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Methodology, Research and Application



Editor

Prof. Dr. Ahmet Niyazi Özker

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PREFACE

Recent developments in social sciences have made it necessary to discuss scientific studies on a multidisciplinary scientific platform. This requirement also means a structure that is brought together on the same platform and questions mutual result relations related to scientific studies. Multi-faceted responses to the comparison of the findings of all kinds of scientific studies, especially in their own field, in a multidisciplinary field, also constitute a meaningful global activity today. An important source of this global activity is undoubtedly its contribution to developing a ground where all kinds of work at the international level are meaningful.

Obviously, this book, named *Reviews in Administrative and Economic Science: Methodology, Research, and Application*, has significantly contributed to the scientific literature with its studies focused on social sciences. In this respect, meeting all kinds of studies and findings on an important platform and providing this platform in this book creates a meaningful international position. Discussing all kinds of scientific findings on a platform open to all kinds of thoughts in the related studies in the book also means a meaningful global ground with a qualified infrastructure. In addition to all these, including all kinds of thoughts and opinions open to discussion, especially in a book published at the international level, is undoubtedly indisputably important in terms of its contributions.

In this context, I would like to express my gratitude and respect to all the authors who contributed to the book with their scientific studies and the referee committee and publishing house staff who made important contributions to the book's preparation. I would like to express my respect and hope for future studies.

Prof. Dr. Ahmet Niyazi Özker
Bandırma Onyedli Eylül University

CONTENTS

	PREFACE	I
CHAPTER I	IMPACT CRITERIA OF PUBLIC INCENTIVES AND EXPECTATIONS IN THE PROCESS RELATED TO GLOBAL ECONOMY <i>Ahmet Niyazi ÖZKER</i>	1
CHAPTER II	IN- SERVICE TRAINING <i>Bora GÜNDÜZYELİ</i>	19
CHAPTER III	PSYCHOLOGICAL VIOLENCE AT THE WORKPLACE (MOBBING): IT'S EFFECTS AND CONSEQUENCES <i>Çiğdem İNCE AYAYDIN</i>	31
CHAPTER IV	THE EFFECT OF DIRECT FOREIGN CAPITAL AND PORTFOLIO INVESTMENTS ON ECONOMIC PERFORMANCE: EVIDENCE FROM TURKEY <i>Esin Cumhuri YALÇIN</i>	41
CHAPTER V	AN ASSESSMENT ON THE BENEFITS AND COSTS OF TAX AMNESTIES <i>Fatma TURNA</i>	59
CHAPTER VI	PRODUCTION COSTS AND PROFITABILITY OF TEA IN TURKEY: THE CASE OF ÇAYKUR ENTERPRISES <i>Kurtuluş MERDAN</i>	79
CHAPTER VII	EFFECTS OF ARTIFICIAL INTELLIGENCE ON E-COMMERCE <i>Mehmet Fatih BURAK</i>	91
CHAPTER VIII	THE DETERMINANTS OF INTERNAL MIGRATION IN TURKEY: GRAVITY MODEL RESULTS ON PROVINCES <i>Mürşit RECEOĞLU & Mustafa Kemal DEĞER</i>	101

CHAPTER IX	COMPARISON OF OBJECTIVE CRITERION WEIGHTING METHODS: A REAL-LIFE APPLICATION	125
	<i>Nazli ERSOY</i>	
CHAPTER X	MODERATOR ROLE OF TENURE IN THE RELATIONSHIP BETWEEN RESPONSIBLE LEADERSHIP AND PERSON-ORGANIZATION FIT	139
	<i>Osman Seray ÖZKAN & Burcu ÜZÜM</i>	
CHAPTER XI	ETHICS IN THE ORGANIZATIONS	151
	<i>Tuğba ERHAN & Hasan Hüseyin UZUNBACAK Kübra ÖZGENÇ</i>	
CHAPTER XII	RELATIONSHIP BETWEEN FINANCIAL SERVICES CONFIDENCE INDEX AND CDS PREMIUMS: TIME SERIES ANALYSIS WITH STRUCTURAL BREAKS	175
	<i>Tuğba NUR</i>	
CHAPTER XIII	THE RELATION BETWEEN FOREIGN DIRECT INVESTMENTS AND CRISIS: PANEL UNIT-ROOT ANALYSIS ON SELECTED COUNTRIES	195
	<i>Tunahan HACIIMAMOĞLU & Harun SARAÇ</i>	
CHAPTER XIV	EVALUATION OF THE EFFECT OF OCCUPATIONAL HEALTH AND SAFETY PRACTICES ON PERFORMANCE AND ORGANIZATIONAL COMMITMENT OF EMPLOYEES IN THE CONTEXT OF LITERATURE	215
	<i>Turabi KARADAĞ</i>	
CHAPTER XV	RESILIENCE IN HOSPITALITY INDUSTRY	235
	<i>Tülay POLAT ÜZÜMCÜ & İbrahim ÇETİN</i>	
CHAPTER XVI	BUILDING A KNOWLEDGE CULTURE IN ORGANIZATIONS	265
	<i>Yasin ÇAKIREL</i>	
CHAPTER XVII	VIRTUAL ORGANIZATIONS AND MANAGEMENT	285
	<i>Zümrüt Hatun DEMİREL</i>	
CHAPTER XVIII	ANALYSIS OF FRENCH COLONIAL LOGIC AND TOOLS USED IN COLONIAL COUNTRIES	307
	<i>İbrahim Attila ACAR & Osman Tekir</i>	
CHAPTER XIX	BIBLIOMETRIC ANALYSIS OF THE RELATIONSHIP BETWEEN COVID-19, TURKEY AND AUTHORITARIANISM	333
	<i>Recep GULMEZ</i>	

CHAPTER I

IMPACT CRITERIA OF PUBLIC INCENTIVES AND EXPECTATIONS IN THE PROCESS RELATED TO GLOBAL ECONOMY

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1. Introduction

Public incentive policies are important practices in ensuring macroeconomic balances along with sectoral development and in understanding the scale effect of the real added value created on the basis of sectors on national income. On the other hand, public incentive policies include financial practices that have an important place in regulating the factoral income distribution of sectors, apart from the target economic growth trends. The impact criteria of public incentives in the process create a meaningful structure, especially with the financial balances, which are the priority criteria of the countries' monetary policies, and this fact must overlap with the targets in the countries' financial policies (IMF, 2015: 5). It appears that this structure reveals a process where sectoral developments also take place in regional results and programs and integrate with other selective credit policies.

This structural approach also shows the complex structure of public incentives in the target economic growth process based on countries. Regardless of the stage, a target macro balance in which public incentives take place in the process is directly aimed at creating added value on the sectoral developments of incentives aimed at economic growth (Hicks and LaFaive, 2011: 196). This situation also means a structure in which the harmony of public incentives with public policies comes to the fore and the public ceiling of the target social-

economic policies is considered first. Public incentive policies generally emerge with different areas of expertise and are supported by various tools for other activities.

In the emergence of these programs, the legal infrastructure regarding research and development is also related to the in-house or post-company support or support provided by public institutions and organizations with different fields of expertise. Based on the classification of public incentives according to the value chain, it is possible to say that pre-production research and development (R&D) services are supported, as well as some classifications for export preparation and advanced marketing (United Nations, 2008: 245). However, despite all this, there are situations where public interventions are necessary due to the uncertainty of the investment process and return, especially in the emergence of investments that are considered essential, primarily based on incentives. In this context, it is observed that financial interventions in these areas also reveal another aspect, in addition to directing public incentives to productive areas for essential elements that will provide economic development.

It is seen that in each case, which may be the case with public incentives, especially with an investment incentive certificate, the comparison of public incentives in countries with risk models at the global level (IMF, OECD, UN and World Bank, 2015: 26). This means that there are some support areas for international financial incentives in this framework of possible global risk models related to global trade (Engel et al, 2010: 42). Despite all this, it is seen that the situations that support small and medium-sized enterprises in general in all sectoral investments and the emergence of public incentives for export-oriented state aids come to the fore even more. These structural approaches, which have turned into a more concrete program with R&D support, constitute an important purpose of R&D supports, innovation programs of Small and Medium-Sized Enterprises (SMEs), and public incentives in the process. Nowadays, when new technological developments are provided, the level of influence of production information comes to the fore at every opportunity (Rupeika-Apoga, et al, 2022: 4).

The necessity of supporting the institutional production process with information-oriented and technological-oriented areas can be considered the second priority objective of public incentives. However, it is understood that in the globalization process, where the increase in information technologies has come to the fore and scientific economic liberalization has taken place on an increasing scale, public incentives have also revealed a vital technology transfer content, especially in developing countries. Despite all this, it has been seen

that it is inevitable to create an economic locomotive of advanced industrial management practices with public incentives, especially after the 1970s, with the free market economy coming to the fore at the global level. At the same time, efforts to develop the technical and technological infrastructure, mainly including universities, have led developing countries that aim for innovation and want to transfer technology into new searches with new infrastructures (United Nations, 2005: 8). It has become inevitable that the meaningful purposes of public incentives at every opportunity and the revealing of their expressive dynamics in practice should be supported by the private sector and public incentive-oriented production policies. Despite all this, it is evident that the financial policies that can be implemented as a general incentive system and the weighted structure of the tax policies within the scope of these monetary policies constitute an essential mechanism of influence on the widespread system implementation of public incentives. Therefore, this presentation and set of practices, as a result of associating each element in strategic planning with public incentive policies, constitute the dynamics of different public incentive programs in a course in which the support tools in the system come to the fore (Burgess et al, 2004: 23).

2. Classification of Public Incentives Related to Priority Value Chains and Programs' Position

The concept of public incentives generally covers some quite broad public activities and financial transactions. In other words, directing public incentives can be possible with some direct cash transfers and the existence of elements that can be added with financial infrastructure support. In this sense, while public incentives share financial burdens in material terms, they also reveal some objectives, especially in realizing investments and sharing the risks related to the process. This approach, which can be expressed under direct incentives, also means sharing a certain risk with financial public incentives, especially in the realization of investments and ensuring the sustainability of investments (Gordon, 2008: 95).

2.1. Structural Distribution of the Scope of Public Incentive Policies, Targets

The structural distribution of public incentive policies comes into question, especially with different applications and targets related to fiscal policies. These practices shape the application dynamics of incentive elements intended to structural improving-change targets in a structure that coincides with the main

objectives of public economics and fiscal policy. On the other hand, it is possible to evaluate low-interest loans, grants, the situation of non-refundable money, and direct low-interest support and loan offers made publicly to the sector or companies within the scope of direct incentives. In addition, this includes providing tax exemptions for social development and achieving economic goals without harming the market economy, “Value Added Tax (VAT)” exemption, and evaluating the investments made by companies within the scope of direct incentives with some exceptions (United Nations, 2000: 29).

In terms of indirect incentives, indirect supports include incentives for R&D activities. In this respect, it is seen that public incentives also express some priorities within the scope of supporting a structure where there is no state intervention in the free market economy and as a subject of research and development services. The purpose of supporting technical and technological infrastructure and sectoral development is to increase social welfare and achieve an economic activity in national target economic activities (Jednak, et al, 2014: 2). In this context, when public incentives are explicitly handled, it is generally revealed as an incentives support element in three main stages. Besides, the primary purpose of this globally accepted approach is to carry the efficiency level of public incentives to a particular purpose related to the priority economic targets. In this context, it is possible to list the three main stages that may be subject to public incentives as follows:

- ***Loans and Grants to Sectors by the Public as a Public Policy:*** In general, public incentives are in question through direct incentives within the scope of appropriate credit supplies and offerings to the sectors and unrequited financial aids for structural reasons related to the process. This structure of public incentives also includes credit policies and debt structures related to these policies. This situation means that the sanctions related to debt policies in all kinds of financial risk-sharing are assumed by the state as a risk. In general, it can be said that the economic development aimed at increasing the added value, which is aimed by the revival of the sectors, is mostly in question with public financial aids and loans in the process of public decisions. In general, the sectoral weighted public incentive structure, in which public incentives predominantly take place in the process, is shaped by this approach (Grittner, 2013: 11).
- ***Financial Based Public Incentives for Supporting R&D Activities and Technological Infrastructure Supporting:*** Supporting the R&D activities

of the sectors constitutes an important area in the indirect involvement of public incentives in the process. Supporting these activities for the development of industries and bringing this situation to a certain level of effectiveness at the global level with public infrastructure support is a fundamental goal of public policies. In this respect, this activity has an important place in supporting R&D activities and necessitates a cost-oriented risk sharing in which public support for technological infrastructure takes place in the process. This process, in which educational activities to support R&D activities at all stages are also within the same scope, and education abroad is also supported with public incentives and gratuitous scholarships. In addition, the existence of standards regarding the global nature of commercial structures is measured by the effectiveness of R&D studies in the process. In this respect, the education-oriented structure of public incentive policies reveals an essential economic target focus in this sense, such as supporting public incentive policies based on sectors and all areas closely related to sectors. It is certain that R&D studies, especially activities to support the technological infrastructure for sectors, make a crucial indirect contribution, especially to the provision of technical infrastructure. Supplying public support for the values that can reach high standards in all industrial sectors aimed to develop technologically is shaped as a global target among the primary objectives of public incentive policies (Demircioğlu, 2020: 72).

- ***Public Incentives for Education-Development Purposes for Research Institutions and Universities:*** Increasing the quality of human capital has an important place in increasing public welfare and achieving the desired economic targets. In other words, this approach, which means improving the quality and infrastructure of education, also reveals the main criteria that must be met at the education level within a certain global quality standard. Presenting this obligation to a society based on public incentives and distributing educational infrastructure services to all segments of society is an essential public incentive policy objective. It is obligatory to support the pieces of training in other areas of specialization for development that can be realized within the scope of this purpose, based on sectors, and with public infrastructure in all areas of research and development. All kinds of unrequited aids for R&D activities and educational approaches, which take place in the process as the primary objective of social policies, and to ensure

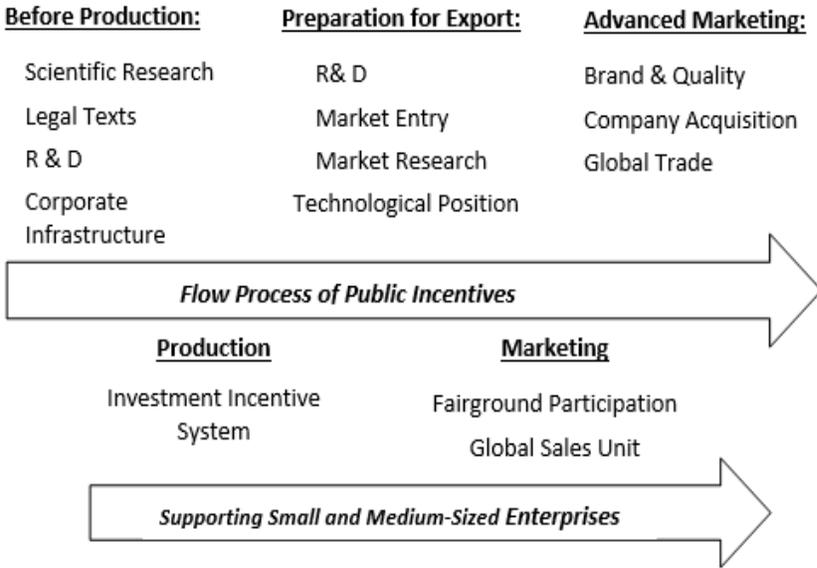
equality of educational opportunity in all segments of the society, constitute the central theme of this subject. In this context, it is possible with public incentive policies to support all kinds of education sectors and to create a standard economic policy with public incentive policies by increasing the quality of human capital for education (Tullao and Cabuay, 2013: 52).

