold environment for 6-8 hours. The protein content of this yoghurt, which is non-viscous and has a thick consistency (Fig. 7), is around $6.2 \pm 0.4\%$ protein and $8.5 \pm 0.5\%$ fat (Türkpatent, 2021d).

Kandıra Buffalo Yoghurt; it is a gastronomic product identified with Kandıra. It is produced with two different methods, traditional and industrial type, utilizing the milk of buffaloes in Kandıra district of Kocaeli province. In the yoghurt fermented with the traditional method, the remaining buffalo yoghurt, called black yeast, is used. Kandıra Buffalo Yoghurt is high in calcium, protein and fat. Produced from unskimmed milk, this yoghurt is hard and has a thick cream layer (Fig. 8). One kilogram of Kandıra Manda Yoghurt contains 3.5-5 mg. protein, 1650-2000 mg. calcium, 4-7.3 mg. fat, 4.5-6.5 mg. fat, 1.8-2.2 mg. sugar (Türkpatent, 2023).

Mamak Ravak Yoghurt; it is produced by fermenting cow's milk, which is processed with traditional methods specific to the geography of Mamak district of Ankara province, with yoghurt yeast known as *ravak yeast* in the region. In the production of this yoghurt, 2% of ravak yeast is used for 5 liters of milk. The average fermentation time is 4.5 hours. In order for the yoghurt to reach the desired consistency, it is recommended to rest for 3 days under refrigerator conditions after the fermentation process (Türkpatent, 2021e). This yoghurt has a porcelain white color, a distinctive taste and smell, and a thick and viscous texture (Fig. 9).

Silifke Yoghurt; Silifke Yoghurt is produced naturally without using any additives from the milk of the hair goat, which is fed with plants grown in high altitude forested areas in Mersin province Silifke district. It is a fermented product made from a mixture of 80% cow's milk and 20% goat's milk, fermented in pots or bakrac during periods when goat's milk is scarce. The dry matter, fat, protein and non-fat dry matter ratios of yoghurt made from plain goat milk are higher than yoghurt made from a mixture of goat and cow milk (Türkpatent, 2022a). Silifke Yoghurt is a viscous yoghurt due to its high dry matter and fat content and leaves a creamy sensation in the mouth. Since the size of the fat globules in goat's

milk is smaller than the size of the fat globules in cow's milk, yoghurt produced from plain goat's milk is whiter (Fig 10). On the other hand, the milk of Silifke Yoghurt produced with traditional methods has a incense flavor because it is boiled in a wood fire (Türkpatent, 2022a). However, this flavor cannot be achieved in industrial production. Some nutritional values of Silifke Yoghurt are given in table 1.

Table 1 Some nutritional values of Silifke Yoghurt

Components and % ratio	100% goat milk	20% goat milk + 80% cow milk
Dry matter	19-22	16-17.5
Non-fat dry matter	12.5-13.5	10-11
Protein	7.5-8.5	5.5-6
Fat	7-8.5	6.3-0.27
Lactose	2.5-3.5	2-3
Cinder	1-2	1.1-1.5
Acidity	1-1.2	1-1.2
pH	4.2-4.6	4.2-4.6

Source: Türkpatent, 2022a.

Silivri Yoghurt; it is produced in Silivri district of Istanbul province with cow, sheep, buffalo, 50% cow-50% sheep or 50% cow-50% buffalo milk (Türkpatent, 2022b). One of the distinguishing features of Silivri Yoghurt is that the milk is boiled several times in the yoghurt produced with sheep milk (Kırdar, 2022). While there are slight color changes depending on the amount of milk used, the yoghurt has a yellowish hue, a thick consistency and a rough, thick layer of cream on it (Fig. 11). The nutritional values of Silivri Yoghurt vary based on the type of animal from which the milk is obtained and the compound of the milk. The nutritional values of Silivri Yoghurt according to the milk types used in its production are given in table 2.

Table 2 Nutritional values of Silivri Yoghurt

Type of milk used	Minimum fat (%)	Minimum fat-free dry matter (%)	Minimum cream (g/1kg)
Cow	4	10	40
Sheep	5,5	12	50
Buffalo	6	11,5	70
%50 cow + %50 sheep	5	11	45
%50 cow + %50 buffalo	5,5	11	60

Source: Türkpatent, 2022b.

Çaycuma Buffalo Yoghurt; Çaycuma Buffalo Yoghurt, produced in Çaycuma district of Zonguldak province, is obtained from the milk of Anatolian breed buffaloes that have adapted to the natural climatic conditions of the district. What makes this yoghurt special is that the buffaloes in the region are fed in a natural environment with grasses in pastures that can remain green for 11 months of the year (Köktürk, 2023). Çaycuma Buffalo Yoghurt is a yellowish-colored viscous, thick, and fat product produced by traditional methods (Fig. 12). In the production process, the fermentation process is carried out in bakrac bakrausing buffalo yoghurt yeast. The components of this yoghurt are as follows: water 80-86%, dry matter 14-20%, fat 2-8%, protein 4-8%, lactose 4.2-5%, mineral matter 0.08-1.5%, acidity 0.9% (Türkpatent, 2020b).



Fig. 3: Afiyon Buffalo Yoghurt

Source: Türkpapatent, 2021a.



Fig. 4: Antakya Salty Yoghurt

Source: Türkpapatent, 2020a.



Fig. 5: Emirdağ Sheep Yoghurt

Source: Türkpapatent, 2021b.



Fig. 6: Ereğli Sheep Yoghurt

Source: Türkpapatent, 2021c.



Fig. 7: Eşmekaya Yoghurt

Source: Türkpapatent, 2021d.



Fig. 8: Kandıra Buffalo Yoghurt

Source: Türkpapatent, 2023.



Fig. 9: Mamak Ravak Yoghurt

Source: Türkpapatent, 2021e.



Fig. 10: Silişke Yoghurt

Source: Türkpapatent, 2022a.



Fig. 11: Silişke Yoghurt

Source: Türkpapatent, 2022b.



Fig. 12: Çaycuma Buffalo Yoghurt

Source: Türkpapatent, 2020b.

5. The Importance of Yoghurts with Geographical Indication in Türkiye in terms of Gastronomy Tourism

Yoghurts with geographical indication are special products that are produced in a specific geographical region and derived from components such as climate, soil structure, animal feed and processing techniques of this region. In other words, geographically indicated yoghurts have flavor, texture and nutritional values specific to the region from which they are obtained (Rangnekar, 2004). Geographically indicated yoghurts are also important with their traditional production methods and use of local raw materials. These products are generally obtained from the milk of animals raised in the region and fermented with traditional fermentation techniques. This process contributes to the yoghurt gaining a different value from other yoghurts in terms of aroma, consistency and taste (Ghasempour et al., 2020). At the same time, geographically indicated yoghurts also contribute significantly to gastronomy tourism. Offering advantages such as promoting local cuisine culture and offering different experiences, geographically indicated yoghurts can turn into a touristic value for people visiting the region (Haven-Tang and Jones, 2012). In this respect, people can organize tourism mobility in order to taste the yoghurts specific to a certain geographical region and discover the gastronomic diversity of this region (Leisen, 2001).

Considering that gastronomy tourism is not limited to eating and drinking experiences, it is also recognized that it allows visitors to get to know local culture, traditions and natural resources closely. Geographically indicated yoghurts can contribute positively to gastronomy tourism in terms of providing such experiences (Scarpato, 2003). On the other hand, yoghurts with geographical indication can also contribute positively to the local economy (Amadarshanie et al., 2022). The production and sale of these products can increase the income of local producers and allow local businesses to flourish. Increased gastronomy activities can also lead to social and cultural interactions (Navarro, 2012). As a result of social interactions, it may become possible to discover new markets. Production and marketing activities may increase in response to new demands related to visits (Suratno and Tanaka, 2004). Owing to the diversification of local activities, geographically indicated yoghurts may become recognized in different regions. In this context, geographically indicated yoghurts can also foster local economic development through gastronomy tourism (Sorcaru, 2019). The promotion and sustainability of the yoghurts protected through geographical indication can also prevent the loss of local flavors. It is seen that geographically indicated yoghurts are crucial for

gastronomy tourism in terms of providing gastronomic diversity and increasing tourism activities.

The provinces of Afyon, Aksaray, Ankara, Kocaeli, Konya, Konya, Mersin, Hatay, Hatay, İstanbul, Zonguldak, known for their geographically indicated yoghurts, can utilize these products to increase their competitiveness on a destination basis, strengthen their image, differentiate from their competitors, and develop their potential for gastronomy tourism. The use of gastronomic products in destination marketing activities, where yoghurt is both the main raw material and consumed alongside other dishes, will provide advantages to these destinations. Presenting yoghurt by integrating it with other gastronomic products specific to the region will make these destinations a center of attraction in the gastronomy tour routes to be devised. Yoghurts having an important place in Turkish cuisine culture and having geographical indication can be considered as important touristic gastronomic products that can make Türkiye stand out in the world.

6. Conclusion and Suggestions

The consumption of yoghurt, which has become one of the indispensable foods for a healthy life with its nutritional values, is rapidly increasing worldwide (Freitas, 2017). Besides, yoghurt, which offers rich options with different usage forms for people who want to taste different flavors, is culturally important as well as nutritionally. Its history and usage patterns in Turkish cuisine enhance the importance of yoghurt today and bring it to the forefront as a unique value of the cuisine culture. The fact that yoghurt, consumed throughout Türkiye as one of the traditional foods, has different production methods specific to each region and the local differences in its flavor have made it an inevitable necessity to take it under protection. With the studies initiated in Europe and Türkiye since the 1990s, gastronomic products with distinctive features have started to be protected through geographical indication practices. As of March 2024, the number of yoghurts registered with geographical indication in Türkiye was found to be 10 (Türkpatent, 2024). Owing to the distinctive features of yoghurts from different regions, these yoghurts have been registered and protected with geographical indication.

Products registered with a geographical indication represent the protection of all their features on behalf of the region where they are produced, and the protection of both culture and economic value is ensured in the meantime. The production conditions of yoghurt specific to a certain region lead to the differentiation of its taste and features and differentiate it from other yoghurts. Yoghurt, which has had an essential place in every stage of Turkish cuisine from past to present, can be regarded as having a complementary feature in terms of reflecting Turkish food culture. Yoghurt, which was one of the first staple foods of the Turkish society in the past,

has gradually become consumed in different forms alongside meals, plain, in desserts, over meals, etc. in most dishes specific to Turkish cuisine (Solmaz and Dülger Altiner, 2018). In this regard, the importance of yoghurt in Turkish cuisine culture has been highlighted in many academic studies (Güler, 2010; Dündar Arıkan, 2020; Süren and Kızıleli, 2021).

Yoghurt consumption in Turkish cuisine is high due to its use in the production and consumption of many nutrients and dishes. Yoghurt, which was spread to the world by the Turks, has been one of the nutrients consumed for both nutrition and health purposes. The registration of yoghurt, which is identified with Turkish cuisine and traditional tastes, with a geographical indication adds authenticity and different value to both the product and the region where it is produced. Studies demonstrate that yoghurt consumption is higher among people with higher education levels and socio-economic status, and that these people prefer yoghurt in terms of health (Fisberg and Machado, 2015). Furthermore, in the concept of experiencing different flavors and getting to know new cultures, these people demand unique products by participating in tourism movements. This constitutes an important potential for gastronomy tourism (Şen, 2023). Products registered with geographical indications are recognized on a global scale and their authenticity can be protected and their awareness can be increased. In this respect, yoghurts specific to Turkish cuisine registered with a geographical indication can pose a unique attraction factor specific to the region and can be an essential tool in gaining competitive advantage. Considering the advantages provided by geographically indicated products in the branding of destinations and the effectiveness of marketing activities on both national and international scales (Hadelan et al., 2021; Obradović et al., 2023), it is plausible to state that geographically indicated yoghurts specific to Turkish cuisine are an important tool for tourism marketing and development.

In Türkiye, it is remarkable that yoghurts with geographical indication are commonly found in Marmara, Western Black Sea, Central Anatolia and Mediterranean regions, whereas they are not found in other regions. On the other hand, in Eastern and Southeastern Anatolia, where livestock is the main source of livelihood, there are many local yoghurt types that can be registered with a geographical indication. However, it is noticeable that there is no yoghurt with a geographical indication in these regions. The reason for this deficiency may be the increase in awareness and awareness of geographical indication in recent years. The fact that none of the geographically indicated yoghurts have yet been registered by the European Union and registration applications have not been realized can be seen as another important deficiency. Indeed, the registration of traditional products such as yoghurt by internationally recognized organizations such as the European Union may attract more attention and increase their value and demand for the destination.