The targets of the public economy, especially within the growth standards, also include some public legal entities, including public incentives. In terms of all these, it should be emphasized that public incentives constitute a whole not only as a private sector-based public incentive policy but also as an incentive element with the improving values that Public Economic Enterprises (PEE) can be concerned with.

2.1. Priorities of Public Incentives in the Scope of Public Economy and Incentivises Process

It appears that among the objectives of the public incentives, the target of reducing the current account deficits and a stable public economic policy reaching the targeted macro values in the process has an important place. It can be said that the most crucial aim of public incentives based on the public economy is the development of production processes and the attainment of the standards of an open market economy based on the export improvement.

As mentioned before, it should emphasize that public incentive policies related to the public economy primarily focus on current account deficits with export-oriented targets for economic stabilization (OECD-a, 2018: 26-27). This approach also reveals the other stages of advanced marketing for production for export. Supporting companies' infrastructure, especially with public changes, and the global trade-compatible structure of the technological infrastructure constitute the critical focus of export-oriented approaches related to the public economy. On the other hand, this approach also means supporting small and medium-sized enterprises, which can continue with different scales and a public partnership on cost elements before large-scale companies with a sectoral infrastructure. In terms of the public economy, reducing the costs of these financially small-scale companies will create a significant public economy effect and increase the regulatory impact of the public sphere. It is possible to see the value priorities supported by public incentives based on the public economy in the Figure 1 below:



Source: Kalkınma Bakanlığı (2018), *On Birinci Kalkınma Planı (2019-2023): Teşvik Uygulamalarında Etkinlik, Çalışma Grubu Raporu*, Yayın No: KB: 2996-ÖİK: 778, Ankara: Kalkınma Bakanlığı, 2018, p. 17.

Figure 1. Classification of Value Priorities in Public Incentive Practices

As seen in Figure 1 above, it is possible to divide the public incentive policies into two as pre-production and post-production incentive policies in a mixed economy where the public economy is also in question. However, it should emphasize that all kinds of export-oriented public economy activities create a mutual infrastructure with the private sector with technical positions. Mainly, scientific research and R&D studies in the pre-production stages are supported by legal issues and financially burdened by the public economy constitutes a vital process that emerges with the development of a sectoral infrastructure. Afterward, especially in the preparation phase for the export and production phase, the other process in which research and development related to market entry and market research also have a vital place constitutes the external-oriented public sphere of public incentive policies (Candan and Yurdadoğ, 2017: 168).

The goals of opening this position to global markets by supporting it with technological infrastructure and creating a global trade infrastructure constitute an essential element of the financial support policies directly related to the public economy. “*Export Exemptions*” practices “*Tax Advantages and Tax Reductions*” in purchasing, “*Investment Discounts*”, “*Low Corporate*

Tax”, “*Accelerated Depreciation*”, “*Export Free Zones*” are public economy practices that have an important place in protecting the competitiveness of the national public economy and preventing capital flight. On the other hand, with the positive support of the added value and profitability created on the public economy, it is meant to create a higher employment scale for production, maintain technological development, and increase productivity by eliminating regional imbalances (Duran, 2003: 8).

In this respect, the flow of public incentives constitutes a whole mechanism with the macro targets based on the public economy. However, there is no doubt that public incentives for these economic practices, which we have mentioned above, related to the public economy, also gain effectiveness with financial practices. This priority includes the approaches and practices of financial incentives, which can be the subject of financial applications that can contribute to the public economy and national income values in general. In this context, the existence of some exceptions, especially in terms of fiscal practices and the creation of an incentive policy with the common values of the budgetary policy associated with some monetary policy, have an important place.

In this context, it appears that a significant investment contribution and economic added value are aimed with applications such as customs “*Tax Exemption*”, “*Social Security Institution Premium Support*”, *Investment Location-Allocation*, and *Interest Support*, which are subject to some possible applications. In terms of the public economy, all kinds of applications related to primarily interest support, especially for applications related to monetary policies, reveal the effect of increasing the incentives of the public economy’s economy-oriented cost incentive policy. This fact means that the whole related fiscal-economic contributions in the sectors with its support in financial applications, which aimed to improve the economic sectoral infrastructure as economic focused (Timilsina et al, 2020: 4).

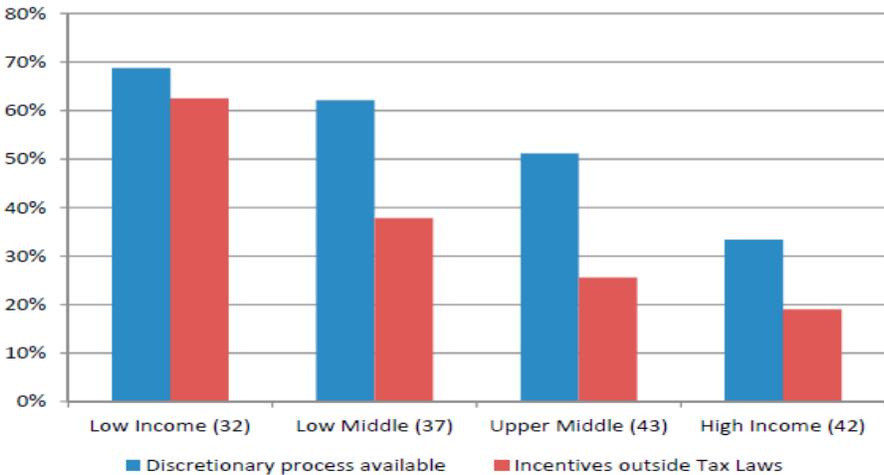
3. The Global Position of Sectoral Fiscal Oriented Incentives Practices and Expectations

Undoubtedly, the fact that is one of the most critical areas of public incentives as international as well as national area. Implementing public incentives in the scope of the shared standardizations to create common welfare and global sectoral development and international standardization forms the global front of financial incentives. In implementing public incentives, it should emphasize that the classification of countries according to their financial position at the global level is primarily based on taxes, which form an essential application area with tax incentives.

3.1. Global Formative Distribution of Tax-Focused Public Incentives

Understanding the structure of financial incentives in the public economy according to tax burdens and development levels in a framework where the development level of countries is divided into three main categories reveals important information. In this respect, it appears is seen that a fundamental level of structural efficiency shows a correlation with the level of development in understanding all kinds of economic-commercial transactions between countries and the contribution of financial incentives to the economy, especially as export incentives (Başarır and Sarihan, 2018: 506).

This correlation also reveals essential criteria regarding the global trade relations of nations and the sharing of the financial burden in their global trade relations. The position of financial incentives at the worldwide level is also an expression of a process in which it is significant to carry out international trade in a healthy way and realize it on a mutually commercial solid basis. In Chart 1 below, it is clearly observed that the position of tax incentives according to the level of development of the countries at the global level and the tax incentives according to this position revealed a significant difference between developed countries and less developed and developing countries. It is possible to monitor this situation, which is significant in terms of public incentives that are based on the tax implementations is, in Graph 1 below:



Source: IMF (2015), *Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment*, Washington D.C.: International Monetary Fund (IMF) Publications, October 2005, p. 25.

Graphic 1. Global Distribution of Tax Public Incentives by Level of Development

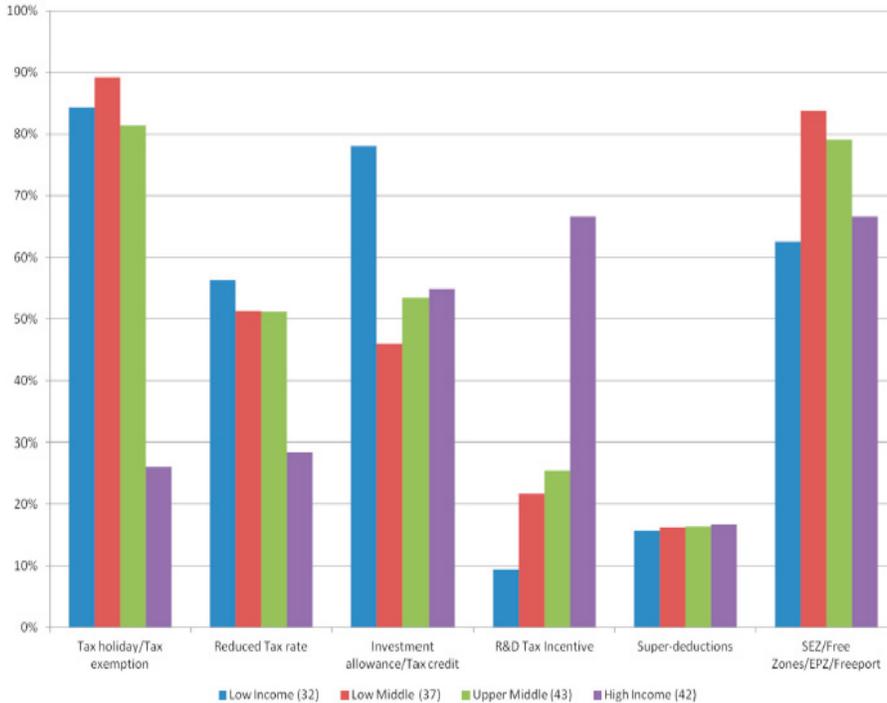
Graph 1 above highlights public incentives for tax-based practices by dividing them into two main parts. It is observed that the structure regarding the use of tax incentives on demand and the demand for incentives has reached a very volatile level at the global level as of 2015, and this ratio approaches 70 percent on the basis of low-income countries. This fact has been revealed especially in export-based applications for investments for low-income countries. In addition, it is observed that tax-based incentives, especially in the amounts that can be subject to non-tax applications, have a high rate in low-income countries. In contrast, in high-income countries, tax incentives other than tax laws show a significant decrease below 20 per cent. The point that should emphasize here is that developing countries with lower national income need financial incentives more in tax-based or non-tax applications and use these public incentives more. This requirement of developing countries, which is public financial support, also means that they prefer financial incentives for preferential use of credit for the process. It is understood that as the level of development in countries increases, for example, between lower-income countries and middle-low income countries, and then between countries that partner with them, the need for public incentives decreases (Alonso, 2014: 11).

It reveals that export-based requirements provide significant incentives from the sectoral level of development, especially in high-income countries, with less need for public incentives. This situation also means that high-income countries have less need for public incentive policies in global trade areas. These countries that have higher-income countries put the added value they produce into more use at the international global level. Another reason incentive other than tax laws are lower in high-income countries and especially in terms of export products is that they have been able to use their preference rights at the level they want, except for their non-tax applications (OECD, 2015: 59). This inversely proportional relationship of public incentives with the development level of countries is also because while public incentives bring the public economy to the fore, sectoral supports create a significant public activity at the same level or even more. This public activity also means the contribution value of the financial savings that the countries have developed within themselves in line with different sectoral production standards (U.S. Department of Commerce, 2015: 33). Namely, it also reveals that the tax system is in a more effective position as the financial incentive system of the priority tax systems in export incentives globally, especially for low-income countries due to lack of national savings. This means that these countries need public incentives less, and the sectors use their financial savings values more effectively at the global level.

3.2. Global Position of Tax-Oriented Public Incentives by Level of Countries Development

The fact that the added value produced based on sectors is lower in low-income countries undoubtedly public incentives structurally increase the scale of mutual intervention of the public economy. This structural fiscal transformation process draws the financial contribution value of the public sector to the sectoral central management position as production added value to these countries. On the other hand, this structure means that the effect of the public on economic growth has increased and has turned into a mutual financial rationing phenomenon between the public and private sectors (Wagenvoort et al, 2010: 20).

It is crucial to understand the process according to the development position of the countries at the global level, together with the dynamics of public incentive applications. This importance is related to the nations' new development level and reveals the importance of the distribution of implementation dynamics in these countries based on public incentives. This significance in the distribution of global public incentives also demonstrates the difference in importance and impact scale of public incentive policies according to countries. In other words, it expresses based on public incentives what kind of effect scale the public incentives create, especially between low-income countries and high-income countries (OECD, 2018-b: 29). In this respect, it appears that the public incentives have more offered, especially in terms of investments, in countries with higher incomes. Generally, the highest income countries of the developed industrial countries prefer and use public incentives for investments to a significant extent. However, the fact that tax incentives and expanding tax exemptions occupy an essential place in developed countries creates a critical position in preferred financial incentives (OECD-b, 2018: 6). On the other hand, in income-level countries, what we usually as expressed Tax Holidays or Tax Deferrals also seem to create a more politically significant public incentive element with borrowing policies. In Graph 2 below, it is possible to see the structural relationship between the application forms and dynamics of tax-based public incentives and the differences in countries' income levels.



Source: IMF (2015), *Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment*, Washington D.C.: International Monetary Fund (IMF) Publications, October 2005, p. 9.

Graphic 2. Global Distribution of Tax-Based Financial Incentives by Implementation Dynamics

As can be seen in Chart 2 above, it appears that the development gap between countries is exceptionally effective and determinant in the use and distribution of public incentives. Especially in countries with low national income, investment volume is targeted mainly based on Tax Deferral and borrowing policies. In contrast, it is possible to discuss an added value that is targeted phenomenally in developed countries especially created for the free zone and global trade area. In this context, it is seen that the global financial expectations regarding international financial policies are higher in countries with high-income levels; however, it appears that legal regulations are primarily in developing countries with low-income levels and medium levels. In terms of public incentives, this situation also finds a more meaningful place in developed high countries that R&D supports can be at a higher level with publicly supported policies (Zedtwitz, 2006: 117-118). The fact that tax incentives for R&D studies are more meaningful, especially in countries with high income, can be interpreted

as public financial incentive support to increase the national efficiency at the global level to develop technical and technological infrastructure. However, in low and middle-income countries, it is seen that the tax structure for the creation of a financial incentive is often found with the frequent changes in the tax rates of public incentives. It is understood that the more fragile economic structure in these countries often creates a public incentive activity with a more variable form of tax rates and tax system (Kleem, 2009: 8). On the other hand, based on tax variability of public incentive policies, the mutual fiscal incentive relationship with global financial practices based on these variability's is also considered the adaptation process of these developing countries to international financial integration. It is also observed that this phenomenon increases the debt limits to international institutions, which are shaped based on global debt limits and expectations as public incentive policies for these underdeveloped countries.

4. Conclusion

Today, it appears that public incentives have an important place in terms of economic growth targets, and their meanings, especially for all developing countries, take place in the process with different levels of impact. The effectiveness of all financial resource formations in the target economic development of emerging economies and low-income countries, especially in the existing process with public financial incentives, reveals the structure of public policies that also shape public decision-making processes. In this context, we see that public incentives create significant structural scale effects on certain factors such as unemployment, inflation, and current account deficits, which are expressed as macroeconomic balances, in addition to reaching existing economic targets. When the subject is considered based on sectors, public incentive policies aimed at increasing the production trend to increase all kinds of added value created based on industries and significantly increasing exports at the global level are used as an important financial contribution tool today. In this respect, all kinds of practices in which incentive policies are included in creating economic value constitute the common point of public incentive policies within the scope of financial policies. It is also seen that this point represents a structural process that can create a meaningful integration between countries with the current global level of influence of public incentive policies. The fact that public incentive policies occur in the process, especially with fiscal-based tax policies, creates a crucial structural impact surface in understanding the impact values of taxes as an essential public income. This meaningful scale of impact also reveals a process of economic and financial change in which different

structural changes and transformations are also targeted. The increase in global expectations today, while expressing different global formations regarding tax integrations, especially in the emergence of public incentive policies, on the other hand, contributes to the creation of a shared commercial portfolio that can provide global integration of countries. In this respect, it has been understood that public incentive policies in today's globalization process provide a crucial economic ground in the globalization process, apart from the contribution of public incentive policies not only to the development of sectors and to bring national macro values. In particular, it appears that the increase in exports at the global level and the level of mutual international trade are meaningful in terms of their contribution to R&D studies, with effective incentive policies. Regardless of the point of view, the fact that R&D studies are also supported based on sectors and that these supports take place with tax-based incentives within a financial policy chain is an effective form of structural implementation today.

On the other hand, it is understood that public financial incentives for changing the tax rates and tax structure according to the income classification of the countries regarding the handling of public incentives on a global basis are more common, especially in countries with low-income levels. In other words, low-income countries are in a position to prefer public incentives to take place in the process with changes in current tax rates and differences in practices. On the other hand, in countries with a high-income level, this structure generally comes into question as some optional sectoral incentives come to the fore rather than changing tax rates and tax structure. This fact reveals that R&D studies are more supported in these countries. It should emphasize that Tax Deferrals and Tax Exemptions, especially in low-income countries, are widely expanded and preferred as a public incentive policy regarding the impact values of public financial incentives at the global level. In addition, in developed countries with high-income levels, it is observed that financial incentives make a significant difference as they bring more regional development-oriented public incentive policies to the fore. But, it is understood that financial incentives for investments, especially in developing countries and emerging economies as an essential cost incentive element, are aimed to have a more meaningful commonplace for investments both in low-income countries and based on high-income countries. On the other hand, it is not a coincidence for low-income countries that aim for international financial integration that implementing Tax Deferrals or Tax Exemptions brings structural change policies to the schedule. However, the fact that tax incentives for R&D studies in high-income countries are at higher limits

also reveals that the boundaries of public financial incentives that increase on this basis are constantly growing at the global level.

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CHAPTER II

IN- SERVICE TRAINING

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1. Introduction

With the industrial revolution, although there are markets in which the one who produces more profits, a much more complex market and competition structure has emerged for businesses with the developing technology today. For this reason, businesses are trying to keep their costs as low as possible as well as increasing their income. Human resource is the most important and costly resource of enterprises. Institutions can neither earn extra income by employing less staff than necessary, nor can they incur extra costs by employing more staff than necessary. For this reason, it is important to use the personnel efficiently and to work with the optimum number of personnel, and at this point, the need for training of the personnel arises.

The concept defined as in-service training refers to providing the necessary training to the personnel of the enterprises in order to do their job in the best way. Businesses give more importance to education every day, and in parallel with the increasing training, the costs of education are increasing day by day. The question that arises here is whether the training given and the costs incurred for the training are compensated. Businesses want to determine how successful the trainings they spend a lot of money are and how much they benefit the business. In the literature, it is predicted that education can be measured at four levels, and these levels are shown as reaction, learning, behavior and outcome. However, concrete measurement remains only at the learning level.

Staff training is a must for businesses, but it entails huge costs. Therefore, it is important to organize correct, effective and efficient trainings. In today's businesses, where the concept of learning organization has become widespread and adopted, testing the effectiveness of the training and measuring the

development of the employee play an important role in ensuring the continuity of and benefiting from the in-service trainings organized. In this study, which is organized as a general literature review in the light of this information, the concept of in-service training, its features, aims, requirements and benefits, types and evaluation are examined.

2. The Concept Of In- Service Training

Education is generally defined as the process of acquiring and developing valuable and necessary skills, attitudes and behaviors for individuals in society. (Lin and Hsu 2017, 127) In the globalizing world and developing market conditions, it has become a natural necessity for businesses to develop their employees in order to strengthen and compete. For this reason, institutions attach great importance to training activities in order to ensure the development of their personnel in every field and in every sense. In addition to the large costs, it should be noted that more than half of the education expenditure in a person's life consists of post-school education activities, including training provided by the company (Ertürk 2018, 55).

Efficient use of workforce is also a must for organizations that aim to do the most work with the least amount of workforce. Every business working to ensure sustainability in today's market is aware that efficient use of workforce plays a key role in reducing costs (Uşun and Cömert 2003, 126). Ensuring that the employee can do the job in the minimum time and in the most effective way is one of the goals of the enterprises and this can only be achieved through training. Therefore, companies that recruit suitable personnel for the job in the first place also train their personnel for the purposes and strategies of the institution for the development of personnel (Barron et al., 1989, 3). In this way, the trainings that companies apply for the development of their personnel are collectively called in-service training (Öztürk ve Sancak 2007, 762).

According to Lin and Hsu (2017, 127) in-service training; In accordance with the demands and needs of the institutions, they have defined the professional competence of the personnel in their routine work in terms of skills, knowledge and behaviors. The first purpose of in-service training is to ensure the development of employees for the profession. For this reason, the scope, objectives, features and duration of in-service training may vary depending on the sector in which the enterprise operates, the market or the position and position of the personnel in the enterprise. For this reason, in-service training should be prepared with great care and carefully examined whether it is suitable for the purpose or not.

2.1. Features of In-Service Training

Kirkpatrick (2006, 34) mentioned in his study that there are 10 consecutive steps to be considered in an effective in-service training program. These steps are as follows (Kirkpatrick 2007, 34):

- Identifying needs.
- Setting goals.
- To determine the content of the subject.
- Selecting the participants.
- Determining the best calendar.
- Choosing the appropriate location and trainers.
- Choosing audio and visual aids.
- Coordinating the program.
- Evaluate the program.

Although the training programs are implemented by the human resources departments within the enterprises, close communication with other departments and especially with the managers should be maintained in determining the training needs. This communication is vital in determining training needs. Although human resources are constantly working for their training needs, as practitioners, the departments should accurately identify the needs of their employees and report their training needs to the human resources. (Uşun ve Cömert 2003, 127).

In the process of planning and implementing a good training program, these steps must be carried out carefully and in harmony with each other. Skipping any step in an in-service training carried out in accordance with the purpose will reduce the efficiency of the training and may lead to the inability to reach the desired target. The biggest risk in this regard is the incompatibility of the participants with the training to be given (Öztürk and Sancak 2007, 763). After the needs are determined and the content of the training program is designed, the selection of the participants should be carried out in accordance with the training program. It is of great importance to select the personnel who can make the most of the training to be given and to whom the training is addressed. (Akdemir 2012, 27).

After determining the needs, what needs to be done is to set the target for the training. Although the first thing that comes to mind as a goal here is to increase knowledge, acquiring a new skill or developing an existing one can also be the goal of education. While determining these targets, the short and long term policies and strategies of the enterprise must be taken into consideration (Karacaoğlu 2009, 5).

In order to obtain maximum efficiency from any training, all stages must be carefully reviewed. Otherwise, an education that has been paid for will not be able to pay off. This creates an extra cost for the business and causes the loss of the trained workforce. Finally, the organized training needs to be evaluated. Education should be evaluated both in terms of measuring the efficiency of the education given and in terms of shedding light on the education programs to be made in the future. (Kirkpatrick 2007, 35).

2.2. In-Service Training Objectives

The main purpose of this type of training is to create a positive development in the behavior of the employees in order to reach the standards determined and requested by the organization (Demirtaş 2010, 43). The main purpose of in-service training is to bring about positive changes in the behavior of individuals in order to reach the standards required by the institution (Demirtaş 2010, 43). Although the aims of training differ in terms of personnel and business, the business primarily tries to ensure that its employees have sufficient knowledge to fulfill their duties and benefit the organization. In addition, it is important to gain skills in a way that will enable them to learn more easily with the acquired knowledge. Increasing profitability, which is the theoretical primary goal of businesses, is one of the most important goals of education. Thanks to the trainings, businesses aim to both increase their production and increase their profitability. This is a point that is seen as the reflection of education on the result (Eren vd. 2009, 31).

Training is used to increase productivity. Especially for production organizations, providing optimization and transferring information without interruption are among the aims of the training. In addition, the biggest purpose and the most used area of in-service training is to raise the positions of the employees and to prepare their careers for their future periods. The trainings prepare the personnel who will be promoted for their new jobs. In this respect, the trainings motivate the personnel. (Gürel 2009, 20).

To summarize, the main purpose of in-service training is to make the personnel most useful in the organization and to increase the benefits of the personnel to the enterprise, while for the personnel to acquire the skills and knowledge to do their job in the best way:

2.3. Benefits and Necessity of In-Service Training

It is accepted that education, which can also be defined as an investment in human power from an economic perspective, is a necessity within the scope

of businesses, and that formal school education is neither special nor sufficient for the employee. Graduation from a school at a certain level does not indicate the completion of the educational process (Mincer 1962, 50). In addition to the adaptation of the employees to business life, the missing characteristics of the work they will do should also be developed. In this regard, the importance of human resources departments of enterprises emerges (Kaya vd. 2013, 43).

Selecting the personnel to be recruited as closest to the job to be done reduces the training costs to be given to the personnel and thus the training costs. Thus, the business can reduce both the training costs and the job loss of the personnel during the training period. For this reason, personnel evaluations and job descriptions should be made carefully by the human resources management. Although graduation from a good place creates an advantage in giving priority to the personnel, it does not eliminate the necessity of in-service training. Companies also plan trainings for their employees according to their own structures and strategies (Görmüş ve Kahya 2014, 38).

In-service training in companies provides various benefits for both the employee and the employer. According to Becker's Human Capital Theory (1964), there is a negative correlation between education and turnover in companies. Since the trainings increase the loyalty of the personnel to the company, they are effective in reducing the leaving the company (Booth and Bryan 2005, 392). Praslova (2010, 216) also highlights the similar aspects of in-service training and shows that in-service training increases the profitability of the company, raises morale within the company, helps the personnel to understand and adopt the company's goals, plays a role in creating a company image, increases the problem-solving abilities of the personnel and strengthens communication. advocates. Ubeda Garcia et al. (2013, 2852), on the other hand, summarizes the benefits of in-service training in terms of institutions and personnel in six items. These items are as follows:

1. Improving poor performances is possible with education.
2. Production and productivity can be increased by training.
3. Companies that can provide flexibility and adaptability to change with training are more successful in surviving.
4. With education, organizational commitment increases while leaving the job and absenteeism decrease.
5. Work accidents can be reduced by training and a safer working environment can be created.
6. Training should be used as an important tool to increase employee satisfaction.

2.4. *Types of In-Service Training*

The trainings given to the personnel within the companies differ both in terms of application purposes and places of application. In terms of practice, training can be listed as follows (Şahin ve Güçlü 2010, 218):

- Practice or harmonization training,
- Development training, reassignment training,
- Information and compliance training for new legislation or policies,
- Special field training.

According to the place of application, in-service training is basically examined under two sub-headings. These are as follows:

1. On-the-job training: On-the-job training is mostly implemented within the framework of the teacher and the learner. The employee receives his training while working from a staff with more experience than himself. For businesses, this type of training is advantageous both in terms of not losing workforce and in terms of transferring knowledge directly from staff to staff. In addition, not incurring any costs is also effective for businesses to apply this way. However, the duration of such a training is also longer than normal. Personnel can reach desired levels in longer periods with on-the-job training. In addition, both the continuation of the work and the development of the personnel can create hazards in terms of work flow. (Öztürk ve Sancak 2007, 735).

2. In-class training: In-class training is a method frequently used by businesses. The biggest advantage of in-class training is that the staff is completely focused on training, so the efficiency is higher. Another advantageous aspect is that the trainings, which are carried out with the help of many different methods and visual and audio tools, can be shaped as desired (Huang & Jao, 2016, 121). The biggest disadvantage of in-class training is the loss of workforce. Since the personnel who receive training are not at their job in this process, it creates a certain cost. The cost of the personnel participating in the training should be calculated on top of the costs necessary for the organization of the training. (Bacak vd. 2016, 558).

2.5. *Evaluation of In-Service Training*

Personnel training is a necessity for companies and also creates an important cost item. For this reason, an inefficient or unhelpful education is reflected in the institution as both training costs and loss of workforce (Tatlı and Kılıç 2013, 139). It is obvious that there is no return in spite of its cost. Considering this,

the measurement of the effectiveness and success of each educational activity becomes important. In addition to measuring the efficiency and added value of training, these measurements should be made meticulously in order to shed light on future trainings. The decision to continue or change these trainings with the same companies, for which large expenditures are made for companies that outsource their training activities (especially training and consultancy companies), can be made objectively as a result of these measurements.

Kirkpatrick (1959, 11-12) states that the evaluation of education can be measured in four stages. These four levels are named as reaction, learning, behavior and result (Kirkpatrick et al. 2002, 33).

Reaction; expresses the reactions of the personnel participating in the training about the training. Measuring reaction about training can be seen as easy as it is important. Measuring the reaction can be done by means of a small questionnaire to the staff or smile cards. However, it should not be overlooked that the results of reaction measurement may not always be in the same direction as the benefits of education. It is clear that a training that is appreciated by the participants may not always have a high contribution to the participants. On the other hand, a very effective training can be carried out even though the participants are not satisfied (Farjad 2012, 2839).

Learning; The second level of learning can be considered as knowledge, ability or attitude. As learning, the increase in the level of knowledge of the personnel on the subject or, if the training is on a technical subject, whether their skill has improved or not is measured at this level. Although measurement at the learning level is more difficult and costly than reaction, it gives clearer results in the evaluation of education. Measurement of knowledge or ability can be made with tests to be done before and after the training. In this study, the evaluation of education will be made at the learning level, and the evaluation of the pre- and post-test results and whether the difference is significant (Lin et al. 2011, 927).

Measurement; According to Kirkpatrick, the third level measurement is behavior. At this stage, it is tried to measure the changes in the behavior of the personnel participating in the training after the training. The difficulty with this is that it is not very possible to measure until there is a positive behavior change. In addition, it is very difficult to determine any time for measurement, since it is not known how long after the training will lead to a change in behavior (Kirkpatrick 2007, 37).

The measurement of education at these four levels, which was first introduced by Kirkpatrick in 1959, has become the most used model, supported by a critical

perspective over time. However, various criticisms have been made over time. Kaufman and Keller (1994, 375) considered the first stage more broadly and argued that it was appropriate to add a fifth level. After measuring the results of the training for the company at the fourth level, it adds customer satisfaction and social impact as the fifth level.