Hence, activities such as promotional activities to be carried out both nationally and internationally, academic studies, and registration procedures to be carried out by international official organizations can ensure the formation of a destination image and the development of international tourism. On a national basis, looking further into other yoghurts within the borders of the country that have the potential to receive geographical indication, academically researching them and highlighting their unique features are of significance for the economic development of the region and the development of gastronomy tourism. Additionally, how these yoghurts should be used to improve the image of gastronomy tourism and provide a competitive advantage can be addressed in future research.

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Implications for gastronomy

This international study has important implications for gastronomy. Yoghurt, one of the unique gastronomic products of Turkish cuisine with its unique flavors, is an important traditional food with its deep history, traditional production methods and nutritious food feature. Yoghurt can be described as a food consumed by many people today around the world, as it is nutritious and delicious, as well as healthy. However, yoghurts registered with geographical indication stand out with their different production techniques and taste specific to the region where they are produced. 10 yoghurts in Türkiye have been registered by the Turkish Patent and Trademark Office and are entitled to receive geographical indications. It is important to register these yoghurts with a geographical indication in order to preserve their unique properties, transfer them to future generations and increase the potential for gastronomy tourism. Examining the production techniques of these yoghurts, visiting the production points, and experiencing their flavors can be considered as a value that will increase the destination awareness of the region, and ultimately the country. Destination management organizations and marketers should consider yoghurt and gastronomic products consumed with yoghurt as an important tool in destination marketing. It is possible for gastronomy chefs to develop new culinary applications and products with geographically indicated yoghurts. Emphasizing the unique nature of these products to Turkish cuisine is important in terms of creating new gastronomy routes and differentiating Türkiye from its competitors.

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Chapter 6

Women Beyond the Rules: The Case of Antigone and Medea

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Abstract

Antigone, one of Sophocles' masterpieces, is a continuation of the Oedipus myth, drawing its subject from the legend of the Labdacus family. It deals with Antigone, caught between her beliefs and state authority, ultimately choosing her beliefs and rebelling against the state. Euripides, called 'the philosopher of the stage', staged *Medea* at the Great Dionysia festival and came third. Medea ran away with Jason years ago, abandoning her family. She enables Jason to achieve success, but Jason betrays her. Rather than accepting her fate, Medea defies society's expectations and rebels against the law by taking revenge on everyone she believes caused the end of her marriage and hurt her. This study offers a comparative analysis of the Ancient Greek characters Antigone and Medea within the context of the patriarchal order and societal expectations of women. It examines how these women rebelled against the established order and transcended the existing system.

Key Words: Antigone, Medea, tragedy, rebellion, women.

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Kuralların Ötesinde Kadınlar: Antigone ve Medea Örneği

Öz

Antik Yunan Tragedya yazarlarının başında gelen Sophokles'in ustalık eserlerinden olan, konusunu Labdakos ailesinin efsanesinden alan *Antigone* Oidipus efsanesinin devamı niteliğindedir. Oyun, inançları ile devlet otoritesi arasında kalan Antigone isimli kadın kahramanın inançlarını seçerek devlet otoritesine baş kaldırışını ele alır. Önde gelen Antik Yunan Tragedya yazarlarından bir değeri olan Euripides çağdaşları tarafından 'sahnelerin filozofu' olarak adlandırıldı. Euripides *Medea*'yı Büyük Dionysia bayramında sahneler ve bununla üçüncü olur. Medea, yıllar önce babasını ve ailesini terk ederek Jason'a kaçır. Güçlü ve zeki bir kadın olan *Medea* Jason'ın büyük başarılar elde etmesini sağlar fakat Jason ona ihanet eder. Medea, kaderine razı olmak yerine evliliğinin bitmesine sebep olduğunu düşündüğü ve canını yakan herkesi kendi eliyle cezalandırarak toplumun beklentilerini alaşağı eder ve yasalara baş kaldırır. Bu çalışmada, Antik Yunan karakterleri Antigone ve Medea'nın ataerkil düzen ve toplumun kadından beklentileri bağlamında karşılaştırmalı analizi yapılmıştır. Bahsi geçen kadınların kurulu düzene nasıl karşı çıktıkları ve mevcut sistemin ötesine geçtikleri incelenmiştir.

Anahtar Kelimeler: Antigone, Medea, tragedya, baş kaldırır, kadın.

Introduction

In his work *Poetics*, Aristotle says that tragedy aims to make a person experience catharsis; it is to imitate an action by using various languages, not through people or narrative, but through behaviors (1984, 2320). Tragedies convey tragic events in life through art. The play's characters are gods, goddesses, or upper-class members. There is an emphasis on issues such as virtue and morality. Ancient Tragedy is a type of play that emerged in ancient Greece, and its primary purpose is to reflect society and question moral dilemmas. Greek Tragedy was a popular genre performed on Greek stages in the 6th century BC. Euripides and Sophocles are the leading playwrights of this genre. In the tragedy genre, women are generally in the background; they are passive and carry the role of victim. Euripides' *Medea* and Sophocles' *Antigone* are exceptional figures in that they go beyond these expectations and break the roles assigned to them. Unlike women who are passive, obedient, and stay in the background to meet social expectations, *Medea* and *Antigone* stand out as characters who make their own decisions and take action. According to Martens (2018), both women have many characteristics that a hero should have, such as courage, faith, and determination.

Euripides' *Medea* deals with the anger, revenge, and justice a woman experiences after being betrayed by her husband. *Medea*, a princess from Colchis, is abandoned by her husband Jason. Jason marries the daughter of Creon, the king of Corinth, for a better social status and economic comfort. *Medea*, who left her family and homeland for Jason years ago and has no one but Jason, does not accept the betrayal she has experienced. She refuses to be a "silent, submissive woman" and all the rules that the male-dominated society that sees women as the other tries to impose. Creon, aware of *Medea*'s intelligence and power, exiles *Medea* out of fear of what she will do. However, *Medea* acts cunningly and asks for a day to recover. During this time, she takes revenge in the most brutal way possible by using her intelligence, strength, and will. First, she sends poisoned gifts of gold and precious stones to her husband's new wife, causing the death of the woman and her father. Then, just to make her husband suffer, she kills her own children. She is so angry that she will suppress her pain by seeing her husband suffer. This action is the clearest and most radical response to her husband, Jason, and the male-dominated order. At the end of the play, *Medea* escapes in a flying chariot pulled by winged snakes sent by her grandfather, the God Helios.

Antigone, Sophocles' play about the conflict between individual conscience and the state, is a classic Greek tragedy. The play questions law, morality, and the

place of women in society. The play begins with Oedipus' two sons killing each other due to their struggle for the throne. The new king of the country, Creon, buries Eteokles, one of the brothers, but says that he will feed Polyneices' body to animals and will not bury him, because he is a traitor. He also states that all the people must respect this decision. This king's action contradicts Greek culture's respect for the dead and the sacredness of burial rituals. Oedipus' daughter Antigone does not accept this decision and decides to bury her brother Polyneices despite Creon's order. Because she believes that the laws of God are superior and more sacred than the laws of the state, Creon learns that Antigone is trying to bury her brother by breaking this law, and sends her to a cave where no one goes to die. Creon's son, Haemon, also Antigone's fiancé, tries to dissuade his father from this decision, but he fails. The blind prophet of the city, Teireisas, tries to warn Creon; Creon does not listen to him either. Antigone commits suicide in the cave she is locked in, and Haemon sees this and also commits suicide. Eurydice, who learns that her son is dead, ends her life.

Both Medea and Antigone are different in that they are "extreme", "dangerous," and "unusual" women for the period in which they were written. This is the first time women have drawn such a powerful image in classical theatre. The effects of these works have lasted for centuries because they are beyond expectations. Medea and Antigone are mythological and symbolic characters in that they go beyond the rules and make women's voices heard.

"Beyond the rules" refers to social norms, laws, and moral acceptances. Being "beyond" means they transcend and rewrite all these laws, standards, and acceptances. The expression in question describes women going beyond all expectations imposed on them and advancing on the individual path they have drawn for themselves. Antigone and Medea do not only exist with their feminine roles, but also stand out as figures who reject the established order. The purpose of this article is to analyze the resistance of the characters Medea and Antigone against the patriarchal order in the light of law, morality, and the expectations of society.

Medea: Betrayal, Revenge, and Female Rage

Medea is a figure of mythological origin. She has survived to the present day as one of the leading figures of Greek mythology (Smit 2002, 101). She is the daughter of Aietes, the king of the country of Colchis, and the granddaughter of the Sun Titan Helios. One of the most striking Greek mythology characters, Medea, is famous for her witchcraft according to a popular narrative; she knows

healing herbs and spells quite well (Mythological Stories, n.d., author's translation).

At the legend's beginning, Medea is described as a lover who helps Jason steal the Golden Fleece. In this respect, she draws a good and sympathetic image. However, in the later parts of the play, she turns into an angry woman who does not hesitate to kill her children with her own hands out of revenge (Clauss and Johnston 1997, 5). In this respect, it can be said that Euripides transformed Medea masterfully. Looking at the play as a whole, Medea is neither the heroine nor the victim; there is a complex and multi-layered situation. Being depicted as both a perpetrator and a victim places Medea in a very special place in the classical tragedy structure. Throughout the tragedy, the character increasingly embraces the roles identified with men. She makes decisions, plans strategies, and tries to establish power. Conflicting with the roles assigned to women by society, Medea virtually shatters the roles of woman, wife, and mother. These words of a character in the play, the nurse, are a reflection of the patriarchal perspective of society: "*There is no greater security than this in all the world: when a wife does not oppose her husband*" (Euripides 2008, 4). The perspective of the male-dominated society, which equates women with the concept of evil and argues that their existence is unnecessary, is conveyed in Jason's words: "*The whole female race should not exist. It's nothing but a nuisance*" (Euripides 2008, 25). According to Durham (1984), in Euripides' play, female characters have adopted the negative image that men have created for themselves (56). After being abandoned by Jason, Medea, whose role as a wife has ended, also ends her role as a mother by killing her children. She reveals her individual existence and will by rejecting every role that society expects women to do and every identity they expect them to carry. Aware of the degrading position women are in, Medea says: "*Of all the living creatures with a soul and mind, we women are the most pathetic. First of all, we have to buy a husband: spend vast amounts of money, just to get a master for our body—to add insult to injury*" (Euripides 2008, 12). She mentions that women have to accept every condition and situation unconditionally and that they are considered to be at fault when they divorce: "*If a woman leaves her husband, then she loses her virtuous reputation. To refuse him is just not possible*" (Euripides 2008, 12).

Medea is not obedient to justice and law; she decides to provide her justice. Medea gives a clue that what she will do as a woman who has been betrayed is limitless with the following words: "*when she's faced with an injustice in the bedroom, there is no other mind more murderous*" (Euripides 2008, 13). She acts outside of state laws and royal authority, and takes her revenge with an individual

sense of justice, not divine. She mentions that women are masters when it comes to evil: "*for malice, though, our wisdom is unmatched*" (Euripides 2008, 19). Medea decides to commit this massacre because she thinks that the only way to hurt her husband is to kill her children (Euripides 2008, 36- 37). Medea uses her anger like a weapon; it is a way for her to cope with the system, patriarchal belief and her husband's betrayal. Their quest for revenge is a result of both their individual anger and their efforts to destroy the approach that the current system imposes on women.

Antigone: Moral Resistance and Civil Disobedience

In Sophocles' *Antigone*, the conflict between law and morality arises. There is a tension between the state law (nomos) established by King Creon and the divine law (dike) defended by Antigone. "*It was not Zeus who published this decree, Nor have Dike. Imposed such laws as this upon mankind; Nor could I think that a decree of yours— A man—could override the laws of Heaven. Unwritten and unchanging*" (Sophocles 1998, 32-33). Despite everything, Antigone's burying her brother's body is considered a crime according to the law, but a virtue from a moral perspective. When the end of the play is considered, it can be said that Sophocles presents this conflict as an event with no winner. According to Hegel, Greek tragedy consists of an absolute in which both sides are right, rather than a conflict between good and evil. The best example is *Antigone*, between conscience and law (Conversi & Sewall n.d.). Antigone's actions are not simple acts of brotherly love but result from her obedience to the divine order and her beliefs. "*I shall bury him. And if I have to die for this pure crime, I am content, for I shall rest beside him; His love will answer mine*" (Sophocles 1998, 25).