On the other hand, Alliger and Janak (1989, 340) argue that the evaluation system developed by Kirkpatrick contains a hierarchy within itself and that the final stages are therefore more important than the first stages. For this reason, it draws attention to the fact that the first stages are skipped and the final stages are taken into consideration by the human resources departments in practice. In other words, companies are more inclined to measure training at the conclusion stage. This creates the possibility of misinterpretation of the results and the efficiency of the training.

Although there are many criticisms on it, the four-level system proposed by Kirkpatrick is still the most popular and useful system for the evaluation of training programs in enterprises. Criticisms and improvements are mostly in the form of expanding the scope of the levels or changes in the first or last stages. In this way, Brinkerhoff (1987, 55) presented a six-stage assessment system.

When the subject of educational evaluation is taken into consideration, Kirkpatrick's model is accepted as the basis, and it is seen that studies are carried out with similar approaches. However, if the levels are taken individually, the reaction measurement at level 1 does not carry very precise results in terms of evaluation of education. If the measurement of trainees' responses is evaluated alone in terms of evaluation of education, it can give inaccurate results. At levels 3 and 4, where behavior and results for the company are measured, it is very difficult to discern the full contribution of training. It takes time for what is learned after training to turn into behavior. (Reio et al., 2017, 47) In other words, considering that the duration of transformation into behavior will show subjective differences, it seems very difficult for the evaluation of education to give objective results at this level. If it turns into a behavior, it is still not possible to measure the benefit and effect of the training. It is stated that there are many factors in the transformation of the education given in any unit into behavior. The conclusion stage, which is seen as the ultimate goal of education by companies, continues to be discussed in the studies carried out. (Reio et al. 2017, 49) At this stage, education is evaluated with concrete measurable data. However, regardless of the subject of the education, it is a matter of debate how much of the increase in profits or the increase in the production level can be explained by education.

Many events that take place within or around the company affect the period-end data of a company. When the training is evaluated by looking at the results achieved in a company that develops human resources with training, it does not seem possible to determine the effect of training. Explaining the positive data in the results that the education is positive or seeing the education as negative when the results are negative does not mean that the education is evaluated correctly. In this respect, it is claimed that there is no direct correlation between education and results (Kucherov and Manokhina 2017, 138)

3. Result

In-service training, which has become a necessity for businesses, also creates serious costs for institutions. Enterprises that try to prepare their personnel to fulfill their duties and add value to the enterprise organize in-service trainings for their personnel. Today, most of these trainings are provided by training and consultancy companies. In addition to the costs incurred for the provision of trainings, the inability to use the workforce during training doubles this cost. For this reason, businesses need to plan their training very well.

First of all, it is of great importance to determine the needs and identify the participants. It is also important to measure whether the trainings organized in return for the costs incurred are successful in terms of results. For this purpose, businesses resort to different ways to evaluate trainings.

The most widely used assessment of education in the literature is Kirkpatrick's proposed 4 levels of measurement. These levels are called reaction, learning, behavior, and outcome. Reaction is the level at which participants' thoughts about the training are measured. In general, companies measure their personnel at this level through post-training satisfaction surveys. However, it is seen that the reactions do not give much idea about the effectiveness and success of the training. Providing training to a large number of personnel within the group provides benefits to the business both in terms of ensuring uniformity and reducing costs. However, as seen in the study, when education is evaluated, different results are obtained both on the basis of subject and brand. Therefore, the evaluation of such training is of greater importance. Thus, it will be possible to plan future trainings and compare the benefits provided with the possible costs.

Providing training to a large number of personnel within the group provides benefits to the business both in terms of ensuring uniformity and reducing costs. However, as seen in the study, when education is evaluated, different results are obtained both on the basis of subject and brand. Therefore, the evaluation

of such training is of greater importance. Thus, it will be possible to plan future trainings and compare the benefits provided with the possible costs.

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CHAPTER III

PSYCHOLOGICAL VIOLENCE AT THE WORKPLACE (MOBBING): IT'S EFFECTS AND CONSEQUENCES*

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1. Introduction

The fact that psychological violence (mobbing) is of great importance for organizations and that it is perceived as an important source of stress in working life (Jiménez et al., 2009: 359) has made it a subject that has been studied academically in many dimensions in recent years, and many researchers have shown interest in this subject. In addition, in recent studies in the field of management and work psychology, a workplace-related psychological behavioral problem is mentioned among the reasons why employees complain about their work life (Fitzpatrick et al., 2008).

This phenomenon, which was thought to be a temporary problem and assumed to arise from the competitive environment brought about by globalization (Tınaz, 2008: 7-10), has been understood to be a problem that deeply affects organizations and individuals and even leads to suicides (Pompili et al., 2008; Aksu & Balcı, 2009; Susan, 2009). The simplest expression of this question in our language is “psychological violence at work”.

It is known that the concept of psychological violence in working life was used for the first time in a report on “safety and health at work” by Swedish industrial psychologist Heinz Leymann in the early 1980s. The concept has

* This study was adapted from the unpublished master's thesis in the Department of Business Administration, Institute of Social Sciences, Gümüşhane University, under the supervision of M.Ferhat Özbek. Prof.Dr.M.Ferhat ÖZBEK, who was the consultant in the thesis study, waived his right of authorship.

started to be used in this form all over the world after the 1980s (Aiello et al., 2008; Namie & Namie, 2009; Yıldız & Erdem, 2009; Yıldırım, 2009).

The effects of psychological violence in the workplace can be examined in five basic categories: These are; The individual effects of psychological violence, organizational effects, family effects, social effects and effects on the country's economy (Davenport et al., 2003; Bentley et al., 2011). In the process of psychological violence in the workplace, the victim is the individual who suffers the most. The effects of intentionally and systematically repeated psychological violence emerge in the form of gradual damages on the individual (Tetik, 2010). As the effects of psychological violence on the individual; cognitive disorders, physical and mental stress symptoms, negative symptoms related to the nervous system and the production of stress hormones, muscle tension: back pain, neck and muscle pain, sleep problems: difficulty falling asleep, intermittent sleep and early waking, movement difficulties.

This study consists of three parts. In the first part of the study, the concept of psychological violence in the workplace is explained. In the second part, the types of psychological violence are examined. In the last part, the individual, familial and social-economic effects of psychological violence are emphasized.

2. Psychological Violence at Work

It is known that the concept of psychological violence in working life was first used by Heinz Leymann. According to Leymann, psychological violence is the systematic, immoral and hostile communication by one or more people to an individual in a workplace (Leymann, 1990; Leymann, 1996). In the Turkish literature, on the other hand, there are definitions parallel to the foreign literature. According to Tınaz, psychological violence is a kind of psychological terror applied in the workplace in the form of repeated attacks by other employees or employers (Tınaz, 2008). According to Çobanoğlu, psychological violence is defined as the oppression, confrontation, oppression and disturbing behavior applied by those who have power in business life (Çobanoğlu, 2005). Various definitions of psychological violence in the workplace have been made by different authors.

3. Types of Psychological Violence

Psychological violence can be applied to employees by their superiors, subordinates and other employees at the same level. The purpose of the application of psychological violence is to completely exclude the person from

business life. The mockery, humiliation, innuendo, and all aggressive behavior against the reputation of the person for the realization of this purpose are deliberate (Koç & Urasoğlu Bulut, 2009). The direction in which the behavior of psychological violence takes place is also an important issue. Psychological violence behaviors can occur vertically, horizontally and vertically within the organization (Çoban & Nakip, 2007; Demircioğlu, 2007; Şen, 2009).

In psychological violence against subordinates by superiors, “preventing a potential rebellion”; In psychological violence perpetrated by subordinates to superiors, factors such as “a reaction arising from not being included in organizational decisions or jealousy and envy directed at the superior person” may be effective in initiating the process of psychological violence (Demircioğlu, 2007). Vertical psychological violence behavior, which is rarely seen, is called the application of psychological violence against the manager by the employee (Çarıkçı & Yavuz, 2009). In the contemporary management approach, besides the manager’s cognitive intelligence, it is important that the employees have emotional intelligence that can create organizational synergy. Vertical psychological violence inevitably occurs in institutions managed by managers with insufficient emotional intelligence (Tutar, 2004).

Horizontal psychological violence, on the other hand, is a type of psychological violence that employees, who are generally in equal conditions, apply to each other for reasons such as envy, competition, personal discontent (Tınaz, 2008; Yaman, 2009). The reason for the conflict between the employees may be the conflict of authority or responsibility, as well as the desire to punish the more successful employees.

Vertical mobbing behaviors are directed only from top management to lower levels (Demircioğlu, 2007; Altınöz et al., 2010). It is known that psychological violence behaviors are usually committed by superiors to subordinates because of the superior’s power and authority, especially managing the employer complaint procedure, complaints are usually made to the superior, and the work of the employees is coordinated by the superiors (Aydın & Özkul, 2007).

Studies have revealed that the perpetrator of psychological violence is usually in a higher position than the people who are exposed to such behaviors, and even that it usually comes from the superior to whom the psychological violence attack is attached (Namie, 2002). Vertical psychological violence is a form of psychological violence that occurs because of the widespread use of discipline and force in bureaucratic organizations. In these institutions, cultural-related effects that originate from the existing organizational culture and that have penetrated the managers are also observed intensely (Güngör, 2008).

4. Effects and Consequences of Psychological Violence

It is known that psychological violence behaviors, which are becoming more and more common in organizations, cause negative results on employees, leading to physical and psychological health problems and even suicide (Pompili et al., 2008; Aksu & Balcı, 2009; Susan, 2009).

The person who is most affected by the psychological violence process is the person who is exposed to the psychological violence. As a result of psychological violence, the social attitude of the victim is damaged and his relationship with his colleagues decreases due to negative attitudes and behaviors. People around him now consider those who are exposed to psychological violence as “unsuccessful individuals”. The person has been excluded from the workplace, besides, he has entered the process of losing his professional identity (Tınaz, 2008).

Leymann (1996) evaluated the behavior of psychological violence in the workplace in five different ways. These; attacks that prevent the individual from expressing himself, attacks on social relations, attacks on the social reputation of the individual, attacks on the quality of life and work of the individual, and attacks that directly affect health. The effects of psychological violence in the organization can be examined in five basic categories: These are; The individual effects of psychological violence, organizational effects, family effects, social effects and effects on the country’s economy (Davenport et al., 2003; Bentley et al., 2011).

4.1. The Effects of Psychological Violence on the Individual

In the process of psychological violence in the workplace, the victim is the individual who suffers the most. The effects of intentionally and systematically repeated psychological violence emerge in the form of gradual damages on the individual (Tetik, 2010). The effects of psychological violence on the individual can be expressed as follows. (Kilburg, 2009; Quine, 1999; Cemaloğlu & Ertürk, 2007; Dikmetaş et al., 2011):

- i. Cognitive disorders: Difficulties in remembering, concentration disorders, reluctance, irritability, feelings of insecurity, depression, self-hatred, anxiety, stress, loss of confidence, decreased self-esteem
- ii. Symptoms of physical and mental stress: Nightmares, stomach and stomach pain, weakness, loss of appetite, crying and feeling lonely
- iii. Negative symptoms related to the nervous system and production of stress hormones: chest pain, sweating, dry mouth, heart palpitations

- iv. Muscle tension: Back pain, neck and muscle pain
- v. Sleep problems: Difficulty falling asleep, intermittent sleep and early waking
- vi. Movement difficulties: Weakness in the legs, weakness, fainting and tremors

It is inevitable for those who have such problems to become unable to work due to problems such as panic attacks, heart attacks, and severe depression (Martin & Helen Lavan, 2010; Adoriç & Kwartuc, 2008). The victim of psychological violence becomes a very touchy person with the change in the chemical balance at the mental level (Filizöz & Ay, 2011).

In addition to these individual effects, it has been determined that most of the victims of psychological violence have a decreased sense of achievement as their job performance decreases due to psychological violence. The social identity of the victim, who begins to doubt himself and his abilities, is also affected (Tiğrel & Kokalan). The person feels as if he has lost a part of himself as a result of psychological violence. In addition, it has been determined that those who are exposed to psychological violence perceive both their work environment and themselves as more aggressive, and in some cases, violence against third parties occurs (Minibaş & İdiğ, 2009).

4.2. Effects on Family Life

The uneasiness experienced by one of the family members is reflected to all family members. Behaviors of psychological violence experienced in the workplace not only negatively affect the victim himself, but also the family of the victim is negatively affected by the psychological violence he/she experiences (Martin & Lavan, 2010). A person whose mind is constantly stuck with the psychological violence he experiences at work should not be expected to be a source of happiness (Gün, 2010). Among the familial consequences of psychological violence, the pain of being in despair, experiencing confusion and conflicts, separation or divorce, its effects on children, loss of income for the family and therapy costs can be listed (Karcıoğlu & Akbaş, 2010). The increase in the number of unhappy individuals in the society also increases the indifference, unemployment and suicidal tendencies, and thus the peace in the family and society is disturbed.

4.3. Social-Economic Effects

The negative effects of psychological violence on the individual can be listed as follows; psychologically, the victim has been disturbed and is prejudiced against

everyone. This syndrome is a syndrome that manifests itself with sudden and unreasonable fears, very severe panic attacks, fear of death and loss of self-control at the same time. The most severe consequence of this syndrome is; it is the loss of self-confidence of the individual in social life (Tengelimoğlu & Akdemir Mansur, 2009). It can be said that the fear of psychological violence, which is more important than psychological violence, destroys the individuals who make up the society more and the people who use the identity of the victim are increasing. As a result of this, working life turns into an unbearable level, and a group of employees who are unhappy and uneasy emerge (Güngör, 2008). It is known that the consequences of psychological violence in terms of employees and business life are also observed on the society. These effects can be summarized as follows; The increase in the health expenses of the victims, their tendency to want early retirement increases the burden on the social health and pension insurance system (Mercanlıoğlu, 2010).

Psychological violence has economic risks for the organization and the economic cost of these risks may be higher (Gök, 2011). The legal struggle of victims of psychological violence to prove that they are forced to resign or that they have been terminated and to obtain their lost rights may impose more economic burden on employers (İlhan, 2010). Treatment expenditures to improve mental and physical health, loss of regular income as a result of job loss are the direct costs of psychological violence (Tınaz, 2006). The indirect cost of psychological violence, on the other hand, manifests itself in the form of low productivity and production, deterioration of product quality, loss of company reputation and decrease in the number of customers (Tınaz, 2008). This situation causes the country's resources to be wasted unnecessarily. It is important to prevent psychological violence behaviors as they cause psychological, social and economic losses to the individual, organization and society.

5. Conclusion

The fact that psychological violence is of great importance for organizations and that it is perceived as an important source of stress in working life (Jiménez et al., 2009: 359) has made it a subject that has been studied academically in many dimensions in recent years, and many researchers have shown interest in this subject. In addition, in recent studies in the field of management and work psychology, a workplace-related psychological behavioral problem is mentioned among the reasons why employees complain about their work life (Fitzpatrick et al., 2008). This phenomenon, which was thought to be a temporary problem and assumed to arise from the competitive environment brought about by

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The uneasiness experienced by one of the family members is reflected to all family members. Among the familial consequences of psychological violence, the pain of being in despair, experiencing confusion and conflicts, separation or divorce, its effects on children, loss of income for the family and therapy costs can be listed (Karcioğlu & Akbaş, 2010). The increase in the number of unhappy individuals in the society also increases the indifference, unemployment and suicidal tendencies, and thus the peace in the family and society is disturbed.

Psychological violence in the workplace, harmful, hurtful and unfair behaviors of employees towards each other in the workplace is an important problem that threatens working peace and that organizational managers have to solve. Therefore, managers should take into account the negative consequences of being exposed to psychological violence and try to prevent its occurrence.

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CHAPTER IV

THE EFFECT OF DIRECT FOREIGN CAPITAL AND PORTFOLIO INVESTMENTS ON ECONOMIC PERFORMANCE: EVIDENCE FROM TURKEY

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1. Introduction

Nowadays, along with globalization, the concept of foreign capital investment has become an important indicator in the economies of countries. Foreign capital investments play an active role in the growth process of developed and developing countries. While developed countries require foreign capital inflows to achieve long-term development, developing countries require capital investments to address debt imbalances, maintain macroeconomic stability, and create economic growth.

Foreign direct capital investments and foreign portfolio investments are the most important indicators of foreign capital investment into national economies.

Foreign direct investments speed up technological development in the country's economy and boost employment. Portfolio investments in developing countries help countries close the investment gap and finance the current account deficit. Foreign direct capital investments and portfolio investments may have negative repercussions on national economies in addition to their positive contributions. The country's balance of payments may suffer as a result of multinational companies transferring profits, or small businesses that cannot compete with multinational companies may suffer.

Foreign capital investments have played a significant role in Turkey's economy, particularly since the 2000s. The weight of portfolio investments and

other shorter-term and volatile investments has gradually increased during this period, while the share of direct investments coming to Turkey in net capital flows has gradually decreased. After 2010, portfolio investments increased even more and direct investments almost tripled. For Turkey, the ratio of direct investments to domestic product was around 1.5% per annum in 2002 and after. This rate was much higher in the mid-2000s, when major privatizations were taking place, and it is now only about 1.1 percent after 2010 (Benlialper et al., 2016).

The aim of this study is to investigate the effect of foreign direct capital and portfolio investments on economic performance in Turkey between period 2000Q1-2021Q1. Economic performance in the summer is often associated with economic growth. Unlike other studies, Turkey's economic performance value is calculated according to the Economic Performance Index (EPI) proposed by Khramov and Lee (2013), and accordingly, the effect of foreign capital investments is investigated with VAR analysis. Another aim of the study is to reveal the components with which the economic performance index can be developed. For this, the causality relationship between foreign direct capital and portfolio investments and the economic performance index is also tested.

The conceptual framework is discussed in the next section of the study. The third section discusses the literature, the fourth section the methodology, the fifth section the empirical findings and the last section the results.

2. Conceptual Framework

It is possible to divide foreign capital movements mainly into public and private capital movements. Public capital movements are capital movements that are formally realized among states. Private capital movements, on the other hand, are any capital movements that occur outside of the official structures of states. Private capital movements consist of portfolio investments and foreign direct investments. (Özer, 1993: 125-126). In this section, foreign direct capital and portfolio investments, which are the main subject of the study, are examined in detail. Conceptual information about the Economic Performance Index, which is another subject of the study, is also included in this section.

2.1. Direct Foreign Capital and Portfolio Investments

Foreign direct investment is the transfer of capital outside of the country, where the head office of a company is located, and carrying out production there. Companies can create a production facility from scratch in the country where they invest, as well as produce by purchasing existing production facilities.

Portfolio investments are expressed as a type of investment made by financial institutions, investors or corporate persons in the form of short-term bonds or stocks in order to make a profit (Arıkan, 2006: 7; Seyidoğlu, 2013: 629).

There are some fundamental differences between foreign direct investment and portfolio investments. Some of these are as follows: *i)* In addition to investor capital, transfers of technology and business knowledge are made in foreign direct investments. In foreign portfolio investments, there is only capital transfer. *ii)* Foreign direct investment is long-term, portfolio investments are short-term and can leave the country. *iii)* Foreign direct capital investment is made by investing in the real sector and contributing directly to the national economy. In foreign portfolio investments, an indirect contribution to the economy is made by investing in financial markets.

2.2. Economic Performance Index (EPI)

The economic performance of a country can be measured using various indices that take into account various macro variables. For example, macro variables, such as unemployment, inflation, foreign trade deficit, growth rate, capital investments, budget balance, and debt burden, can be chosen as economic performance indicators of an economy.

In the current study, Turkey's economic performance is calculated using the Economic Performance Index (EPI) proposed by Khramov and Lee (2013). The Economic Performance Index (EPI) proposed by Khramov and Lee (2013) is a fairly simple and basic index in terms of calculation. The numerical value calculated from the EPI formula is expressed as a percentage. It is interpreted that the closer the index value approaches 100%, the more the country's economic performance will increase. (Yalçın, 2021: 35). The EPI consists of four main macroeconomic variables: inflation rate, unemployment rate, the budget deficit as a percentage of total GDP and the change in real GDP;

- Inflation rate is defined as the continuous increase in the overall level of prices. A high inflation rate is an economically undesirable situation.
- The unemployment rate is the percentage of the total labor force that is unemployed but actively seeking employment in the active population. A high unemployment rate means the failure of economic policies.
- The budget deficit as a percentage of total GDP also means the budget balance or imbalance, which is the difference in the income and expenses of the public. An increase in the ratio of the budget deficit to GDP is an

unfavorable situation for the performance of the country's economy. The growth of the deficit increases borrowing (Eleren & Karagül, 2008: 4).

- The change in real GDP is the increase in the production capacity of an economy and the amount of its economic resources over a certain period of time. The increase in economic growth positively affects the economic performance of countries.

Khamrov and Lee (2013) describe two different EPIs. These are raw and weighted EPI. At the same time, they showed that raw and weighted EPIs are similar to each other in their studies. Therefore, only raw EPI is discussed in this study. The Raw EPI formula is shown as follows:

$$EPI = 100\% - |Inf(\%)| - Unem(\%) - Def / GDP(\%) + \Delta GDP$$

As can be seen from the formula, changes in the economy affect the EPI in a very simple manner. For example, 1% increases in inflation, unemployment and the budget deficit reduce the EPI score by 1 point. On the contrary, a 1% increase in growth rate increases the EPI score by 1 point (Khamrov & Lee, 2013:8).

3. Literature Review

In this study, the effect of foreign direct capital and portfolio investments on economic performance in Turkey is investigated. Examining the national and international literature reveals that the studies measuring economic performance with the EPI developed by Khamrov and Lee (2013) are quite limited. Casey (2007) measures economic performance with the variables GDP growth, per capita GDP, productivity (GDP per hour worked), inflation, employment/population ratio, unemployment and income inequality (Gini coefficient). The study by Awan and Bibi (2020) used the variables of trade openness, total population, total reserves, gross fixed capital formation, gross national expenditure, foreign direct investment, worker remittances for EPI.

Especially in the national literature, economic performance is more associated with economic growth. In this context, direct and portfolio investments focused on economic growth/development were scanned for the studies.

First of all, the impact of foreign direct capital investments on the economic growth or economic performance of the country is the subject of many studies. While there are studies in literature stating that foreign direct capital has a positive effect on economic performance (/growth) (Borensztein et al., 1998; Kula, 2003; Li & Liu (2005), Mucuk & Demirsel, 2009; Şaşmaz & Yayla, 2018),

there are also studies (Kinoshita & Lu, 2006; Ayaydin, 2010; Ünsal, 2017; Acar, 2016) showing that they have negative effects.

Mucuk and Demirel (2009) summarize in their study that the reason for the preference of foreign direct investment is its direct contribution to production capacity, its positive effects on macroeconomic variables such as general price level, employment and balance of payments. Foreign direct investments, on the other hand, can have a negative impact on the country's economy by causing technological dependence and/or creating an exclusion effect. According to Hermes and Lensink (2003), the positive effects of direct capital investments on growth are only possible in countries with developed financial markets.

Çiçen (2018) examines the Turkish economy's performance in terms of growth, foreign direct investment, inflation, unemployment, and current account deficit. It was stated that in the 2000s, in addition to portfolio investments, direct capital investments could not be attracted to the country, and after 2010, an environment of complacency was created in Turkey as a result of the abundant liquidity flowing to developing countries, and investments were transferred to sectors (construction rather than industry) where there was no productivity. In a study, Dereli (2018) determined that there was a one-way causality relationship between the years 1995-2017 in the long-term foreign direct investment in Turkey towards economic growth. According to Göcen (2017), Turkey's economic performance was better in terms of growth rates and stability from 2002 to 2007, 1990 to 1998, and 2010 to 2015, and the use of foreign resources in financing growth increased after the 2001 crisis.

There are many studies examining the relationship between foreign portfolio investments and economic growth. Portfolio investments were found to have a positive effect on growth in some of these studies (Beck et al., 2000; Vergil & Karaca, 2010; Albulescu, 2015; Ezeanyejí & Maureen, 2019). However, some studies (Klein, 2003; Kula, 2003; Feijen & Perotti, 2005; Demir, 2009; MacDonald, 2015) have found that foreign portfolio investments have a negative impact on growth.

In general, the results of the impact-response analysis performed with the residuals obtained from the models as a result of the VAR analyses for Turkey show that portfolio investments established in an emerging market economy that are more than necessary pose a risk to the country's economy (Çevik, 2019:120). This situation can be attributed to the fact that foreign portfolio investments are directed toward investment areas for speculative purposes rather than production of goods and services. As a result, the success level of the financial liberalization

policy in Turkey's economic growth remains low, and it will take time to realize the anticipated positive effect on economic growth (Yapraklı, 2020: 1325).

4. Methodology

Vector Autoregressive Models (VAR) are systems of equations in which each endogenous variable has both its own and lagged values of other variables in the system. According to Sims (1980) and Sims et al., (1990), the purpose of VAR analysis is not to determine parameter estimates, but to reveal the mutual influence between variables (Sevüktekin ve Çınar, 2014: 496).

The bivariate p-lag VAR(p) model for $t=1,2,3,\dots,T$, first proposed by Sims (1980), is defined as follows:

$$Y_{1t} = \alpha_{1t} + \sum_{i=1}^p \beta_{11} Y_{1t-i} + \sum_{i=1}^p \beta_{12} Y_{2t-i} + \varepsilon_{1t}$$

$$Y_{2t} = \alpha_{2t} + \sum_{i=1}^p \beta_{21} Y_{1t-i} + \sum_{i=1}^p \beta_{22} Y_{2t-i} + \varepsilon_{2t}$$

Y_{1t} and Y_{2t} indicate the stationary variables without unit root, ε_{1t} ve ε_{2t} indicate the error terms and p shows the degree of lag in the model.

Before performing a VAR analysis, it is necessary to determine the characteristics of the variables, such as stationarity and seasonality, particularly in models to be estimated using the least squares method, and then apply the appropriate transformations for the analysis (Güleç et al., 2018: 28).

The unit root test of the series is carried out by tests developed by Dickey and Fuller (1979) and Phillips and Perron (1988), both of which are widely used in the literature. It is preferable to interpret the impulse-response functions, variance decomposition, and Granger causality tests obtained from the system residuals rather than the parameter estimates obtained from the model when interpreting VAR analysis.

The effect response functions determine which variables experience shocks and how the variables respond to these shocks. Other series' responses are analyzed in response to Cholesky ± 2 standard deviation change in the series' shocks.

Variance decomposition is an analysis that shows what percentage of the change in a variable is due to itself and what percentage is due to other variables.

The Granger causality test is used to determine the direction of causality between the variables in the system proposed by Granger (1969). At the application stage, the series' stationarity is first investigated, and if necessary,

the stationarization process is carried out. The lag lengths are then determined. The lag lengths must be equal. The final step involves the estimation of the relationships and the F test is tested with the constrained-unconstrained approach (Tari, 2010: 439).

5. Empirical Results

5.1. Data and Descriptive Statistics

Table 1 shows the variables used in the analysis, their definitions and the sources from which the data was obtained. The sample size is 85 (n=85) and the study data covers the period 2000Q1-2021Q1.

Table 1: Variables Used in Analysis and Their Descriptions

Variable	Description	Source
FDI	Foreign Direct Investment/GDP (%)	International Financial Statistics (IFS)
FPI	Foreign Portfolio Investment: Net Liability Formation/GDP (%)	International Financial Statistics (IFS)
EPI	Economic performance index (%)	Author's calculation
-Inf	Inflation rate (%)	International Monetary Fund (IMF)
-Unemp	Unemployment rate (%)	Turkish Statistical Institute (TUIK)
-Def/GDP	Budget deficit (%)	Central bank of the Turkish Republic (TCMB)
-ΔGDP	Economic growth (%)	International Financial Statistics (IFS)

Table 2 shows the descriptive statistics of the FDI variable and the time series graph. According to the summary statistics, the FDI receives its minimum value in 2003Q3 - by 0.49%, and its maximum value in 2007Q1 - by 7%. The effects of the 2001 crisis on direct capital investments are manifested in 2003. The FDI average value is calculated as 1.57%.

Table 2: FDI time path graph and descriptive statistics

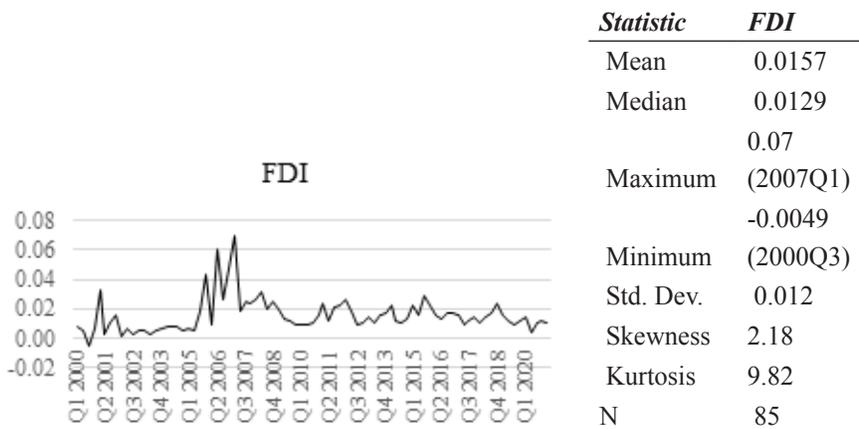


Table 3 shows the descriptive statistics of the FPI variable and the time series graph. The FPI average is calculated as 1.1%, the maximum value is 6.6%, and the minimum value is -7.2%. It is observed that the standard deviation value is higher compared to the FDI. This may mean that portfolio investments have more variability than direct investments.