Antigone is suppressed twice because she is a woman. Antigone, who is already restricted as an individual, is once again restricted by the authority in her sphere of speech and action because she is a woman. Although they come from the same family and blood, significant differences exist between her and her sister Ismene. While Antigone does not hesitate to defy authority and the state for the sake of justice, Ismene thinks that she must obey because she is a woman. "*Remember too that we are women, not made to fight with men*" (Sophocles 1998, 24). When Antigone asks Ismene for help burying her brother, Ismene refuses to help. "*I yield to those who have authority; For useless meddling has no sense at all*" (Sophocles 1998, 24). The people sympathize and pity Antigone because of this behavior. After Antigone's punishment, Creon's son, Antigone's fiancé Haemon, says to his father: "*So they are saying, 'so undeservedly Has been*

condemned for such a glorious deed" (Sophocles 1998, 38). Thus, Antigone's opposition to the state is legitimized by family loyalty and divine obligation. Antigone's unhesitating attempt to make her own voice heard in the world of men and taking action indicates her coming out into the public sphere and becoming a political subject. *"Let me be, Me and my folly! I will face the danger That so dismays you, for it cannot be So dreadful as to die a coward's death"* (Sophocles 1998, 25).

When interpreting Antigone as a revolutionary figure, what is meant is not lawlessness, because she is committed to a different, divine understanding of justice. However, her risking death does not show her obedience; it makes her a figure of resistance, acting with her conscience. What is tragic here is that Antigone is left alone for the values she believes in, is punished and left to die, but this loneliness does not drag her down; on the contrary, it elevates her to a sublime position. Her death by suicide is an indication that she has chosen death as a space of freedom. Living means compromising her beliefs. Therefore, her death by suicide can be read as a rebellion that does not surrender herself to the state. She makes an honorable choice in that she chooses death for the moral truths she believes in instead of the laws imposed on her.

Conclusion

The female protagonists of the two works share common characteristics in terms of their resistance to the patriarchal order, their illegal actions, and their isolation as a result of these actions. Antigone and Medea are women who do not recognize the rules of the male-dominated society and who engage in illegal actions. By killing her children, Medea breaks a social and biological taboo. By burying her brother, Antigone violates the king's prohibition and rebels against the law. As a result of her action, Medea is ostracized by both her beloved husband Jason and by society. Antigone, on the other hand, does not accept the support of even her sister Ismene and prefers to die alone. When evaluated from this perspective, both characters are in the position of women who pay the price.

The two women differ in terms of their internal motivations. Medea was betrayed and seeks revenge. She feeds her revenge with her anger. The emotional trauma, jealousy, and anger she experiences turn into uncontrollable violence. Antigone's source of motivation is her moral responsibility and loyalty to divine law. She believes that there is a truth beyond state law and acts by this truth.

Medea is a figure who is evaluated as cruel, ostracized, and humiliated by society as a result of her actions. While at first she plays the role of a victim as a woman who is deceived and loves too much, after the murders she commits, she

becomes the perpetrator. She commits masculine acts that society does not associate with femininity and becomes subjective. Antigone is a character who disobeys the state's laws but is loyal to family ties and divine rules. She rebels against the male-dominated order and becomes subjective. Two characters stand out in the tragedy as women who become subjects of their conscious actions. Traditionally, women in tragedy are either victims or instigators of events. In this respect, Medea and Antigone manage to go beyond this definition. Medea rejects motherhood by killing her own children. Antigone exhibits a maternal approach due to her loyalty to her brother. In this respect, the concept of motherhood is redefined biologically, morally, and emotionally.

These figures, who have literary and political aspects, are outside the usual, socially accepted definitions of femininity. Rather than breaking the laws, they are women who offer alternative systems to the established order and search for new rules. In terms of their differentiation from others, they have caused the rewriting of female characters in literature. These characters are symbols that affect the narrative forms of the ancient era and today's women's struggles. Antigone and Medea have managed to transcend classical tragedy and settle at the center of contemporary literature. They have shown that the representation of women who are not accepted by society and do not comply with the rules can be rewritten not as criminals but as individualized literary subjects.

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Chapter 7

From Neoliberalism to Strategic Interventionism: New Forms of Interventionism in the Global Economy

Okan ŞENOL ¹

The first quarter of the twenty-first century has been a period in which the structural limits of global capitalism and the role of the state in the economy have been reexamined. From the 2008 global financial crisis to the COVID-19 pandemic, from disruptions in supply chains to the energy crisis, this era has weakened the neoliberal assumption of a “market-based spontaneous equilibrium,” thereby paving the way for the state to reemerge as an economic and strategic actor. In this context, the state is no longer perceived merely as a regulator that compensates for market failures but as a constitutive force that transforms production structures, directs technological capacity, and ensures social stability.

This transformation manifests itself in different forms across countries that occupy different positions within the global economy. In core countries, the market economy that historically evolved under the guidance of the state is undergoing a renewed transformation, whereas in semi-peripheral countries, a process of controlled market economy has emerged—one shaped by state interventions as a response to the liberalization of international trade. Accordingly, this study examines the core countries—the United States, the United Kingdom, France, and Germany—and the semi-peripheral countries—Russia, China, and Turkey. Although these countries have been shaped by distinct historical experiences within the capitalist world economy, they collectively exemplify the contemporary fluidity between free-market systems and state capitalism. Therefore, this study aims to reveal both the spatial and structural diversity of the state’s economic functions and the common global tendencies and fluctuations that accompany them.

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The Competition Between Neoclassical and Keynesian Thought After the 1960s

During the late 1950s and throughout the 1960s, Keynesianism reached the height of its influence over economic thinking. Across Western economies, the post–World War II adoption of the mixed economy model—where private enterprise drove growth while the state actively guided macroeconomic management—yielded strong results in both output and employment. In this era, fiscal spending, taxation, and monetary policy were regarded as the key levers for sustaining aggregate demand. At the core of Keynesian theory lay the pursuit of full employment, with government intervention seen as fundamental to maintaining overall economic stability.

However, the stagflation of the 1970s began to cast doubt on the effectiveness of Keynesian policies. This crisis paved the way—both theoretically and politically—for the resurgence of neoclassical thought. Neoclassical economists argued that state interventions distorted markets and that the price mechanism should be allowed to function freely. Milton Friedman’s monetarist approach claimed that increases in the money supply directly caused inflation, thereby contending that the state should limit its role to monetary policy rather than engage in active fiscal intervention.

Throughout the 1970s and 1980s—most notably under the Reagan administration in the United States and the Thatcher government in the United Kingdom, both firm proponents of free-market principles—the neoclassical paradigm rose to dominance. In this period, the activity and power of the state in the economy was curtailed, privatization efforts accelerated, and deregulation measures paved the way for the liberalization of capital flows (Harvey, 2005). Neoclassical economics, grounded in the assumption that individuals make rational decisions and that markets naturally tend toward equilibrium, posited that state intervention distorts resource allocation. This view can be summarized in the maxim “the market knows best.” Nevertheless, the financial crises and rising income inequalities of the neoliberal era revealed the limitations of a pure free-market approach. Consequently, the idea of a mixed economy regained momentum. During this period, calls for the state’s reemergence as a guiding and regulatory force within market processes began to intensify. (Stiglitz, 2002; Rodrik 2007).

During this period, there also emerged a need for the economic literature to explain the policies adopted in the real economy. At this juncture, “New Keynesian Economics”—a modern branch of the Keynesian school—came to the fore. Unlike classical Keynesianism, the New Keynesian approach was grounded in microfoundations and emphasized that markets do not always reach equilibrium due to factors such as wage rigidities and information asymmetries (Mankiw, 1985). As a result, the perspective that the state must remain actively engaged not only in times of crisis but also in safeguarding long-term economic stability gained renewed

momentum. Meanwhile, neoclassical economics evolved through new growth theories centered on technological progress and human capital (Romer, 1990), thereby transforming from a pure laissez-faire model into a more institutionally embedded market framework. Compared to the sharp ideological swings of 1870–1910 and 1910–1950, this new era fostered the emergence of alternative economic paradigms positioned between opposing schools of thought.

Strategic Interventionism: A New Paradigm of the State?

The criticisms directed at the neoliberal paradigm following the 2008 global financial crisis revitalized the literature on the “return of the state.” This return, however, does not reflect a revival of classical interventionism alone but points to a more proactive and directive model of state involvement, often referred to as “strategic interventionism.” The concept denotes an approach in which the state not only corrects market failures but also shapes the direction of markets themselves.

The notion of strategic interventionism was revived and elaborated in the works of Mariana Mazzucato, who redefined the state’s transaction creating power in economic activity. According to Mazzucato, the state is not a passive regulator seeking merely to correct market inefficiencies but an entrepreneurial actor that takes risks, sets directions, and fosters innovation. In this sense, strategic interventionism entails the state setting long-term goals in specific sectors—such as renewable energy, health technologies, or digital transformation—allocating resources, investing in R&D, and mobilizing the private sector toward these objectives. Mazzucato’s perspective constitutes a direct critique of the neoliberal notion of the “minimal state” and posits that the public sector possesses not only a corrective but also a market-creating capacity. Therefore, strategic interventionism emerges as a policy orientation that underscores the leading role of the state not only during crises but also throughout structural transformation processes (Mazzucato, 2013, 2018).

A closely related concept that emerged during the same period is “strategic selectivity.” Developed within Bob Jessop’s strategic-relational theory of the state, this concept argues that the state is not a structurally neutral apparatus but a set of institutional arrangements that afford particular actors, strategies, and interest groups greater advantages than others. According to this approach, the institutional configurations, discursive frameworks, and historical evolution of the state facilitate certain political-economic strategies while constraining others. Thus, even when the state does not directly intervene in processes of capital accumulation, it creates a selective environment that shapes them. Strategic selectivity provides a powerful analytical tool for examining neoliberal restructuring, scalar transformations of the state, and conflicts among capital fractions (Jessop, 2001). In this context, the state should be understood not merely as a regulator of economic processes but as an

active actor that delineates the boundaries of which economic strategies are deemed possible and legitimate.

Country-Based Economic Approaches

During the eighteenth and nineteenth centuries, while global economic thought transitioned through mercantilism, liberalism, and Keynesianism, national economies did not entirely abandon the political-economic trajectories formed through their own historical processes. Although this period witnessed the expansion of international trade, the establishment and growing influence of global economic institutions, and the worldwide circulation of money and capital, countries did not remain outside prevailing global trends. Nevertheless, within national markets and domestic economic relations, each country's development reflected its own internal dynamics and the continuation of its historical evolution.

United States

The economic history of the US has evolved as a cyclical process in which the division of roles between the state and the market has been periodically redefined. In the country's founding period, Alexander Hamilton's state-led approach to promoting industrialization prevailed over Thomas Jefferson's agrarian liberalism. In the nineteenth century, liberal market capitalism and large corporate interests came to dominate; in response to monopolistic tendencies, the state assumed a regulatory role through the Sherman and Clayton Acts. The Great Depression of 1929 institutionalized the interventionist identity of the state during the New Deal era, focusing on social welfare and employment.

United Kingdom

In England, the mercantilist period represented an era of economic nationalism, characterized by state-directed trade, colonial expansion, and protectionist policies. In the nineteenth century, influenced by the industrial bourgeoisie, liberalism and free trade became dominant. After World War II, Keynesian welfare-state policies were implemented; however, following the stagflation of the 1970s, the Thatcher era brought a neoliberal transformation in which privatization and deregulation redefined the state profile in the economy. In the 1990s, Tony Blair's "Third Way" sought a balance between market efficiency and social justice (Heckscher, 1931; Magnusson, 2002; Kindleberger, 1975; Giddens, 1998).

France

In France, the notion of dirigisme embodies the state's directive function, originating from the mercantilist policies advanced by Jean-Baptiste Colbert in the seventeenth century. After World War II, a planning-oriented mixed economy was established. The state assumed an active role in strategic industries, attaining remarkable growth between 1945 and 1975. Dirigisme formalized a interdependent partnership between the state and the free market actors, positioning the state—

acting as an “engineer-state”—as the central force directing economic development. (Kuisel, 1981; Monnet, 1978; Hall, 1986).

Germany

In Germany, ordoliberalism emphasizes the state’s strong authority in maintaining a competitive market order. Founders of the ordoliberalism argued that markets cannot generate self-sustaining order. The state’s task is not to manage economic processes directly, but to construct the institutional framework that ensures competition. Thus, economic freedom is defined as “regulated freedom.” Ordoliberalism holds that the stability of liberalism is possible only through a strong and law-bound state (Bonefeld, 2012; Eucken, 1951; Rüstow, 1942; Röpke, 1951).