Table 3: FPI time path graph and descriptive statistics

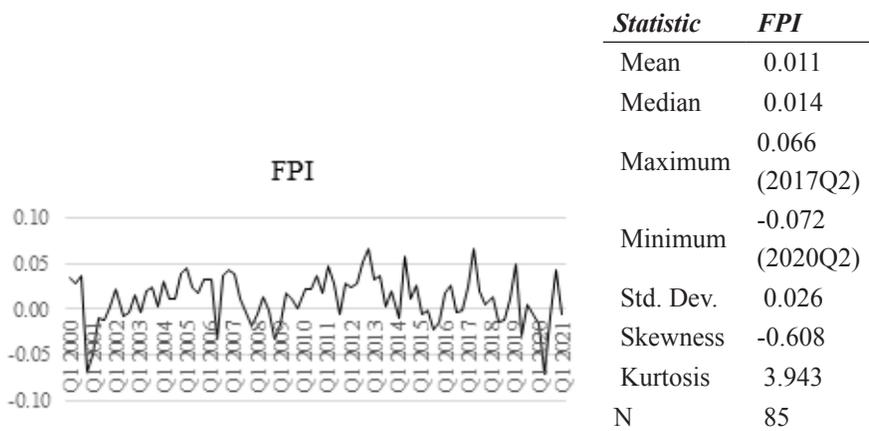
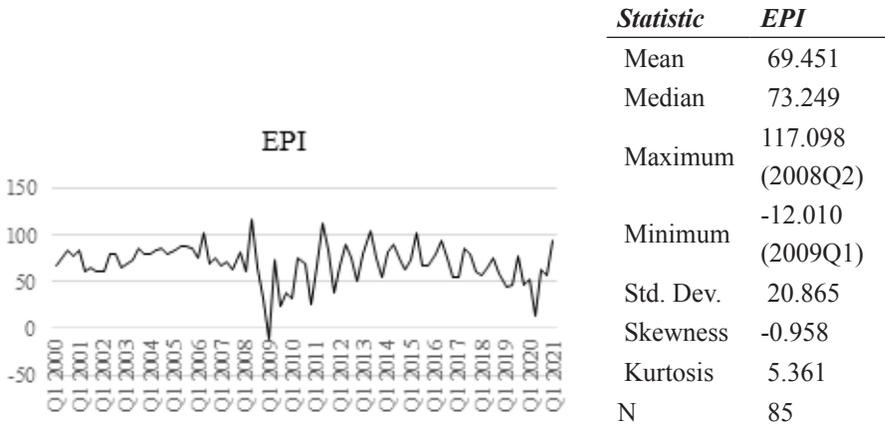


Table 4 shows the summary statistics of the EPI variable and the time series graph. The maximum value of the EPI is calculated to be 117,098% in 2008Q2 and the minimum value is calculated to be -12.01% in 2009Q1. In particular, the impact of the 2008 mortgage crisis on economic performance manifests itself in a short time. In addition, the EPI reaches its second lowest value in 2020Q2. In this process, Covid-19 shows its effect in Turkey as well as all over the world and damages the economic structure. The average EPI during the analysis

period was 69.45%, which indicates a weak level in the classification made by Khramov and Lee (2013) (Yalçın, 2022: 37).

Table 4: EPI time path graph and descriptive statistics



Before the VAR analysis, the seasonal effect is investigated in EPI, FDI and FPI series. EPI and FDI variables are seasonally observed and the analysis is continued with seasonally adjusted EPI_SA and FDI_SA variables with the help of Troma/Seats method. On the other hand, seasonality effect is not observed in the FPI variable. Table 5 shows the results of Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests whether the variables contain a unit root or not. When the time path graphs of all variables are examined, there is no trend effect, so fixed models are preferred and their stationarity is tested. According to the test results, it seems that all variables are stationary at the 5% significance level.

Table 5: Results of Unit Root Tests

	ADF	PP
FDI_SA	-3.081 [-2.897]*	-6.211 [-2,896]
FPI	-6,534 [-2,,896]	-6,534 [-2,896]
EPI_SA	-3.738 [-2,896]	-3.599 [-2,896]

*Critical values (C.V.) have been obtained from MacKinnon (1996) for %5 significant level for ADF and PP.

When the graph of the series of all variables is examined, no trend effects are observed, so fixed models are preferred in unit root research. As a result of unit

root tests, it is determined that the EPI, FDI and FPI variables are stable at the level.

Table 6: VAR Model Lag Length

Lag Length	LR	FPE	AIC	SC	HQ
0	-	1.76e-05	-2.4330	-2.341684	-2.396475
1	87,419	6.72e-06	-3.3967	-3.031496*	-3.250660*
2	20.562*	6.34e-06*	-3.4567*	-2.817535	-3,201,072
3	7.5005	7.18e-06	-3.3349	-2.421765	-2.969676
4	14,747	7.24e-06	-3.3315	-2.144477	-2.856761
5	12,905	7.47e-06	-3.3093	-1.848324	-2.724981
6	6.0168	8.62e-06	-3.1793	-1.444345	-2.485375
7	5.8081	9.97e-06	-3.0512	-1.042230	-2.247633
8	9.9652	1.07e-05	-3.0090	-0.726151	-2.095928

Table 6, in the selection of the appropriate lag for the VAR model, the Likelihood Ratio LR test statistic, Final prediction error (FPE), Akaike information criterion (AIC), Schwarz information criterion (SIC) and Hannan-Quinn information criterion (HQ) suggest the appropriate lag length as 2 according to the statistics. After determining the appropriate lag length, it is necessary to check the residual assumptions. For this, normality of residuals, equal variance and autocorrelation tests are applied. Since normality is sensitive to shocks, ¹pulse dummies that take the value of 1 in the shock period and 0 in the other periods were formed and joined to the VAR(2) model. The periods in which the dummy will be created were determined by examining each series. (Çevik, 2019: 87).

Jarque-Bera Statistic for Normality: It is calculated as 13,838 (p-value: 0.0315) and the null hypothesis is accepted at 1% significance level and it is determined that the residuals are normally distributed. In particular, since the autocorrelation problem has not disappeared in the tests conducted, the 1% significance level for the assumption of normality has been accepted for the critical value. To test the existence of equal variance, as a result of the White variance test the c^2 test statistic was obtained as 113.97 (p_value: 0.1019) and the null hypothesis stating that there is no varying variance among the residuals is accepted at 5% significance level. LM autocorrelation test results are given in Table 7. According to these results, it was concluded that the VAR(2) Model provided the necessary assumptions.

¹ Created dummies: D2005Q4 D2006Q2 D2007Q1 D2009Q1

Table 7: LM Autocorrelation Test Results

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	14.77426	9	0.0973	1.680485	(9, 163.2)	0.0974
2	9.732279	9	0.3726	1.090173	(9, 163.2)	0.3728
3	3.680255	9	0.9312	0.404784	(9, 163.2)	0.9312

It is seen in Figure 1 that the estimated VAR(2) model provides the stability condition. According to Figure 1, the inverse roots of the autoregressive characteristic polynomial are distributed in the unit circle.

Inverse Roots of AR Characteristic Polynomial

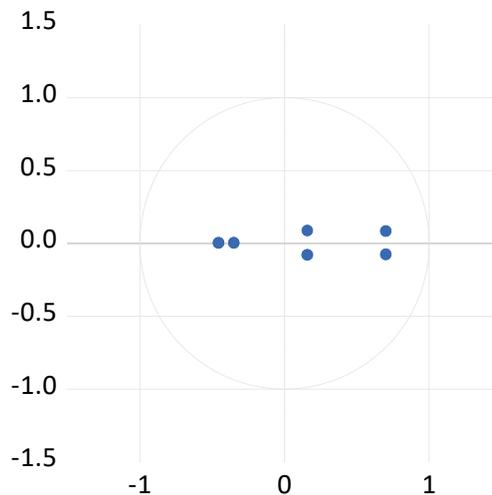


Figure 1: Stability graph of the VAR (2) model

The impulse response functions from the residuals obtained from the estimated VAR(2) model are shown in ²Figure 2. The 3-year effect and response of variables are studied in the function, so horizontal length was chosen as 12 periods.

² The impulse-response functions reflect the effect of a shock of Cholesky ± 2 standard deviation in one of the random error terms on the present and future values of the endogenous variables. The dashed lines on the impulse response plots show the confidence intervals of two standard deviations, and the solid lines the point estimates.

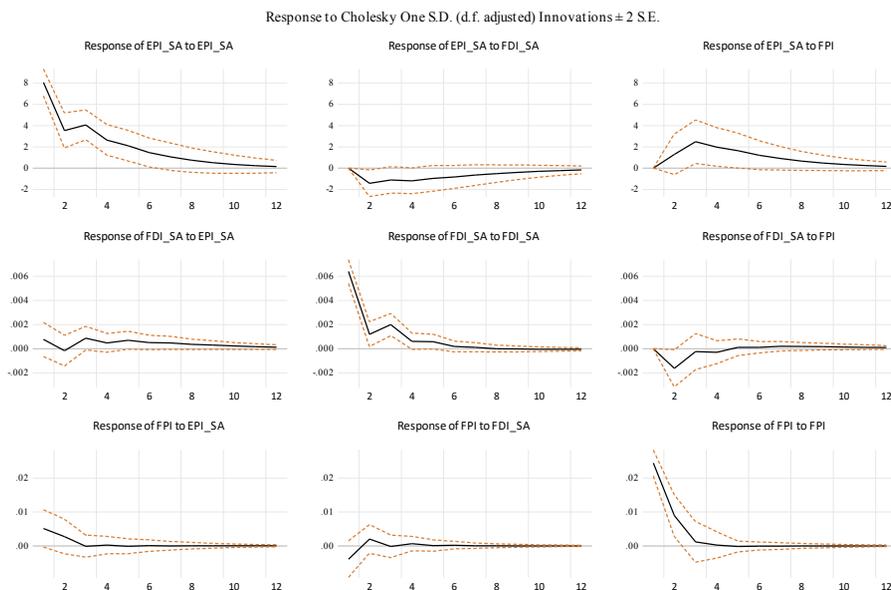


Figure 2. Impulse-Response Analysis Results

In all of the graphs given in Figure 2, it is seen that the effects of the impulse response functions disappear over time³. When the impulse response functions of the variables subject to the analysis are examined, the response of EPI_SA to the 1 standard deviation shock in FDI_SA is negative and gives the greatest response after 2 periods. EPI responds positively to shocks in FPI. It gives this reaction at the highest level in the 3rd period. It is still positive even if the response magnitude decreases. FDI_SA reacts positively in the 1st period and negatively in the 2nd period to the 1 standard deviation shock in EPI_SA. It continues to give a positive response after the third period. While FPI's response to shocks in EPI_SA is positive until the 3rd period, the magnitude of the response then diminishes.

Figure 3 shows the results of Variance Decomposition. Accordingly, while 100% of EPI_SA is disclosed by itself in the 1st period, 4.78% of it is disclosed by FDI_SA and 12.31% by FPI in the 6th period. In the 12th period, 81.5% is disclosed by itself, 5.32% is disclosed by FDI_SA and 13.18% is disclosed by FPI. Likewise, for FDI_SA in the 1st period, 1.43% is disclosed by EPI_SA and 98.57% is explained by itself. In period 6, 4.54% of FDI_SA is disclosed by EPI_SA, 90.09% by itself and 5.37% by FPI. In the 12th period, 5.54% of FDI_SA is disclosed by EPI_SA and 5.58% by FPI. In the 1st period, 93.51% of

³ This situation also shows that the VAR model is stable and all variables are stationary, and there is no autocorrelation problem (Ağır & Rutbil, 2019: 295).

FPI is disclosed by itself, while 2.35% is explained by FDI_SA and 4.13% by EPI_SA. There is no change in the disclosure rates for the 6th and 12th periods, and 4.65% are disclosed by EPI_SA and 2.69% by FDI_SA, respectively.

According to the results of variance analysis, it can be said that portfolio investments stimulate economic performance in Turkey.

Variance Decomposition using Cholesky (d.f. adjusted) Factors

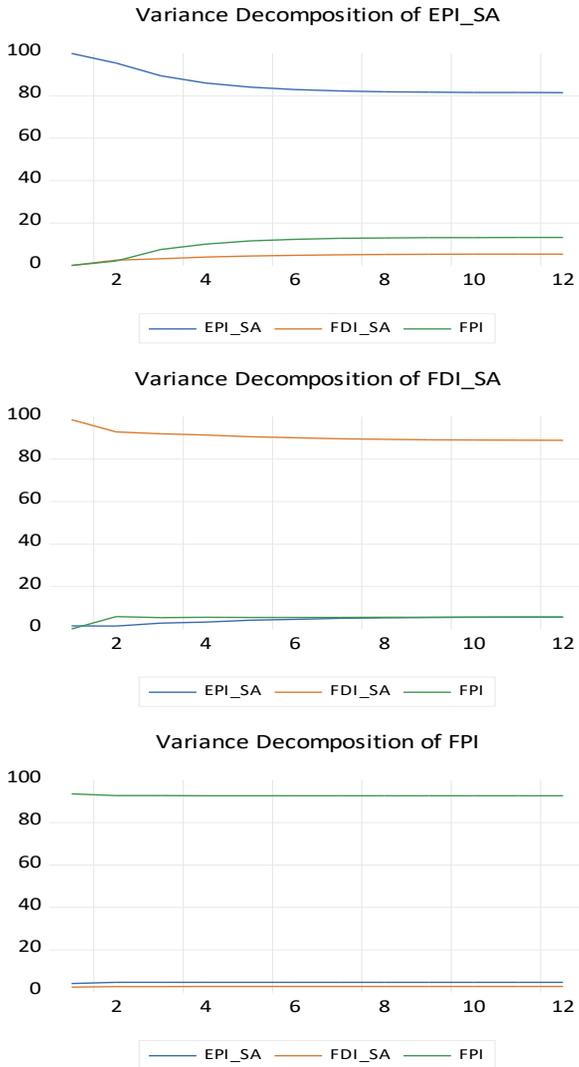


Figure 3: Variance Decomposition Results

Another situation to be investigated within the scope of the study is to determine the causality relationship between the related variables. In this context, Granger causality test results are given in Table 8.

Table 8: Granger Causality Test Results

Aspect of Causality	χ^2 Test Statistic
FDI_SA→EPI_SA	6.31 [0.042]*
FPI→EPI_SA	4.89 [0.086]**

* Indicates significance at the 5%, **10% level.

According to Table 8 results, both FDI_SA and FPI are the Granger cause of EPI_SA.

6. Conclusion

The aim of the study is to investigate the impact of foreign direct capital investments and portfolio investments on economic performance in Turkey in the period 2000Q1-2021Q1. In this context, it was started with the hypothesis that portfolio investments are more effective in Turkey. When the 3-year period is examined together with the findings, it can be stated that the percentage of economic performance of portfolio investments is approximately 3 times compared to direct investments. Accordingly, both types of investments affect economic performance, but portfolio investments stimulate economic performance in Turkey at a higher rate compared to foreign direct capital investments. This finding is similar to some of the other studies in the literature (Borensztein et al., 1998; Kula, 2003; Li & Liu (2005), Mucuk & Demirsel, 2009; Şaşmaz & Yayla, 2018). However, it should not be forgotten that these effects may cause structural problems. As a matter of fact, considering that portfolio investments have a short-term and fragile structure, it is also possible to determine that the development of economic performance indicators has changed in Turkey over the past 20 years due to a fragile structure. It should also be noted that foreign investments magnify permanent and structural problems such as technological dependence, exclusion effect and current account deficit (Mucuk & Demirsel, 2009; Çiçen, 2018; Çevik, 2019).