Russia

Russia’s tradition of state-led development has, since the eighteenth century, been shaped by an authoritarian state structure that organized capital accumulation “from above.” Following the 1917 Revolution, a planned economy was established through the nationalization of the means of production. Although Lenin’s New Economic Policy (NEP) introduced partial market mechanisms, Stalin’s era was characterized by centrally planned heavy industrialization. The planned economy became a tool of political control rather than economic rationality. The Perestroika reforms of the 1980s failed to overcome bureaucratic stagnation, ultimately leading to systemic collapse (Gerschenkron, 1962; Figes, 1996; Carr, 1969; Nove, 1969; Davies, 1998; Conquest, 1986; Kornai, 1992; Ellman & Kontorovich, 1998).

Turkey

The origins of Turkey’s political economy lie in the Ottoman-era notion of Milli İktisat (National Economy), which promoted state-driven industrialization and the development of a domestically rooted bourgeoisie. In the early Republican period, the state assumed a regulatory role, and following the Great Depression of 1929, etatism (state capitalism) was adopted. Industrialization was carried out through state enterprises such as Sümerbank and Etibank, institutionalizing the protectionist and developmentalist aspects of the National Economy ideology (Kazgan, 1997; Gilpin, 2011; Keyder, 1998; Öztan, 2005; Pamuk, 2009; Toprak, 2000; Ökçün, 1997; İnel, 1983; Boratav, 1982; Kepenek & Yentürk, 2001; Kongar, 1995; Kuruç, 1988; Keyder, 1999; Tokgöz, 2007; Tekeli & İlkin, 1982; Boratav, 1983b; Berkes, 1975).

China

China’s political economy is rooted in the socialist planning model established after 1949. During Mao Zedong’s era, collectivization and central planning dominated, but the “Great Leap Forward” and the “Cultural Revolution” undermined economic productivity. Beginning with Deng Xiaoping’s reforms in 1978, market mechanisms were gradually introduced, leading to liberalization in agriculture,

industry, and foreign trade. While the state maintained its dominance in strategic sectors, by the 2000s China had integrated into the global capitalist system under the model of a “socialist market economy” (Fairbank & Goldman, 2006; Feuerwerker, 1983; Naughton, 2007; Ashton et al., 1984; Riskin, 1987; Lin, 1992; Huang, 2008).

Post-2010 Period

The economic fluctuations that began with the 2008 financial crisis and continued through the 2019 pandemic period compelled countries integrated into the global economy—but experiencing volatility in their national economies—to adopt a series of measures. As a result, state intervention in the economy became inevitable, while some countries utilized these processes as opportunities to restructure and transform their economies. At the same time, state authority began to implement policies not solely aimed at economic intervention but also intended to redefine the dynamics between the state and the economic environment.

Consequently, during the post-2010 period, the presence of the state in national economies evolved beyond its traditional regulatory and supervisory roles, taking on the characteristics of active interventionist policies. Public–private investments, and thereby the relationships between the state and capital, have sought to revive economic growth, which had shown a tendency to decline during this period.

Tablo 1: Growth Rates of Countries per Decade

Country	1970s	1980s	1990s	2000s	2010s	2020s
China	7,4	9,8	10,5	10,4	7,7	4,9
Germany	3,3	2	2,7	0,8	2	0,1
France	4,2	2,4	2,6	1,6	1,5	0,9
United Kingdom	2,7	2,7	2,6	1,8	2	1
Russia			-5	5,5	2,1	2,1
Turkey	4,8	4,2	4,1	4,1	5,9	5,5
USA	3,3	3,2	3,6	2	2,4	2,5

Source: World Bank

United States

The U.S. economy after 2010 marks a phase in which the state’s role was rearticulated, and the limits of the traditional liberal market framework were broadened. Following the 2008 global financial crisis, the state moved from a passive regulatory position to become an active coordinator and stabilizing actor in the economy (Stiglitz, 2013). This transformation was shaped not as a temporary intervention specific to the crisis period, but as part of the state’s long-term economic

vision. Beyond stabilizing the financial system, the state assumed a directly guiding role in strategic sectors, supported innovative technologies, and sought to improve income distribution.

During the Obama administration (2009–2016), the first clear examples of this approach emerged. 2009 reinvestment package aimed to stimulate the economy through public spending, infrastructure investments, and support for green energy. While encouraging private-sector investment decisions, the state simultaneously expanded social policy instruments to protect labor markets and social welfare (Friedman, 2011). In this period, accelerating innovation through public investments and incentives in the technology and energy sectors became a core component of economic recovery. Thus, the state not only corrected market failures but also assumed a planning role that directed the transformation of the economic structure.

Following 2016, under the Trump administration, the orientation of the state's economic role was reinforced in a distinct way. Guided by the "America First" agenda, trade balance and industrial output emerged as key priorities, with the state reclaiming a central position in industrial policy through the implementation of tariffs and incentives aimed at promoting domestic production (Rodrik, 2018). In this period, state protectionism in sectors such as steel, automobiles, and semiconductors drew particular attention; the neoliberal understanding of globalization began to give way to a "selective national economy" approach. This marked a gradual departure from the free-trade principle long advocated by the U.S., signaling a new era in which the state directly supported strategic production domains.

In the period after 2020, the COVID-19 pandemic further strengthened the state's position in the economy. To mitigate the pandemic's social and economic impacts, massive fiscal packages were implemented. These policies led to an unprecedented increase in public spending in U.S. history. At the same time, the disruption of global supply chains prompted the state to refocus on strategic autonomy and production capacity. The Biden administration's acts, launched in 2022, institutionalized the state's economic steering capacity through large-scale public support for green energy, semiconductor manufacturing, and scientific R&D.

Taken together, recent policies reveal that, in the post-2010 U.S. economy, the state's role evolved from "regulatory" to "strategically directive." This evolution unfolded under the pressures of financial crises, global competition, and technological transformation. Without dismantling market mechanisms, the state assumed the function of making them more resilient and inclusive. Consequently, the post-2010 U.S. economy can be characterized by an economic model that goes beyond the classical free-market paradigm—one grounded in public-private

cooperation and aimed at simultaneously strengthening social welfare and technological capacity.

United Kingdom

The period after 2010 in the United Kingdom combines multiple, and at times conflicting, tendencies. However, starting in the mid-2010s, governments began formulating new industrial strategies to address the structural challenges arising from the process of “demarketization”. Prolonged contractions in social services, local government budgets, and public investment affected the capacity of the public sector. Nevertheless, from the mid-2010s onward, governments began to develop new industrial strategies in response to the structural problems generated by “demarketization.” As the state increased its supportive role for specific technological and sectoral targets (artificial intelligence, clean energy, advanced manufacturing, etc.) and engaged in active planning in R&D, investment, and skills, public authorities relatively expanded their role in the economy. Thus, in the post-2010 period, the state in the UK simultaneously narrowed the public realm on grounds of fiscal discipline while increasing selective interventions to strengthen strategic capacities.

Moreover, the pandemic and energy/supply crises that followed the 2010s further diversified the nature of state intervention. As seen in the furlough scheme implemented during the pandemic, the government provided extraordinary fiscal support to protect employment and prevent firm bankruptcies. The program enabled the state to cover a portion of the wages of millions of workers and stood out as a large-scale intervention in budgetary terms. Similarly, during the energy price crisis and supply chain disruptions, governments implemented temporary support packages and measures aimed at stabilizing markets. These interventions demonstrated that, even with “tight budgets,” the state could once again intervene strongly and directly when necessary.

Finally, experiences from financial crises also led to the state’s “involuntary” use of ownership. The state’s intervention capacity was underscored during the 2007–08 banking crisis by the nationalization of Northern Rock and the public capital injected into RBS, illustrating the critical role of emergency instruments such as temporary nationalization, capital infusions, and guarantee schemes in responding to market breakdowns. These experiences became reference points both for subsequent financial regulation and for building crisis-response capacity in the following decades.

France

In the period after 2010, under the influence of global economic crises, geopolitical competition, and technological transformation, a new form of statism emerged in France that can be described as neo-dirigisme. Unlike classical dirigisme,

neo-dirigisme emphasizes the state's strategic, guiding, and coordinating role rather than its direct producer or ownership role. This transformation can be summarized by three main factors: (i) the re-legitimation of the state after the global financial crisis; (ii) the pursuit of strategic autonomy within the European Union; and (iii) the need to coordinate sector-specific green and digital transformation policies.

In this context, France launched the “New Industrial France” program in 2013. The program targeted public support for 34 priority sectors, notably robotics, biotechnology, energy efficiency, and smart mobility. With the COVID-19 outbreak, supply-chain dependencies and strategic production security came to the fore, and the state's guiding role over the economy was reasserted. The “France Relance” and “France 2030” plans initiated in 2021 reestablished the state's active investor role in digital infrastructure, green energy, and innovative industrial production.

In this recent phase, referred to in the literature as neo-dirigisme, public authorities in the French economy adopt a sectoral and micro-level objective of developing and expanding relevant markets, rather than renewed hierarchical and centralized planning characteristic of the classical period. The state encourages public-private partnerships, leads R&D investments, and maintains the competitiveness of national champion firms in strategic sectors (e.g., Airbus, Safran, EDF). The result is a state model that strongly guides in harmony with market mechanisms.

Germany

Following the 2008 global financial crisis, the economic role of the state in Germany was once again a subject of debate. The crisis weakened the belief in the free market's capacity to maintain its own equilibrium and granted legitimacy to strategic state intervention. In the period after 2010, while preserving neoliberal policies, Germany adopted a selective interventionist approach. This new orientation has increasingly been labeled in the literature as the “neo-developmental state” (Schmidt & Thatcher, 2013).

During this period, Germany reinforced the state's guiding role particularly in Industry 4.0, the green energy transition (Energiewende), and domains of strategic technological sovereignty. The federal government increased R&D funding in line with goals of digitalization and a carbon-neutral economy, supported public-private partnerships, and sought to preserve national competitiveness in high-technology sectors. The state also turned to direct intervention in critical sectors in the face of energy crises and supply-chain disruptions. For example, during the 2022 energy crisis, the nationalization of Uniper demonstrated that Germany could once again resort to state ownership to ensure market stability.

In this period, Germany's understanding of the state moved beyond the classical “regulatory state” model. The state not only protected market rules but also became

an actor that set strategic objectives such as green transition, digital security, and industrial sovereignty. In this context, the German economy adopted smart interventionism under conditions of global competition and adapted the social market economy to contemporary requirements (Blyth & Matthijs, 2017).

Russia

From the early 2000s, particularly during Vladimir Putin's tenure, the state again became a powerful actor in Russia's economic life. Under Putin, state ownership increased in strategic sectors such as finance, energy, transportation, and media (Åslund, 2014). During this process, the state created vertically integrated "national champions"; giant state-owned enterprises such as Gazprom, Rosneft, Rosatom, and Sberbank came to occupy the center of economic power. The nationalization of another sectoral giant, Yukos, strengthened the state's dominance over private property (Åslund, 2007). As of 2015, approximately 55% of the economy had come under state control, and 28% of the labor force was employed directly in the public sector (Aven, 2015). At this stage, economic steering through state-backed investment vehicles was strengthened once again. This model is frequently described in the literature as state capitalism, in which political centralization and the economy are deeply intertwined.

Western sanctions in 2014 and subsequent geopolitical tensions pushed Russia toward import-substitution policies and a quest for strategic autonomy. The state responded with localization programs against technological dependencies, preferential policies in public procurement, and capital allocation in strategic sectors. Large-scale state programs such as the National Projects announced in 2018 aimed to increase direct public investment in areas such as health, education, infrastructure, and technology, and were presented as long-term growth strategies. Yet these patterns in the Russian economy seem to derive more from attempts to consolidate political authority than from genuine sectoral advancement or economic coordination, thereby strengthening the state's dominance within the economy and amplifying the advantages enjoyed by interest groups aligned with public power. The transformation of interventionism in Russia can be assessed along three main axes: (i) structural legacy (institutional remnants of the planned economy and public-sector culture); (ii) shifts in property regimes (oligarchic structures created by the privatization experience of the 1990s); and (iii) current geopolitical-economic conditions (energy prices, sanctions, global supply-chain disruptions). In the post-2010 period, the state has sought to steer the economy through more professional instruments (public banks, state-owned enterprises, national projects, import-substitution programs).

Turkey

The structural reforms implemented after the 2001 crisis and the European Union harmonization process of the 2000s made the state's role in Turkey more predictable and market-friendly. However, similar to global trends after the global crisis, the post-2010 period in Turkey initiated a “new statism” in which the state once again assumed an active role in the economy (Yeldan, 2020). In this new period, state intervention did not rest on classical public ownership but on mechanisms that were directive and financially supportive in strategic sectors. State-backed projects and public–private partnership (PPP) models came to the fore particularly in the defense industry, energy, transportation, construction, and high-technology sectors. Unlike the neoliberal era's understanding of the “regulatory state,” this brought selective industrial policies back onto the agenda. In the post-2010 Turkish economy, the state's role transformed markedly. The state moved beyond its classical regulatory role and once again became active—assuming the position of investor, financier, and guide. The liberal market-based structural reform approach adopted in the early 2000s gradually gave way, from the 2010s onward, to a more interventionist, centralized, and politically aligned economic governance (Öniş & Kutlay, 2020).

In this period, the state's economic role was shaped particularly through public investments, infrastructure projects, and credit expansion policies. The orientation of PPPs toward large-scale infrastructure projects—such as airports, bridges, highways, and city hospitals—represented areas in which the state intervened directly as an investor (Kadirbeyoğlu & Sümer, 2019). These investments supported growth in the short term, created employment, and turned the construction sector into a leading force. However, the privileges granted by the state to certain business groups also gave rise to criticisms of “crony capitalism” (Esen & Gümüşçü, 2021). Thus, the allocation of economic resources increasingly came to be determined by political relationships rather than market mechanisms.

Consequently, since the 1950s, the position of the state in the Turkish economy has evolved via forms such as producer–planner, regulator–market facilitator, and strategic–directive. Today, state interventionism in Turkey, in parallel with global trends, takes shape under the paradigm of the “smart state,” which aims to combine market efficiency with national development objectives.

In conclusion, in the period after 2010 the state in Turkey increased its effectiveness in the economy both administratively and financially. Yet because this effectiveness rests more on political centralization than on institutional autonomy, it has focused on short-term growth and political legitimacy rather than economic efficiency. The prominence of the state within the economic domain has surpassed the market-centered orientation of the neoliberal era, consolidating the commanding influence of political authority in determining economic strategies. Within this

framework, the Turkish economy in the post-2010 period has been reshaped along the axes of “state capitalism” and “political interventionism” (Öniş & Şenses, 2021).

China

The post-2010 Chinese economy marks a period in which the state strengthened its guiding role within the economic system. Although the export-oriented, low-cost growth model of the 2000s transformed China into a global production hub, the limits of this strategy became apparent by the 2010s. As global competition shifted toward technological superiority, innovation capacity, and digital transformation, the state assumed a more active position with the goal of changing the quality of economic growth (Naughton, 2021). In this period, the state’s fundamental aims were to transform production capacity qualitatively, reduce external dependence, and move up the global value chains.

To achieve this, the state adopted a steering approach that did not entirely exclude market mechanisms but aligned them with national strategies. Sectors such as high technology, artificial intelligence, renewable energy, semiconductors, and biotechnology became priority areas. Public banks and national investment funds provided large-scale financing to these fields, and public policies encouraged private-sector R&D investments (Kennedy, 2015). Thus, without becoming a direct producer, the state emerged as an actor that determined the economic direction and strategically shaped financing flows and investments. In this process, the “Made in China 2025” program stood out as the emblem of the country’s technology-based growth vision.

The relationship between foreign policy and the economy also became increasingly pronounced in this period. The Belt and Road Initiative sought not only to expand infrastructure projects but also to redesign the financial system, supply chains, and energy corridors. Through this initiative, China increased its export of capital and technology while expanding its economic influence across Asia, Africa, and Europe (Summers, 2016). This constituted the foundation of a new development strategy in which the state combined economic power with diplomatic influence.

Moreover, the state’s micro-level influence became evident through regulations in financial markets, technology companies, and the digital economy. By placing the market influence of large digital platforms and fintech companies under supervision, the state aimed to safeguard economic stability and prevent systemic risks. While these interventions limited market volatility in the short term, they aligned private-sector activities with public objectives in the long term. As a result, the pursuit of equilibrium between economic activity and social stability emerged as the primary justification for the state’s interventionist approach.

In the post-2010 Chinese economy, the state’s role evolved to become not only regulatory but also directive, financing, and coordinative. Public policies encompass

the sustainability of economic growth and technological transformation together. In this framework, China developed an economic model that integrates market mechanisms into long-term development strategies rather than leaving them entirely free. This model redefined the state’s relationship with economic actors along the dimensions of planning, financing, and oversight, positioning China in the early twenty-first century as a “guided market economy” (Naughton, 2021).

Conclusions

The transformation of global capitalism in the twenty-first century has redefined the role of the state within the economy. This process manifests differently depending on countries’ positions in the world system. In core countries, the state has re-emerged as a strategic actor in the post-neoliberal era. Through industrial policies, green transition initiatives, and technology investments, the state has acquired a capacity that guides—without replacing—the market. This trajectory aligns with Mazzucato’s “entrepreneurial state” approach, whereby the state identifies critical sectors in the economy and undertakes strategic interventions. In semi-peripheral countries, by contrast, a paradigm has prevailed in which the state assumes a larger role in the economy and prioritizes various interest groups. While the market mechanism is preserved in these countries, the state determines strategic sectors and aligns capital accumulation with political objectives.

Tablo 2: Periodic Policies by Countries

Country	Pre-war Situation	1945–1980	Post-2010	Sectors
United States	State-controlled protectionist liberalism	Keynesian policies	Strategic interventionism	Finance, green transition
United Kingdom	Market-controlled liberalism	Keynesian policies	Strategic interventionism	Green transition
France	State-controlled protectionism	State-led investments	Strategic interventionism	Industry, energy
Germany	State-controlled protectionism	State-led investments	Strategic interventionism	Green transition
Russia	State control rooted in free market	Socialist statism	Growing state role within the free market	Energy
Turkey	State control rooted in free market	State-led investments	Growing state role within the free market	Construction
China	State control rooted in free market	Socialist statism	State capitalism	Infrastructure, energy, technology

When the policies pursued after 2010 are considered, countries appear to be seeking a dynamic balance between the free market and state capitalism. The state is no longer merely an actor that “corrects market failures,” but has moved into the position of a constitutive actor that sets economic direction and strategy. This indicates that the minimalist state concept of the neoliberal period has proved insufficient to meet current economic needs and has been superseded by a model of strategic interventionism. In core countries, this process has taken shape around innovation and sustainability objectives alongside investments that lead the private sector in critical industries; in semi-peripheral countries, it has been driven by concerns over development, employment, and political legitimacy. Thus, state capitalism is no longer a model specific to the periphery but has become a common component of global capitalism.

One reason for the worldwide move away from the minimalist state paradigm required by neoliberal policies is the observed decline in growth rates. Countries that enjoyed faster growth up to the 1980s encountered relatively lower growth rates after the state reduced its investments in critical sectors. In addition to various supply shocks—such as oil crises and natural disasters—the slowdown in private investment has raised the risk of more significant macroeconomic problems. For this reason, while core countries have implemented the entrepreneurial-state model tied to strategic interventionism, in semi-peripheral countries public investments that support the private sector also aim to mitigate the loss of growth momentum.

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Chapter 8

The Impact Of Social Media Influencers on the Purchasing Behavior Of Young Consumers In The Context Of Influencer Marketing

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INTRODUCTION

With the digital marketing approach, the one-way communication from businesses to consumers has been replaced by an interactive structure in which there is mutual communication and interaction with the consumer. In this structure called social media, one of the most important elements is undoubtedly influencers. People called influencers in social media regularly produce content through social networks and share this content with their followers. This mutual communication and interaction between social media influencers and followers has attracted the attention of businesses operating in the field of marketing, and they have chosen to communicate the messages they want to convey to consumers about their companies and brands more effectively by cooperating with social media influencers.

Social media influencers, who can reach millions of people instantly with the content and posts they produce, are considered as opinion leaders in the eyes of society, whose advice, opinions and suggestions are taken into consideration, who can have an impact on their followers, and who can play an important role in the purchasing behavior of consumers in cooperation with companies. The increasing interest in social media platforms and influencers who share content on these media tools has led to the emergence of influence marketing.

This study investigates the impact of influencers who produce and share content on social media platforms on the purchasing behavior of young consumers within the scope of influence marketing. For this purpose, field research was conducted to determine the views of young consumers on influencers, and a survey was used as a data collection method. The data obtained as a result of the survey application were analyzed using statistical package programs. The results of the analysis and the information obtained from the

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literature sources have been tried to be conveyed within the framework of academic writing rules.

1. CONCEPTUAL FRAMEWORK

1.1. Influencer (Influencer/Fenomenon) Concept and Influence Marketing

In today's digital age, developments in the field of communication have significantly changed the habits and behaviors of consumers (Armağan & Doğaner, 2018, p. 223). While consumers used to share their opinions and thoughts about a brand or a company with their immediate environment through word-of-mouth, today they share their opinions and thoughts with wider audiences through electronic word-of-mouth applications via social networks (Hennig- Thurau, Gwinner, Walsh, & Gremler, 2004, p. 38). With electronic word-of-mouth communication on social media platforms, it has become possible for the ideas and thoughts that people share with their followers to be adopted by a certain audience and to spread their thoughts to large masses. The fact that people who are affected by this situation take the influencers they follow as an example in their purchasing preferences has led people who share posts on social media to be seen as opinion leaders (Erdoğan & Özcan, 2020, p. 3815).

People who produce and share content on social media and are seen as opinion leaders are called "social media influencers" by the Ministry of Trade. It is considered that the concept of "influencer" will not be sufficient for people who can direct their followers to an active behavior through social media applications, and instead, the concept of "social media influencer" will be more appropriate as they have a guiding role in people's decision-making (Özel, 2021, p. 1). The concept of influential is used for individuals who use their power, fame, knowledge or experience to influence and direct others. In the changing communication environment as a result of globalization and technological developments, the concept of influential has changed as digital influential or social media influential (Ergül, 2019, p. 32). People who actively use social networks and create their own content are called influential people of social media, influencers or social media phenomena (Tanyeri Mazıcı & Hekimoğlu Toprak, 2020, p. 4268). An influencer is a person who has knowledge in a particular field or product and whose recommendations are taken into account. Influencers have the power to influence other people's opinions, behaviors and attitudes. In order to be influential, influencers have to take part in social media platforms and share the high-quality content they produce with their target audiences regularly and systematically (Tuten, 2023, p. 14). These people, also known as the celebrities of social media platforms, have succeeded in becoming

people who are followed by very large masses with their unique content. These developments in social media platforms have attracted the attention of people operating in the field of marketing and have been effective in their orientation towards this field. Recognizing the power of social media influencers, brands have preferred to collaborate with these influencers to promote their products and services. Thus, the concept of influence marketing, a new marketing concept, emerged (Tanyeri Mazıcı & Hekimoğlu Toprak, 2020, p. 4268).

Influence marketing is one of the most widely used marketing methods by companies. For the concept known as "influencer marketing" in English literature, concepts such as influence marketing, memorable marketing, phenomenon marketing, and influencer marketing are used in Turkish literature (Arklan & Tuzcu, 2019, p. 974; Armağan & Doğaner, 2018, p. 225; Bora Semiz & Zengin, 2019, p. 2328; Sertbaş, 2023, p. 11). Influence marketing is a type of marketing activity carried out with well-known people on social media platforms. Influence marketing is a business method in which products and services are tried to be promoted with the content produced by well-known people on social media platforms and brand awareness is aimed to be increased (Carter, 2016, p. 2).

Influence marketing is seen as one of the unique marketing strategies of social media platforms. In this marketing strategy, content producers, i.e. influencers, become the promoters and marketers of the product and service, leaving their characteristics as consumers (Şahin, 2019, p. 50). Influence marketing, which is considered as the word-of-mouth marketing method of social media platforms, is seen as a marketing practice that encourages influencers to carry word-of-mouth messages by utilizing their influence by influencing the decision-making mechanisms between brands and consumers. Influence marketing aims to promote the product, service or brand through influential people and to play an influential role in consumers' purchasing decisions. For this purpose, brands try to reach the target audience through online advertisements in cooperation with influencers to promote themselves or products (Ellis- Chadwick & Chaffey, 2012). As consumers are disturbed by advertisements on the internet and start to use various applications to block them, advertisers have turned to native advertising. With native advertising, consumers do not perceive the promotional activities of influencers as direct advertisements, but consider them as content with sincere expressions in which influential people share their own experiences (Aktaş & Şener, 2019, p. 401; Arslan, 2017, p. 19). Companies convey positive notifications to the audience on social media platforms through influential individuals. With this marketing method, it is tried to produce a positive image about the product, service and brand and an important promotion activity is fulfilled (Thorne, 2008, p. 277).