Another aim of the study is to reveal the components with which the economic performance index can be developed. As a result of Granger causality analysis, when the components of the economic performance index are examined, it is determined that both portfolio and foreign direct capital investments can contribute to the economic performance index. In this context, in future studies, the economic performance index can be developed to include the relevant variables.

According to the findings obtained in the study, it is observed that foreign portfolio investments have become an important source of financing, especially

in Turkey. However, it should be noted that portfolio investments have a short-term and fragile structure. Therefore, in order to increase the impact of foreign direct capital investments, it is necessary to prepare an appropriate and supportive investment environment. The most important issue to be considered for direct capital investments is the balance of the privatization policy.

The effect of foreign direct investment and portfolio investments on economic performance in Turkey from 2000Q1 to 2021Q1 and the components with which the economic performance index can be developed were investigated using VAR analysis and the Granger causality test in the study. At this point, there are country, year and method restrictions in the research. It should be taken into account that the results obtained for different countries, for different years and by different methods may be different. In the future, researchers interested in the subject may conduct similar analyses for the OECD, European Union countries, and BRICS countries, as well as investigate the effects of issues such as the distribution of employment rates and the sectoral distribution of new investments on the economic performance index.

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CHAPTER V

AN ASSESSMENT ON THE BENEFITS AND COSTS OF TAX AMNESTIES

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1. Introduction

Tax is defined as the compulsory financial contributions made to the state treasury to meet the public expenditures of the citizens according to their financial strength. However, taxes do not only have a fiscal purpose, they also serve as a social and economic policy tool by serving to stimulate and direct economic activities. (Öner, 2020)

However, individuals generally do not like to pay taxes (this exact and unrequited economic value) and resort to various ways to reduce their tax debts. Some of these ways are legal, while others are not. Legal methods used by individuals to take advantage of tax laws; It is known as tax deferral, tax arbitrage, distribution of income and avoidance of some taxes. Tax evasion, which consists of illegal behaviors, is the method that taxpayers resort to to reduce their legal liabilities due to their tax burden. Individuals and companies perform tax evasion by underestimating their income, sales and wealth or by exaggerating their expenses. For these reasons, governments resort to various ways to ensure tax compliance with tax laws. (Alm, 1999, p. 1)

Undoubtedly, the most important source of financing for the state to finance public expenditures and at the same time provide better service to its citizens is taxes. However, the effective and efficient use of this financing resource by the state depends on the regular payment of taxes by the taxpayers and the regular collection of taxes from the taxpayers. These attitudes in terms of tax compliance cause taxpayers to develop behaviors that are sometimes within the legal limits (tax avoidance) and sometimes outside the legal limits (tax evasion).

For this reason, taxpayers' avoidance of paying taxes so that their income does not decrease, causes the informal economy, reduces tax compliance and causes a decrease in government revenue. (Yelman, 2017, p. 68) Therefore, tax evasion is an important problem for states. Every year, states suffer huge potential revenue losses as many citizens somehow avoid paying taxes. (Uchitelle, 1989, p. 48)

In this context, governments resort to different ways to increase tax compliance of taxpayers and to bring unregistered incomes into the economy. One of the most important ways to apply is tax amnesty, which has become more popular in recent years and has almost turned into an institution. (Yelman, 2017, p. 68) Tax amnesty is applied in the vast majority of countries around the world. The country that does not apply is almost non-existent. In some countries, the tax amnesty program is presented as a voluntary compliance program, while in others it comes to the fore with names such as accelerating collection, tax peace, structuring. Some countries have permanent amnesty programs, while others have time limits. Each country, in accordance with its own economic, political, legal structure, financial, political, administrative, social and so on. apply to amnesty programs for reasons. In general, it is seen that tax amnesties are issued in all countries of the world during the recession periods of their economies. (Yayman, 2020, p. 312)

Tax amnesties are the main subject of our study. In this context, general information about tax amnesties will be given, the benefits and costs of tax amnesties will be examined, and evaluations will be made by specifying the requirements of an effective tax amnesty policy.

2. Tax Amnesty Concept

The most important source of income that states apply to meet public services is taxes. Taxes are the economic values that the state receives from the individuals and institutions that make up the society in order to finance public expenditures, according to their financial power, free of charge and based on their sovereign power. The most important issue in taxation is undoubtedly the unconditional and certainty of the tax. What is meant by the concept of unconditional here is that no individual and direct response is expected. People don't want to pay for something that does directly unconditional. This situation constitutes the main source of tax-related disputes. (Ayrangöl and Tekdere, 2013, p. 250)

States should reduce tax evasion, increase supervision and register the informal economy in order to have a solid source of finance. However, states often resort to tax amnesty applications because they do not do these at a sufficient level. Whether or not to issue an amnesty or to determine the scope of the amnesty is, first of all, a political decision. (Ayrangöl and Tekdere, 2013, p. 251)

Tax amnesty, in the most general terms, is the renunciation of to some monetary claim of the state. (Akin, 2021) The concept of tax amnesty is defined as the state's renunciation of the collection of taxes, duties and fees from individuals for the financing of public services by using its sovereign authority, and the sanctions imposed due to failure to fulfill or incomplete fulfillment of the taxation duty. (Edizdoğan and Gümüş, 2013, p. 99-100) In other words, tax amnesty is an application that provides the opportunity to pay taxes with a discount or by waiving interest and penalties, and gives taxpayers the opportunity to open a clean slate. (Cekindo, 2020) The state renounces its right to monetary claim with a law to be enacted. (Ayrangöl and Tekdere, 2013, p. 249)

Tax amnesties are an important tool that enables taxpayers to recuperate, clear their past and reconcile with the state in terms of taxes. (Edizdoğan and Gümüş, 2013, p. 100) The income that should be obtained with tax amnesties is transferred to the treasury quickly. With tax amnesties, legal and administrative sanctions applied to taxpayers who do not act in accordance with the law are eliminated. (Ayrangöl and Tekdere, 2013, p. 249)

3. Reasons for Tax Amnesty Applications

Tax amnesty is given to taxpayers and companies for a partial time. Tax amnesty aims to benefit both taxpayers and the government. On the one hand, taxpayers will not be penalized for taxes, a large part of which has not been paid, on the other hand, the state will have earned income from unpaid taxes. In addition, taxpayers will pay unpaid taxes and will continue to pay taxes regularly in the future. This is essentially what is expected from the essence of tax amnesty. (Cekindo, 2020) Therefore, tax amnesty policies are inherent in each country's socio-economic tax context. (González, 2021)

Tax amnesties are frequently encountered in all developed and developing economies such as the European Union and OECD member countries, especially after the 2000s. With tax amnesties, countries both create resources and give their taxpayers the opportunity to open a white page. For example, in Italy, Spain, the USA and in Germany, where tax awareness is intense, it is seen that tax amnesty laws have come into force. (KPMG, 2016)

It is also seen that tax amnesties are applied repeatedly over time, regardless of the degree of economic development. E.g; Belgium (1984), Australia, Austria (1982 and 1993), Finland (1982 and 1984), Greece, Ireland (1988 and 1993), France (1982 and 1986), Portugal (1981, 1982, 1986 and 1988), Italy (1982, 1984 and 2002), Spain (1977), New Zealand (1988) and Switzerland are the developed countries that have implemented amnesty. Tax amnesty policies are

implemented in developing countries such as Colombia (1987), Chile, Argentina (1987 and 1995), Bolivia, Ecuador, Panama (1974), India, Philippines, Mexico, Peru, Turkey and the Russian Federation (1993, 1996 and 1997). In the United States, on the other hand, 78 tax amnesty programs were offered until 2004. Almost all states have offered these programs (42 out of 50). Most states have granted more than one amnesty during this period (e.g. Louisiana four, Connecticut, Massachusetts, Arizona, Florida, New Jersey, Missouri, and New York three). (Yayman, 2020, p. 321)

The validity period of these applied tax amnesty policies, the appropriate tax types for amnesty and the types of penalties forgiven vary from country to country. However, the tax amnesty policy has a common feature for all countries in that it prevents the faulty taxpayers from being exposed to the penalties normally associated with tax delinquency. (Uchitelle, 1989, p. 48) Different types of tax amnesty policies are indicated below; (González, 2021)

- *Full Tax Amnesty*: Taxpayers' tax debts are forgiven. This type of amnesty aims to generate income quickly in the face of economic disruptions such as supporting investments, returning goods from abroad, solving exceptional expenses, balancing the budget. This arrangement is considered successful when the tax base grows and the investments made are significant.
- *Semi-Full Tax Amnesty*: There is tax amnesty, but there is an obligation to pay the regular tax. The main purpose of this type of tax amnesty is to increase the tax base, improve collection and normalize tax liabilities in the coming fiscal years. Advocates of this type claim that the cost of tax amnesty balances each other with its cost, thanks to the significant future income it brings.
- *Restricted Tax Amnesty*: Tax amnesty is limited to this type. Taxpayers are exempt from penalties, interest and additional fees.

Countries generally apply tax amnesty to generate income from two main sources. The primary source is the large amount of income that cannot be reported in the domestic economy as it circulates in the underground economy. Tax amnesties are designed not only to increase current tax revenues, but also to permanently reduce the amount of economic activity occurring in the underground economy, thereby increasing future tax revenues. The second source of potential income is escaping capital. Countries use tax amnesties as an incentive to repatriate money whose citizens are often very large and illegally transferred abroad. A significant amount of potential tax revenue is lost each year, particularly in

underdeveloped countries, due to escaping capital. (Uchitelle, 1989, p. 48) For this reason, comprehensive tax amnesty applications are needed after political, economic and financial crises. (Edizdoğan and Gümüş, 2013, p. 102) Among the reasons for tax amnesty laws, economic, political, taxational and natural reasons come to the fore; (González, 2021)

- *Natural Causes:* A tax amnesty policy is implemented for economic compensation for the damages caused and to avoid sanctions on the affected social sector. Again, during the COVID-19 pandemic, which is described as a natural cause, tax amnesties appear as a precaution measure in terms of creating short-term resource needs in countries.
- *Political Reasons:* Tax amnesty policy is implemented for the restoration of social order and national peace. The fact that taxes are of interest to a wide range of people and that financial amnesties attract a large number of people in a positive way cause political preferences to be used frequently for amnesty. (Bıyık, 2010) Tax amnesties are also used as a means of liquidating the financial transactions of the former administration in case of a change in power. (Edizdoğan and Gümüş, 2013, p. 103)
- *Economic Reasons:* Restoring the economic order may necessitate the tax amnesty policy. Tax amnesty can be applied within the framework of collecting uncollectible receivables, closing budget deficits and restructuring tax debts. (Yayman, 2020, p. 315) Tax amnesties are an easy and efficient method of generating public revenue. Voluntary compliance is achieved at a higher level in amnesty programs, and a significant tax income is easily achieved in a short time. (Bıyık, 2010) For this reason, tax amnesty is seen as an important tool in ensuring the economic order.
- *Tax Reasons:* Tax amnesty policy is applied for the sudden increase in income sources, to increase the tax base, to improve the collection that is sustained over time, and to normalize the tax liabilities.

Tax amnesties are sometimes applied when there is a change of government or large currency devaluations. In such cases, the tax burden is generally seen as excessive and a weak relationship is established in terms of solvency. The new power can implement an amnesty policy to reduce tax debt, resolve tax violations from past years, and address non-compliance issues. States can apply tax amnesties in response to requests for forgiveness from certain interest groups that owe taxes. Tax amnesty can also be issued in order to overcome political crises, overcome extraordinary periods and gain votes. Again, the excessive

workload of tax units and the lack of deterrent effect of tax penalties can be stated as other reasons for tax amnesty. (Yayman, 2020, p. 315-316)

It may also necessitate a tax amnesty during economic crises. Economic crises weaken the financial structure of businesses, and in parallel, they can make the tax debts of businesses that have difficulty in paying unpayable. This often forces amnesty or similar practices. Again, serious changes in tax laws may bring about an amnesty arrangement within the framework of the aim of making a healthy start after the amendment. Again, the high rates of the informal economy and tax evasion, the lack of a safe legal environment for taxpayers who act in accordance with the law, and the high tax disputes may cause tax amnesties. (Bıyık, 2010)

However, tax amnesties can also be issued in order to serve a recovery process after periods of great economic depression, natural disasters, wars, epidemics (such as Covid-19), which shook the economy, people lost their income and wealth significantly. Sometimes in this way, it is aimed to ensure tax justice and fulfill the requirements of the social state principle. Moreover, it is stated in the doctrine that besides the known drawbacks of tax amnesties, there are also justified reasons that make amnesty necessary. In this context, economic and political reasons take the first place. It is advocated that tax amnesties can be beneficial in cases where a significant part of the public believes that it will benefit the country in general after the major economic crises. Of course, the urgent revenue collection needs of the countries and the need to reduce the administrative costs of taxation also justify the amnesties. However, tax amnesties should not create injustice between taxpayers who are honest and fully declare and pay their taxes, who are meticulous to fulfill their tax duties correctly, and taxpayers who have a habit of evading tax. Repeated amnesties should not reward dishonest taxpayers and encourage them to behave in the same way. In short, an effective tax amnesty depends on a healthy tax system. (Öner, 2020) The lack of a healthy tax system continues to exist as one of the most important reasons for amnesties. (Bıyık, 2010)

Undoubtedly, the general purpose of tax amnesties is to generate income quickly, and tax amnesties generally meet this purpose. States apply to the tax amnesty program to balance the budget deficit or to close the deficit in some expenditures. (Luzer, 2013) For this reason, tax amnesties are one of the leading sources used as an economic tool in almost all countries in recent years. This resource can give some useful results according to the internal dynamics of the countries, as well as some costly results. Benefits and costs of tax amnesties are examined under separate headings below. (Ayrangöl and Tekdere, 2013, p. 250).

4. Benefits and Costs of Tax Amnesty Applications

Tax amnesties have costs as well as benefits. For this reason, tax amnesty practices generally cause long-term discussions in states. Benefits and costs of tax amnesty applications are examined under separate headings below.

4.1. Benefits of Tax Amnesties

Tax amnesty programs have beneficial aspects. The most important benefit of tax amnesty is that it provides easy and fast income to the states. Some states are able to generate substantial tax revenues that help reduce the treasury's borrowing requirements. (Uchitelle, 1989, p. 49) The generally beneficial aspects of tax amnesties are listed below; (Cekindo, 2020)

- *Tax amnesties encourage taxpayers to do business fairly and legally:* They ensure that taxpayers comply with tax regulations. Taxpayers realize that tax evasion has serious consequences, including high interest and penalties.
- *Tax amnesty will establish a good record for taxpayers:* The Automatic Data Exchange System will allow data to be viewed by government departments. The debts of the taxpayers or the tax regulations that are violated will be seen in the system.
- *Tax amnesty will be advantageous for taxpayers who want to expand their business:* It is often difficult for foreign companies to purchase property without a legal tax registration, especially. Therefore, using tax amnesty as an opportunity and voluntarily complying with tax regulations can be seen as a good strategy for the taxpayer's long-term business plans.
- *There is no need to pay interest due to the unpaid tax:* This situation removes the burden on the taxpayer for a fairer competition in the market.
- *Taxpayers do not face any legal problems or conflicts with tax amnesty:* Tax amnesty can stop all investigation processes carried to the litigation stage.