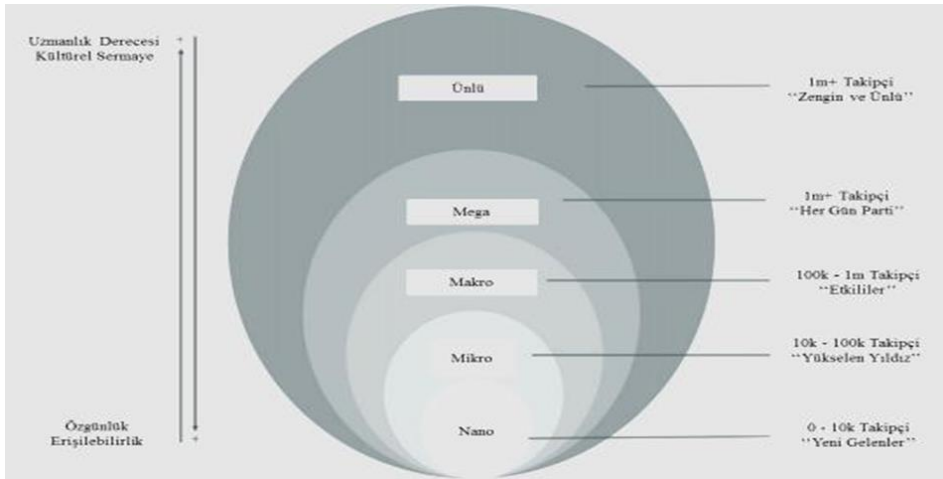
1.1.1. Types of Influencers

Phenomena are divided into two categories according to the platforms where their social media accounts are located and the number of followers (Aktaş & Şener, 2019, p. 406).

1.1.1.1. Types of Influencers by Number of Followers

According to the number of followers, some researchers (Brown & Hayes, 2008, p. 58; Waller, 2020, p. 99) divide the phenomena into four groups as nano, micro, macro and mega, while some researchers include famous phenomena in this category and evaluate them as five groups (Campbell & Farrell, 2020, p. 4; Özdemir & Çetinkaya Özdemir, 2023, p. 100).

Figure 1: Types of Influencers by Number of Followers



Source: (Campbell and Farrell, 2020, p. 4; Özdemir and Çetinkaya Özdemir, 2023, p. 101).

Nano Influencers: Influencers with less than 10,000 followers. Their interaction with their followers is high, but their earnings from advertising collaborations are low. The recommendations of the influencers in this category are friends and peer recommendations (Aydın Aslaner & Aydın, 2021, p. 33; Campbell & Farrell, 2020, p. 4; Özdemir & Çetinkaya Özdemir, 2023, p. 101).

Micro Influencers: Influencers with followers between 10,000 and 100,000 people. Trusted by their followers, this group stands out with their original content for certain sectors. Since their communication with their target audience is very strong, their influence on consumers is quite high (Aktaş & Şener, 2019, p. 406; Aydın Aslaner & Aydın, 2021, p. 33; Campbell & Farrell, 2020, p. 4; Özdemir & Çetinkaya Özdemir, 2023, p. 101; Sertbaş, 2023, p. 5).

Macro Influencers: Influencers with followers between 100,000 and 1 million people. The influencers in this group are not famous or rich people. They earn income through advertising collaborations and brand partnerships and are seen as successful people in the sector. Influencers in this category have become media stars thanks to social media platforms and can demand high sponsorship fees. Due to the large number of followers, they may not have detailed information about the characteristics and consumption trends of their followers (Aktaş & Şener, 2019, p. 406; Aydın Aslaner & Aydın, 2021, p. 33; Campbell & Farrell, 2020, p. 4; Özdemir & Çetinkaya Özdemir, 2023, p. 101; Sertbaş, 2023, p. 5).

Mega Influencers: Influencers with more than 1 million followers. They have a reputation based on a certain specialty (food, automotive, clothing, etc.). These are people who were not previously recognized by large masses but have reached a high level of followers with the content they produce. Thanks to their fame through social media platforms, they can demand high levels of remuneration through advertising and collaborations (Aktaş & Şener, 2019, p. 406; Aydın Aslaner & Aydın, 2021, p. 33; Campbell & Farrell, 2020, p. 4; Özdemir & Çetinkaya Özdemir, 2023, p. 101; Sertbaş, 2023, p. 4).

Famous People: This is the category of influencers who are followed by more than 1 million people on social media platforms and who are already known by the public. Celebrities in this group use social media mostly for their own careers. Since they are followed by large masses and seen as idols by their audiences, they earn significant profits through brand partnerships. People in this category are singers with a large fan base, famous athletes, movie stars, etc. (Campbell & Farrell, 2020, p. 4; Özdemir & Çetinkaya Özdemir, 2023, p. 101).

1.1.1.2. Types of Phenomena According to Social Media Platform

Influencers share with their followers through social media platforms such as Instagram, Twitter, TikTok, Facebook, LinkedIn and Blog (Haenlein et al., 2020, p. 5; Lou, Taylor, & Zhou, 2023, p. 60; Pourazad, Stocchi, & Narsey, 2023, p. 139; Vejačka, 2017, p. 27). The most used social media platforms for influence marketing are Instagram (79%), Facebook (46%), Youtube (36%), Twitter (24%), LinkedIn (12%) and other platforms (12%) (Demirci, 2021, p. 47).

Twitter Phenomenon: Twitter is a social media platform that allows its users to talk to each other and where a large number of followers have the opportunity to talk to each other. The articles shared on Twitter can be read by everyone and thus reach a very large audience. Twitter users can use this application for business or socializing. This allows Twitter users with different characteristics to coexist (Weber, 2009, p. 9). People who have reached a certain number of

followers through the Twitter application and have a high power to influence their followers are called Twitter influencers (Karaduman, 2021, p. 44). Most Twitter influencers are ordinary people.

This has made them famous as people who are recognized and followed on social media platforms. Brands and companies evaluate the way to convey their messages to the target audience they want to reach for the promotion of their products and services through Twitter influencers (Sabuncuoğlu & Gülay, 2014, p. 2).

Instablogger (Instagram Phenomenon): Instagram is a social media tool that started operating in the field of social media in 2013 and today has millions of users and provides access to millions of people. The Instagram application has been developed over time and features such as who follows the posts, whether they are liked and shared with others have been added and the number of followers has increased. This has enabled simultaneous information exchange and interaction between followers (Canlı, 2021, p. 67). With the pictures and short videos shared on Instagram, content producers take the position of narrators. There is a unity in the stories shared here and each post is considered as a separate story. The content shared on Instagram is seen as inspiring by followers (Ergül, 2019, p. 36). Instagram users who have an Instagram account, have reached a large follower base and regularly share content are called instabloggers. Instabloggers make recommendations about branded products and services with the content they produce, try them for their followers and make comments (Aktaş, 2018, p. 24).

Youtuber: Youtube is a social media platform established in 2005 that allows users to share video content and create channels. The channels created by users later reached large masses and started to operate in the size of TV channels. In parallel, the content produced has also evolved to adapt to this concept. People who produce content to share with large audiences through Youtube channels are called Youtubers or vloggers (Karaduman, 2021, p. 44). Yotubers have the power to create trends with the video content they share. They are people who have the ability to direct their followers to purchase by sharing their experiences about a certain brand, product or service in their videos (Aktaş, 2018, p. 24). This situation has attracted the attention of brands and companies, and they have started to use the Youtube social media platform as an advertising tool by collaborating with Yotubers with many followers (Coşkun, 2018, p. 56).

Twitch Partners: Twitch was established in 2010 with the separation of game-related broadcasts from Justin TV, which was established in 2007 as a social TV experiment. With the increasing interest in electronic sports, it has become one of the most popular live streaming platforms on the internet (Hamilton, Garretson, & Kerne, 2014, p. 1317). Most Twitch streams are related

to video games played by both amateur and professional gamers (Nematzadeh, Ciampaglia, Ahn, & Flammini, 2019, p. 10). Twitch.tv is generally known as a social media platform where broadcasters playing video games reach their audiences through live broadcasts. Followers and streamers of this application have the opportunity to chat with each other, and highly interactive people and viewers can browse many channels together at the same time and meet streamers from other games. There are channels for creativity, chat, music, art and more. On this platform, viewers can send donations or become paid subscribers to support the channels they follow (Canlı, 2021, p. 71). Users who have a certain audience on Twitch channels and have the power to influence this audience are called Twitch partners (Karaduman, 2021, p. 45).

1.2. Methods Used in Influence Marketing

Influence marketing is a strategy that requires partnering and collaborating with influential people in order for a brand to influence its target audience or the sector it is in. Influential people in influence marketing provide information about the brands they partner with to their followers through the content they produce (Sertbaş, 2023, p. 16). Brands aim to influence the purchasing behavior of consumers through influencers on social media platforms. For this purpose, they use influence marketing strategies in advertising, marketing and promotional activities (Balkan, 2019, p. 92). It is possible to examine the methods applied to realize the strategies targeted by influence marketing under the headings of brand ambassadorship, content advertisements, product evaluations, event invitations, discounts and partnership links, and product placement (Canlı, 2021, pp. 59-64; Ergül, 2019, pp. 47-52):

Brand Ambassadorship: Brand ambassadors are defined as people who develop a sense of trust between the brand's target audience and the consumer by recommending brands, products or services (Aktaş, 2018, p. 25; Balkan, 2019, p. 92; Canlı, 2021, p. 60; Coşkun, 2018, p. 59; Karaduman, 2021, p. 46; Karataş & Eti, 2022, p. 190). The selection of the brand ambassador is very important for influence marketing to achieve its goal. In the selection of the brand ambassador, attention should be paid to the expressions previously used about the relevant product or company, whether the visual identity is suitable for the brand, and whether the product or service to be promoted is compatible with the brand ambassador's audience (Balkan, 2019, p. 92; Canlı, 2021, p. 60; Coşkun, 2018, p. 59; Ergül, 2019, p. 50). The task of the brand ambassador is to represent the identity of the brand in the best way for a fee. Influencers who act as brand ambassadors enter into long-term cooperation with the companies they represent. The cooperation of Youtuber İdil Yazar, who produces content on food topics on

the Youtube social media platform, with Sana, a margarine brand, is seen as a suitable example in terms of brand ambassadorship (Aktaş, 2018, p. 26; Canlı, 2021, p. 60).

Content Ads: Today, consumers pay more attention to the opinions and suggestions of people who have used the product before and share their experiences rather than the information shared by brands about their products. In order to attract the attention of consumers about their brands or products and gain their trust, companies cooperate with influencers and enable them to use their products and share their opinions about these products with their followers. It is possible to show the posts of youtubers on Youtube social media platforms about their experiences with products as an example for content advertisements (Canlı, 2021, p. 61; Ergül, 2019, p. 49).

Product Reviews: On social media platforms such as Youtube, Instagram and Facebook, influencers share the brands they have purchased or the products sent from companies with their target audience and make comments and evaluations about the product. Usually, unboxing videos of products sent by companies, sharing first impressions or comparisons between different brand products that perform the same function can be effective in consumers' purchasing decisions. Influencers who make product evaluations share posts with their own profile identities. The aim here is to protect the bond of trust between them and their followers (Balkan, 2019, p. 94; Canlı, 2021, p. 62; Coşkun, 2018, p. 60; Karaduman, 2021, p. 47).

Event Invitations: Within the scope of influence marketing, brands also collaborate with influencers through event activities. Collaborations within the scope of event activities are generally carried out in areas such as fashion, food, cosmetics, art, travel, music, entertainment and sports products (Balkan, 2019, p. 95). The activities carried out in order to convey the information belonging to the brand to large masses are seen as brand events. The purpose of the event invitations made by brands is to increase the awareness of the brand among influencers and their followers and to improve the level of knowledge of the people attending the event about the brand (Brown & Hayes, 2008, p. 142; Canlı, 2021, p. 62).

Discounts and Partnership Links: Companies offer instant discounts for certain products in certain periods to the influencers or youtube channel followers with whom they have an agreement regarding their products and services (Canlı, 2021, p. 63). They also conduct online advertising activities by establishing sales and marketing partnerships with these people. In this method, influencers receive payment from advertising companies when sales are realized. The rate at which

followers click on and like the content produced for the promotion of the relevant brand is effective in the amount of the fee received (Edelman & Brandi, 2015, p. 1).

Product Placement: It is defined as "exposing consumers to branded content by integrating the brand into places that are not considered as advertising space" (Wei, Fischer and Main, 2008, p. 35). Efforts to increase the awareness of viewers about the brand as a result of the conscious and planned addition of elements that will evoke the brand to videos and content shared through social media platforms are considered as product placement (Eser, 2019, p. 25). Product placement practices in social media play an important role in consumers having more information about the product and service. On social media platforms, there is an interactive interaction between the content producer and the follower. The interaction level of the shared content is seen as one of the effectiveness criteria of product placement practices. Followers' likes and comments on the content with product placement are considered as indicators of interaction (Öztürk & Şener, 2018, p. 393).

1.3. Types of Influence Marketing

It is possible to examine the types of influence marketing practiced between influencers on social media platforms and companies that want to engage in advertising and promotional activities under the subheadings of sponsored content production, outcome-based cooperation model, free product delivery and sweepstakes on social media channels (Özel, 2021, pp. 19-24; Wu, 2016, pp. 64-68):

Producing Sponsored Content: While some of the content produced on social media platforms is spontaneously produced by influencers and is not associated with any brand, some content is "sponsored content". The purpose of sponsored content is to promote the products and services of the sponsoring company (Wu, 2016, p. 64).

In sponsored content, influencers inform their followers about the products and services of the sponsoring company and try to persuade them to use the relevant products. Sponsoring companies, on the other hand, aim to increase the interest of the followers of the phenomenon they support in their products and brands, evaluate the feedback from them, and learn the demands and opinions of consumers (Bora Semiz & Zengin, 2019, p. 2327).

Collaboration Model with Participation in Results: In this collaboration model, the advertiser defines a special link or code for the influencer on its own shopping site. The influencer in cooperation with the company directs its followers to the relevant link and encourages them to make a purchase. For purchases made through the code or link defined by the company to the influencer, the influencer is paid a commission per product. In some cases, payment is made according to the number of views of the content produced by the influencer for promotional purposes (Wu, 2016, p. 64). The outcome-based collaboration model is mostly used by online

shopping sites. In this model, it is sufficient to make an agreement with online shopping sites without the need to establish a sponsorship relationship with the products in the promotional link (Özel, 2021, p. 21).

Free Product Delivery: In this practice, products are sent to influencers free of charge by advertisers, and such products are called "PR (public relations) packages" in the field of advertising. The products sent by the companies are shared on the social media accounts of the content producers and information about the products is provided. In the free product sending method, there is no agreement between the company and the social media influencers. Social media influencers are not obliged to share their opinions about the products sent to them, but if they do, they are considered as a secret brand representative of the relevant company. There is no contractual agreement between the company and the social media influencer, and since the influencer gains free products or services, it is within the scope of influence marketing (Özel, 2021, pp. 22-23).

Sweepstakes on Social Media Platforms: On social media platforms, especially by influencers with a high number of followers, sweepstakes are organized for a certain product and service group. In order to participate in these sweepstakes, conditions such as following the relevant social media account, liking the post containing the sweepstakes and sharing it among different people are required. In this influence marketing method, advertisers ensure that their products and services meet with consumers, while social media phenomena find the opportunity to increase the number of followers (Özel, 2021, p. 23).

1.4. Effects of Influence Marketing on Consumer Purchasing Behavior

People who are in the target markets of companies and who accept or reject the marketing elements presented to them by them constitute the consumer group. These people, whose personality traits, socio-cultural structures and psychological aspects are different from each other, are among the potential customers of companies. This group of consumers also plays a main role in determining the activity plans of firms (İslamoğlu & Altunışık, 2023, p. 5). The concept of consumer behavior includes the experiences of consumers before and during the act of consumption, feelings and thoughts towards purchasing activities. It allows the interpretation of many components of the product or service, from price to packaging, from advertising to promotion, and is considered as an important issue that needs to be aware of dynamic processes (Peter & Olson, 2010, p. 6).

Consumers purchase products or services to meet their needs that arise as a result of their wants and needs. Before performing the purchasing behavior, they need to obtain information about the brands in the product or service category they will buy. They usually get this information from their families, reference groups or influencers

who post on social media platforms they follow and consider them as opinion leaders. Influencers on social media platforms followed by people from all age groups represent a different marketing area where social media followers can get information about brands (Canöz, Gülmez, & Eroğlu, 2020, p. 79).

In today's communication age, where it is very easy to access information about many products or brands through searches on social media platforms, consumers have the opportunity to interact with other consumers and share their ideas and experiences about products or brands. In this respect, it is possible to comment that consumer behaviors are influenced by each other. Satisfaction or complaints shared about a product or brand help consumers looking for information about that product or brand years later, and these posts can be easily accessed from all over the world. Negative posts on social media platforms negatively affect brands and damage brand image. When a negative post goes viral on social media, it reaches millions of people in a very short time and negatively affects the company. Likewise, as a result of the virality of critically important positive posts, the image of the brand is expressed positively in the eyes of millions of people (Demirel, 2013, p. 74).

When consumers consider purchasing a product or service, they exhibit purchasing behavior by looking at the thoughts and conversations of other consumers on social media platforms (Evans, 2012, p. 40). Sharing thoughts and experiences about the product and service, which is generally seen in consumer behavior after the purchase, is a source of information for other consumers' research on the product and service (İşlek, 2012, p. 101). Consumers who have information about how they experience the product and service on social media platforms and how the users of the product or service provide feedback make their purchasing decisions accordingly (Alagöz & İşlek, 2011, p. 935). The impact of social media platforms, which consumers use extensively, on consumer behavior is inevitable. Social media platforms play an effective role in the decision-making processes of consumers and this is a new factor in the process that firms cannot intervene in (Constantinides & Zinck Stagno, 2011, p. 10). Although companies cannot be involved in the process, they try to play an effective role in the purchasing behavior of consumers by cooperating with phenomena that produce content and constantly interact with their followers (Karataş & Eti, 2022, p. 188).

1.5. Literature Review and Hypotheses of the Study

In the literature, it is seen that research has been conducted on influence marketing and its impact on consumer behavior. Jin et al. (2019, p. 567) investigated the effects of the content produced by Instagram influencers and the content produced by traditional celebrities on consumers, and found that the content produced by influencers is more trustworthy, admirable and creates a

positive impact. It was also concluded that influence marketing practices are an effective brand strategy.

Djafarova and Rushworth (2017, p. 1) concluded that Instagram influencers have an impact on the purchasing behavior of young female consumers. It was found that trust in influencers who share content on platforms such as Instagram and Youtube is higher than trust in traditional celebrities. It was stated that participants can communicate more easily with social media influencers and follow influencers who share positive content. In a study conducted by Avcılar and Açar (2017, p. 1), the effectiveness of advertisements made by celebrities and influencers on Instagram was compared, and it was stated that celebrities are effective in creating awareness in the consumer decision process, while influencers are effective in the purchasing process and are seen as opinion leaders.

Tanyeri Mazıcı and Hekimoğlu Toprak (2020, pp. 4265) examined the relationship between influence marketing and purchasing behavior and found that the image of brands was positively affected by marketing activities conducted through influencers on social media platforms, but participants were cautious about purchasing and preferred trust-based intimate relationships on social networks.

In the study conducted by Aytaş (2019, pp. 132-133) investigating the effects of social media influencers on brand diffusion and purchase decision process, it was concluded that the collaborations between influencers and brands positively affect the attitude towards the brand. It was determined that the participants were undecided about the effect of influencers on the purchase decision processes of the followers. The diversity of products and services for the promotions made by influencers was investigated, and it was concluded that women were influenced by influencers in purchasing decisions in personal care, fashion, food and beverage products, while men were influenced by influencers in technological products and automotive. In the study conducted by Arklan and Tuzcu (2019, p. 993) on influence marketing, it was concluded that people who use social media are influenced by influencers with a high number of followers. In addition, it was determined that women are more likely to be influenced by influencers in purchasing behavior than men.

In the study conducted by Albayrak (2020, pp. 119-135), the relationship and effect of social media influencers' posts on brand perception and trust in influencers on purchasing behavior were revealed. In the relevant study, it was stated that the level of participation in the statements regarding the content sharing of influencers regarding brand perception and purchasing behavior ($X(\text{mean}) = 3.53$) was above the average value, while the level of trust in influencers ($X(\text{mean}) = 2.97$) was at medium levels. In addition, the study also

revealed that there is a positive relationship between trust in phenomena and purchase behavior with $r = 0.770$, between brand perception and purchase behavior with $r = 0.784$, and that trust in phenomena positively affects purchase behavior with $R^2 = 0.593$.

The following hypotheses were developed by taking into account the studies on influence marketing and the effects of influence marketing on purchase behavior in the literature.

Hypothesis 1: There is a relationship between the brand perception activities of social media influencers and the purchasing behavior of young consumers .

Hypothesis 2: There is a relationship between trust in social media influencers and young consumers' purchase behavior.

Hypothesis 3: Social media influencers' activities towards brand perception have a positive effect on young consumers' purchase behavior .

Hypothesis 4: Trust in social media influencers has a positive effect on young consumers' purchase behavior.

2. METHODOOGY

2.1. Purpose and Method of the Study

This study investigates the impact of the content shared by influencers on social media platforms for product and brand promotions on the purchasing behavior of young consumers within the scope of influencer marketing. In accordance with the purpose of the study, a relational survey model was used. According to Karasar (2023, p. 181), the relational survey model, which is one of the quantitative research models, is defined as "a model that aims to describe the existence or degree of change between two or more variables together".

In order to achieve the aim of the research, field research was conducted and survey technique was used as a data collection method in the field research. The data obtained as a result of the questionnaire application were tested with descriptive statistical analysis, correlation analysis and simple linear regression analysis

2.2. Sample and Data Collection Tool

The research covers young consumers between the ages of 15-24 living in Muğla province. According to the news bulletin published by the Turkish Statistical Institute (TÜİK, 2024) on May 17, 2024, there are 130,396 young people in the 15-24 age

group in Muğla province. In cases where the research population is more than 10,000 people, the sample number that can represent the population should be at least 384 people (Sekaran, 1992, p. 253). Between June-July 2024, a face-to-face survey was conducted in Muğla for young people between the ages of 15-24, and survey data suitable for analysis could be collected from 384 people who agreed to participate in the research.

The questionnaire form used as a data collection tool consists of two parts. The first part includes demographic questions such as gender, marital status and education level. In the second part of the questionnaire form, the Scale of the Effect of Youtube and Instagram Influencers on Trust, Brand Perception and Purchase Behavior (FGMSÖ) prepared by Albayrak (2020, p. 112) was used. The scale includes 22 statements in accordance with the purpose of the research. The first 9 statements measure the perception of followers towards the brand content shared by social media influencers. The next 6 items include statements about trust in social media influencers. In the last section, there are 7 statements to determine the effect of the content shared by social media influencers on purchasing behavior. The validity and reliability analysis of the scale and the dimensions used in the scale was conducted by Albayrak (2020, p. 112) and it was statistically proven that the scale was prepared in accordance with its purpose. In this study, the scale was analyzed with the same items and dimensions. The statements in the questionnaire form were answered according to a 5-point Likert scale. The scoring of the statements in the form is represented as 1 - Strongly disagree, 5 - Strongly agree.

2.3. Evaluation of Research Findings

IBM SPSS 22.0 statistical package program was used to analyze the data obtained as a result of the questionnaire application. Hypotheses were tested according to 95% confidence interval.

2.3.1. Demographic Data

A total of 384 young consumers in the 15-24 age group who follow influencers on social media platforms participated in the study. Of the participants, 200 (52. 1%) were female and 184 (47. 9%) were male. Of the respondents, 16 (4. 2%) graduated from high school, 312 (81. 3%) from associate's degree and 56 (14. 6%) from bachelor's degree. Of the young consumers participating in the study, 16 (4. 2%) were married and 368 (95. 8%) were single.

2.3.2. Reliability Analysis and Descriptive Statistics

The reliability value (Cronbach's Alpha) for the Scale of the Effect of Youtube and Instagram Influencers on Trust, Brand Perception and Purchase Behavior

(FGMSÖ) used in the questionnaire form used in the research is 0.960. The reliability value (Cronbach's Alpha) for the statements measuring the perception of followers towards the brand content shared by social media influencers is 0.926. The reliability value (Cronbach's Alpha) of the statements regarding trust in social media influencers is 0.884. The reliability value of the statements to determine the effect of the content shared by social media influencers on purchasing behavior (Cronbach's Alpha) is 0.912. According to Kalaycı (2008, p. 408), if the reliability level (Cronbach's Alpha) of the scale used in a research is in the range of $0.80 \leq \alpha \leq 1.00$, that scale is considered highly reliable. The reliability of the statements in the questionnaire form used in the research is quite high.

Tablo 1. The Effect of Phenomena on Brand Perception

The Impact of Phenomena on Brand Perception	Person	X Mean	S.S.
I am interested in the collaboration of influencers with brands.	384	2.67	1.30
I may change a brand I use as a result of the promotional activity of an influencer I follow.	384	2.60	1.20
Brands promoted by influencers on Instagram and Youtube are more memorable for me.	384	3.06	1.32
I associate certain brands with certain influencers as a result of the promotional activities of influencers.	384	3.08	1.28
I find it right for influencers to cooperate with brands within the scope of promotional activities.	384	2.91	1.27
I find brands' collaboration with influencers useful.	384	2.96	1.15
I develop a positive attitude towards the brand promoted by the influencers.	384	2.85	1.23
I use brands promoted by influencers.	384	2.78	1.13
I have a positive impression of the brand promoted by the influencers.	384	2.88	1.15
Influence of Phenomena on Brand Perception (Overall Average)	384	2.87	0.97

According to the results of the descriptive statistics analysis in Table 1, it is seen that the general average of the level of participation in the statements measuring the perception of followers towards the brand content shared by social media influencers $X(\text{mean})=2.87$. As a result of the analysis, it is possible to state that the perception levels of young consumers regarding the promotional activities of social media influencers towards brand perception are at a medium level.

Tablo 2. Trust in Influencers

Trust in Influencers	Person	X Mean	S.S.
I trust the promotional activities of influencers.	384	2.60	1.20
I would recommend a product I bought as a result of the promotional activities of the influencers I follow to my friends.	384	3.05	1.20
I think that the influencers in promotional activities are experts in their fields (fashion, health, sports, etc.)	384	2.31	1.33
I think that the phenomena in promotional activities are impartial (explaining all positive and negative features of the product, etc.).	384	2.35	1.29
I think that influencers use the products they promote in daily life.	384	2.39	1.21
Negative developments in the personal life of the influencer I follow negatively affect my perspective on the promotional activity of the influencer.	384	2.51	1.30
Trust in Phenomena (Overall Average)	384	2.54	1.00

When the results of the descriptive statistics analysis in Table 2 are analyzed, the general average of the level of participation of young consumers in the statements regarding their trust in social media influencers is $X_{\text{mean}}=2.54$. According to the 5-point Likert scale, it is concluded that the trust in influencers is slightly below the medium level.

Tablo 3. Influence of Influencers on Young Consumers' Purchase Behavior

The Impact of Phenomena on Young Consumers' Purchase Behavior	Person	X Mean	S.S.
Promotional activities of influencers have an impact on my purchase behavior.	384	2.79	1.21
It is important for me to get information about the promoted brand/product from the promotional phenomenon before I engage in purchasing behavior.	384	2.76	1.21
I examine the promotional activities of influencers before making a purchase behavior.	384	3.09	1.35
If the influencer I follow has positive/negative opinions about the product I am going to buy, this affects my purchasing behavior.	384	3.01	1.26
Phenomena's positive posts about the brand/product affect my brand/product preference.	384	2.97	1.28
If I were to buy a product/service today, I would prefer the brand promoted by the influencers I follow.	384	2.69	1.24
Even if I do not use a brand, if the influencer I follow recommends that brand, I will buy that brand.	384	2.51	1.36
Trust in Phenomena (Overall Average)	384	2.83	1.03

According to the results of the descriptive statistics analysis in Table 3, it is seen that the general average of the participation in the statements regarding the impact of influencers who share content on social media platforms within the scope of influence marketing on the purchasing behavior of young consumers is $X_{mean}=2.83$. According to the 5-point Likert scale, the effect of phenomena on the purchasing behavior of young consumers was found to be at a level close to medium.

2.3.3. Testing the Research Hypotheses

Before testing the research hypotheses, it was investigated whether the data showed normal distribution. For this purpose, the data were subjected to the Kolmogorov-Smirnov test and it was concluded that kurtosis and skewness values were between -1.5 and +1.5. According to Tabachnick et al. (2013), when kurtosis and skewness values are between -1.5 and +1.5, analyses can be performed according to normal distribution.

Hypothesis 1: There is a relationship between the activities of social media influencers towards brand perception and the purchasing behavior of young consumers.

The results of Pearson correlation analysis for Hypothesis 1 are presented in Table 4.

Table 4. The Relationship between Influencers' Activities Towards Brand Perception and Young Consumers' Purchase Behavior

Correlation Analysis		Purchasing Behavior of Young Consumers
Brand Perception of Influencers	Pearson Correlation	.822**
	Sig. (2-tailed)	.000
	N	384

* $p<0.05$ ** $p<0.01$

According to the Pearson correlation analysis values in Table 4, statistically significant results were obtained. It is concluded that there is a significant ($p<0.01$) and positive relationship between the content shared by influencers on social media platforms regarding brand perception and the purchasing behavior of young consumers at the rate of $r = 0.822$. According to the results of the correlation analysis, Hypothesis 1 is supported.

Hypothesis 2: There is a relationship between trust in social media influencers and purchasing behavior of young consumers.

The results of Pearson correlation analysis for Hypothesis 2 are presented in Table 5.

Table 5. The Relationship between Trust in Phenomena and Young Consumers' Purchase Behavior

Correlation Analysis		Purchasing Behavior of Young Consumers
Trust in Influencers	Pearson Correlation	.777**
	Sig. (2-tailed)	.000
	N	384

* $p < 0.05$ ** $p < 0.01$

The Pearson correlation analysis results in Table 5 are statistically significant. It has been determined that there is a significant ($p < 0.01$) and positive relationship between trust in influencers on social media platforms and the purchasing behavior of young consumers with $r = 0.777$. According to the correlation analysis, Hypothesis 2 is supported.

Hypothesis 3: The activities of social media influencers towards brand perception have a positive effect on the purchasing behavior of young consumers.

The results of the simple linear regression analysis for Hypothesis 3 are presented in Table 6.

Table 6. Simple Linear Regression Analysis for Hypothesis 3

Dependent Variable: Purchasing Behavior of Young Consumers					
Independent Variable	R ²	F	β	t	p
Brand Perception of Influencers	.676	795.878**	.873	28.211	.000**

* $p < 0.05$ ** $p < 0.01$

Simple linear regression analysis was performed to determine the effect of the content shared by influencers on brand perception on social media platforms on the purchasing behavior of young consumers and the statistically obtained results were statistically significant ($p < 0.01$). The ratio of consumers' purchasing

behavior explained by the influencers' posts on brand perception is $R^2 = 0.676$. It has been determined that a 1-unit increase in the activities of social media influencers towards brand perception causes an increase of 0.676 on the purchasing behavior of young consumers. According to the results of simple linear regression analysis, Hypothesis 3 is supported.

Hypothesis 4: Trust in social media influencers has a positive effect on the purchasing behavior of young consumers.

The results of the simple linear regression analysis for Hypothesis 4 are shown in Table 7.

Table 7. Simple Linear Regression Analysis for Hypothesis 4

Dependent Variable: <i>Purchasing Behavior of Young Consumers</i>					
Independent Variable	R^2	F	β	t	p
<i>Trust in Influencers</i>	.603	580.492**	.799	24.093	.000**

* $p < 0.05$ ** $p < 0.01$

Simple linear regression analysis was performed to determine the effect of trust in social media influencers on the purchasing behavior of young consumers and statistically significant ($p < 0.01$) results were obtained. The ratio of consumers' purchase behavior explained by trust in social media influencers is $R^2 = 0.603$. It has been determined that a 1-unit increase in trust in social media influencers causes an increase of 0.603 on the purchasing behavior of young consumers. According to the results of simple linear regression analysis, Hypothesis 4 is supported.

3. EVALUATION AND CONCLUSION

In this study, within the scope of influence marketing, the effect of the content shares of influencers on social media platforms on the consumer behavior of young people is investigated. For this purpose, field research was conducted, the data obtained were subjected to statistical analysis and significant results were obtained.

It is possible to state that the perception level of young consumers participating in the research regarding the promotional activities of social media influencers towards brand perception ($X_{mean} = 2.87$) is at a medium level. Young consumers remain undecided at the level of participation in the statements regarding the promotional activities of social media influencers towards brand perception. As a result of these

results, it is possible to state that the promotional activities carried out by social media influencers in the formation of brand image and the development of brand loyalty in young consumers are not at the desired level. In a similar study conducted by Albayrak (2020, p. 119), it was concluded that the level of participation ($X_{\text{mean}}=3.53$) in the statements about brand perception of influencers was slightly above the medium level. In the studies conducted by Tanyeri Mazıcı and Hekimoğlu Toprak (2020, p. 4265) and Aytaş (2019, pp. 132-133), it was concluded that the collaborations between influencers and brands have a positive contribution to the attitude towards the brand.

When the results of the analysis of trust in social media influencers who share brand and product-related posts on social media platforms are analyzed, it is seen that the level of trust ($X_{\text{mean}}=2.54$) is slightly below the medium level. It can be said that young consumers do not fully develop trust in social media influencers. In order to build this trust in consumers, influencers who share content on social media platforms should be honest, reliable and have a stable stance. At the same time, sharing sincere and real emotions in their interactions with young consumers who are their followers will contribute to building this trust. In a similar study conducted by Albayrak (2020, p. 119), trust in influencers ($X_{\text{mean}}=2.97$) was found to be at a medium level.

The result of the analysis on the reflection of the content shared within the framework of promotions and collaborations carried out by influencers on the purchasing behavior of young people (X or $t=2.83$) is close to the middle level. At this point, young consumers are in an undecided position and the rate of purchasing behavior as a result of the content shared by influencers is at average levels. In a similar study conducted by Albayrak (2020, p. 119), the reflection of the content shared by influencers on purchasing behavior ($X_{\text{mean}}=3.41$) was slightly above the average level. In a study conducted by Avcılar and Açar (2017, p. 1), it was stated that influencers are influential in the purchasing process of consumers and are seen as opinion leaders. Djafarova and Rushworth (2017, p. 1) reported that influencers are effective in the purchasing behavior of young female consumers.

It was concluded that there is a positive and high level relationship ($r=0.822$) between the activities carried out by influencers for brand perception and the purchasing behavior of young consumers. It is thought that as the quality of the activities carried out by social media influencers to create and promote brand image increases, the level of knowledge of young consumers about the brand will increase and this will have a positive effect on purchasing behavior over time. In the research conducted by Albayrak (2020, p. 133), it was stated that there is a positive and high level ($r=0.784$) relationship between brand perception and purchase behavior.

It is important that influencers who share content on social media platforms are trustworthy people. When the relationship between trust in social media influencers and purchase behavior of young consumers is examined, it is found that there is a high and positive relationship ($r = 0.777$). As the trust in social media influencers increases, it is expected that over time, there will be an increase in the purchasing behavior of young consumers towards the company and brand with which the influencer cooperates. In the study conducted by Albayrak (2020, p. 133), it was stated that there was a positive and high level ($r = 0.770$) relationship between trust in influencers and purchasing behavior.

It was investigated to what extent the young consumers participating in the research were influenced by the activities of social media influencers towards brand perception in terms of purchasing, and it was concluded that there was a positive and moderate ($R^2 = 0.676$) effect. It is possible to say that social media influencers' posts about the image of the company and brand that they collaborate with are effective on young consumers.

According to the results of the analysis investigating the effect of trust in social media influencers on the purchasing behavior of young consumers, a positive and moderate ($R^2 = 0.603$) effect was found. The contribution of young consumers' trust in social media influencers to their purchasing behavior will be positive. In the research conducted by Albayrak (2020, p. 135), it is stated that trust in influencers has a positive and moderate ($R^2 = 0.593$) effect on purchasing behavior.

As a result, in a world of the digital age, it would be the right choice to utilize social media influencers in marketing and promotional activities at a time when the interest in social media platforms is intense. What is important here is that the social media influencers to be collaborated with are honest and reliable, and that they maintain their posts consistently. Social media influencers who are trusted by their followers, who are able to establish emotional bonds with their followers and who are in constant interaction with them are inevitably influential on young consumers. It is seen that followers are still cautious about the transformation of this situation into purchasing behavior. As the trust-based bond between social media influencers and young consumers who are their followers increases, the sales performance of the companies they cooperate with will also increase.

In this study, the activities of social media influencers in the field of influence marketing and the impact of this situation on the purchasing behavior of young consumers were investigated. As a suggestion for future research; it is thought that research on a wider consumer group will contribute to both practitioners in the sector and scientists conducting academic studies in this field.

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