Another benefit of amnesty policies is to improve future tax collections by increasing the tax base. States are implementing amnesty policies, hoping to both broaden the base of registered taxpayers and increase the amount of economic action reported. A well-organized tax amnesty program can ensure that amnesty beneficiaries are not only added to the taxpayer list but also carefully monitored in the future. Therefore, amnesties may reduce the need for tax increases in the future due to the widening tax base. Taxpayers who act fairly will also be able to benefit from tax amnesties, since those who do not pay are involved in this process. (Uchitelle, 1989, p. 49)

On the other hand, it is also stated that tax amnesties increase compliance through a “regret” channel that underestimates the “guilt” cost of some citizens. Participating in a tax amnesty provides the tax office with better information about the person’s actual income, thus reducing an individual’s probability of future tax evasion. However, political economic situations may require a tax amnesty. Tax amnesties facilitate political transition in practices such as harsh penalties, tax evasion and corruption. (Baer and Borgne, 2008, p. 14-15) As a result, tax amnesties are generally not on the basis of the program, but as a result of political factors. (Uchitelle, 1989, p. 50)

Another advantage of tax amnesties is that they can facilitate the transition to a new tax enforcement regime. A state wishing to strengthen its tax collection mechanism can implement this strengthened sanction in conjunction with a tax amnesty program. Thus, it will be possible for taxpayers to take steps without any prejudice before the new collection system works (Uchitelle, 1989, p. 49). Therefore, a tax amnesty, when combined with advanced enforcement technology, is important in helping to accelerate the transition to a new steady state. (Baer and Borgne, 2008, p. 15)

4.2. Costs of Tax Amnesties

The benefits of tax amnesty programs must be weighed against a range of potential costs. Tax programs can have undesirable effects if they are implemented frequently. Taxpayers can expect periodic tax amnesty from the state. These expectations may reduce the incentive to pay routine taxes and eventually increase the rate of tax evaders. In the long run, this has serious financial consequences for governments. (Uchitelle, 1989, p. 49) On the other hand, tax amnesty can increase the collection of past debts, but it is a fact that it will create negative consequences for tax compliance. (Castro and Scartascini, 2019) With the tax amnesty program, tax evaders is rewarded by paying taxes at a lower tax rate than law-abiding taxpayers. This situation negatively affects tax compliance. (Baer and Borgne, 2008, p. 57)

According to a study, even the discussion of an upcoming tax amnesty program is a deterrent for taxpayers to fulfill their obligations. The occasional application of a tax amnesty clears some accounts. However, a tax amnesty program that is frequently implemented creates a deterrent effect on taxpayers who pay their taxes regularly. (Luzer, 2013) As a matter of fact, the long duration of tax inspections and tax cases, the low tax inspection rates encourage staying out of taxation, and the expectation of amnesty constantly encourages these behaviors. (Öner, 2020)

Yet another study emerged in the context of a 2017 amnesty for property taxes by the city of Santa Fe in Argentina. According to the study in question, tax amnesties pose a danger to tax morale. Indeed, taxpayers' attitudes may change as it becomes clear that penalties for not paying taxes can eventually be forgiven or reduced. In a sense, tax amnesty encourages at least some people to ignore their tax obligations and potentially negatively impacts tax compliance in the medium and long term, resulting in lower tax revenues. (Scartascini, 2019) In this sense, the more frequently a tax amnesty is announced, the less income will be brought by each tax amnesty. (Luzer, 2013) Therefore, opponents of tax amnesty argue that any amnesty is unproductive, protecting the non-compliant and demoralizing the compliant by undermining tax morale. (González, 2021)

Accordingly, tax amnesties have the effect of penalizing taxpayers who act fairly. Some tax amnesties can provide a good return on wealth for tax evaders compared to those who pay their taxes regularly. Most amnesties, however, simply reward erroneous taxpayers by exempting them from penalties for unpaid taxes. Another negative effect of tax amnesty is that it can be interpreted as a sign of the government's failure to enforce tax laws. After all, a tax amnesty has the potential to reduce the credibility of the government applying the amnesty. (Uchitelle, 1989, p. 49) The effects of tax amnesties on costs in general are listed below; (Cekindo, 2020; Baer and Borgne, 2008, p. 14-15)

- *Taxpayers may deliberately commit tax evasion in the hope of getting another tax amnesty:* This is seen as one of the biggest fears arising from tax amnesty. Some taxpayers who do not act fairly may use the tax amnesty as an opportunity to make more profits by avoiding taxes. This undesirable action is based on the idea that there will be another tax amnesty in the future, so taxpayers who don't act fairly tend to ignore their chances of getting that amnesty. However, the limited tax amnesty periods indicate that the state is both concerned about this issue and that heavy penalties will await those who do not comply with the taxation rules.
- *Companies that have assets or money in foreign countries can eventually bring their assets or money back to their home country:* This will require other countries to consider their tax amnesty policy and efforts to keep investments in their home countries. Often when this happens, business people have to choose between joining the tax amnesty program or accepting offers from the countries in which they invested their money.
- *If the government does not provide business people with privacy in terms of tax amnesty policy, business people may think that tax amnesty policy*

will be a problem in the future: Security is one of the biggest challenges for business people. If the government cannot guarantee the safety of the program, many business people may hesitate to voluntarily participate in the tax amnesty.

- *Citizens may think that there may be higher auditing in the future:* Taxpayers think that if they apply for a tax amnesty, they reveal themselves as a tax evader. This situation causes taxpayers to be subject to frequent audits. Even if a taxpayer complies fully with the law, audits are costly. For this reason, the increase in the audit possibilities of tax amnesties can reduce the participation in tax amnesties.
- *Participation in tax amnesty may be low:* Participating in an amnesty policy means that the tax administration has information about a taxpayer's actual income. This will reduce the tax evasion action of taxpayers in the future. Accordingly, some taxpayers may choose not to participate in an amnesty policy in order to protect their tax evasion in the future.
- *Loss of reputation:* Making a public statement that a taxpayer has evaded tax in the past will damage that taxpayer's reputation. In some cases, this damage may be more than the damage caused by the act of tax evasion.
- *Fair taxpayers may feel that the tax amnesty is injustice to them:* This can reduce the overall tax compliance of taxpayers by acting fairly.
- *Weak detection capacity of the tax administration may be revealed:* The state structure (potential for strong/weak tax practices, strong/weak tax administration structure etc.) is easily learned by the public. Even a single amnesty can immediately reveal the government structure. Therefore, the expectation of tax amnesty of citizens who understand the type of government can increase and the probability of being detected can decrease. This will reduce tax compliance.

Tax amnesties cause other costs besides the above-mentioned costs. For example, managing the amnesty program creates additional work. The collections to be obtained from the cases pending a judicial decision in the tax courts and from the taxpayers whose crimes are detected are deducted due to tax amnesty. This deduction creates a loss of income for the treasury on the one hand, and harms the tax administration in terms of waste of time and resources on the other. (Baer and Borgne, 2008, p. 56-57)

On the other hand, it is stated in the doctrine that a tax amnesty has no direct effect on increasing tax compliance. Tax amnesties essentially offer

citizens an incentive to uncover past tax evasion and to stay current on their tax payments. However, a tax amnesty policy does not directly affect the cost-benefit of tax evasion. As a result, the tax law has not changed, the sanction of the tax administration has not changed. For citizens whose benefits outweigh the costs of tax evasion, a tax amnesty has no direct impact on the cost-benefit balance. Therefore, these people will continue to avoid taxes. An amnesty, by itself, can only affect tax compliance through behavioral channels, but the net effect of even this is uncertain. (Baer and Borgne, 2008, p. 13)

As a result, tax amnesties provide an unexpected gain in income, especially in the short term, causing states to ignore their structural problems in the economy. Faced with such a contingency, a state is less inclined to reexamine the burdensome regulations and weak economic policies that are often the root causes of tax evasion. (Uchitelle, 1989, p. 50) Meeting such problems, which should be addressed in the long-term, with the urgent income increase provided by the tax amnesty program in the short term, is insufficient to eliminate the imbalances in the economic structures of the states. In order for states to improve their economic structure in the long or medium term, a serious effort must be made in the long term. In this sense, the tax amnesty program, which is implemented to find short-term solutions to long-term problems, appears as a political idea. Moreover, it should come as no surprise that the short-term thinking of tax amnesty programs often predominates among government administrations defined by four-year or five-year political cycles. (Luzer, 2013)

If states focused on correcting these structural deficiencies, they would be able to encourage more activity in the legal economy, thereby increasing the overall tax base. Thus, developing countries in particular are likely to gain little by applying tax amnesties until they improve their overall tax collection systems. Again, the fact that developing countries have already issued several tax amnesties has reduced their chances of implementing truly successful programs in the future. However, if a well-designed tax amnesty program had been enacted with structural tax reforms, beneficial results would have emerged for both developed and developing countries. (Uchitelle, 1989, p. 53)

5. Requirements For A Successful Tax Amnesty

The distorting effects of tax amnesty practices on tax compliance and tax morale are indisputable. Making tax amnesties a permanent component of the tax system creates a corrupt, unreliable, unfair and inefficient tax system in the long run, despite the financial and administrative benefits it will create in a short time. As

a matter of fact, continuous tax amnesties remove the deterrent of tax penalties and tax audits. (Öner, 2020)

Studies indicate that frequent implementation of tax amnesty policies reduces success. If citizens of a country expect more than one amnesty, the incentives offered in that country to report or report a tax offense are insufficient. In fact, tax amnesty expectations are in itself an incentive for non-payment of current taxes. Repeated tax amnesties not only remove the incentive to report arrears, but also increase the frequency of tax evasion. (Uchitelle, 1989, p. 50) As a matter of fact, it is stated in the doctrine that there is a decrease in those who have paid their taxes regularly in the tax period immediately after the tax amnesty. (Scartascini, 2019)

In addition, each amnesty means that tax payments are received earlier than they would normally be. The important question, however, is to what extent amnesties increase revenue over a long-term time frame. The general conclusion of research on this subject is that amnesties are unlikely to generate additional income, given their long-term effects, except in very unusual circumstances. Indeed, the risks inherent in issuing amnesty where voluntary tax compliance is good are quite large, as future amnesty prospects incur costs that far outweigh a temporary income stream and can erode future tax compliance. In this case, the potential long-term harm that an amnesty can cause is clearly recognized. (Stella, 1989, p. 2)

It is clear that repeated independent tax amnesties can erode the gross income collected from each successive amnesty and adversely affect overall tax compliance. If a tax administration's weaknesses are not addressed as part of a tax amnesty program, the use of amnesty as a regular means of collecting revenue can have serious consequences for both the future compliance and long-term effectiveness of the tax administration. This causes repeated amnesties to reduce revenues over time or to a relatively non-dynamic tax revenue. In such cases, the statements of the authorities that every amnesty will be the "last amnesty" is not credible. (Baer and Borgne, 2008, p. 56)

It is argued that if an amnesty means more amnesty in the future—which is almost certain—it could result in a loss of net income in the medium-term. (Stella, 1989, p. 23) Studies show that most tax amnesties are unsuccessful because countries that implement tax amnesties do not have the means or willingness to implement tax collection after the amnesty. Amnesties often lead to one-time revenue gains, but not lasting effects.⁵³ If amnesties speed up the repayment of taxes, states would have the advantage of collecting their taxes sooner. This is a benefit that even governments making structural changes cannot reap. (Uchitelle, 1989, p. 53)

Again, according to a study examining tax amnesties published in countries such as Ireland, Argentina, Colombia and France, it has been seen that tax amnesty policies have had various successes. However, most of the programs did not lead to broadening of the overall tax base, and many failed to generate even huge one-time revenue gains. (Uchitelle, 1989, p. 53) As a result, repetitive tax amnesties are not successful in increasing tax revenue and tax compliance in the long run. Most amnesties are implemented independently of structural changes or fundamental improvements.

On the other hand, tax amnesties were often seen as a logical policy, as they were seen as politically popular ways to generate an increase in government revenues. It is generally seen as correct to impose a reduced penalty on people who voluntarily disclose their tax avoidance with the tax amnesty policy. This leads to the conclusion that it is less likely to generate significant income, as it reduces future tax compliance in the long run. (Stella, 1989, p. 1)

Again, the effectiveness of a tax amnesty program can also be affected by the type of government in power or likely to seize power. For example, citizens may avoid participating in the amnesty program if they feel that the current or elected government will not comply with the amnesty or will take economic measures that greatly reduce the value of the newly reported income. Moreover, it has been observed that tax amnesty policies implemented in some countries in the past years (e.g. France-1986, Belgium-1985) were rejected because they were believed to be only for the benefit of the rich. (Uchitelle, 1989, p. 50)

However, after certain periods of crisis, it may be beneficial to implement a consistent tax amnesty, provided that the support and approval of the whole society is obtained for the recovery of the economy, the implementation of tax justice and the principle of social state. (Öner, 2020) The program is likely to be effective if taxpayers see tax amnesty as an important opportunity to recoup past crimes. Most importantly, the effectiveness of an amnesty program is likely to increase markedly if existing enforcement mechanisms are strengthened. (Uchitelle, 1989, p. 49)

Evidence to date indicates that success in tax amnesties requires adjustments in other areas of the tax system. (Uchitelle, 1989, p. 49) For an effective tax system, first of all, taxpayers in the country must have confidence in the tax system as a whole. This trust is possible if the tax system has a fair, predictable and inclusive structure. Legality is the most basic principle of modern tax systems. A tax system that is constantly changing, containing audit weaknesses, unlawful and arbitrary administrative practices, taxpayers are crushed under high taxes, and informality cannot be prevented, does not establish trust. In such

a tax system, tax morale also erodes over time, causing wealth and economic activities to be smuggled out of the tax system. (Öner, 2020)

Therefore, it is important to have a tax system that does not harm the right to property with simplification in tax legislation, basing the declaration on the basis of trust, deterrent tax penalties and more reasonable tax rates. In this sense, tax amnesties should be transformed into a social policy tool that is used exceptionally in extraordinary situations, rather than a tool used to break the spiral of uncollected taxes and unresolved conflicts. (Öner, 2020)

Before implementing a tax amnesty, states should introduce various forms of (time-limited) installment payments (with strict terms of eligibility) and establish a permanent program that deliberately exposes tax evaders. In the medium and long term, it should focus on strengthening the legal framework for basic tax administration procedures, which will significantly increase the cost of tax evasion. Simplifying the tax system with tax policy, broadening the tax base and lowering tax rates, can significantly reduce the gains from tax evasion. The combination of these effects will structurally and significantly reduce the equilibrium level of tax evasion. It will also do this more fairly for law-abiding taxpayers and more cost-effectively for the government. (Baer and Borgne, 2008, p. 57-58)

On the other hand, amnesties have proven to be more successful when they are part of an overall package of tax changes, as tax evasion is often the result of high tax rates and weak economic policies. For example, Colombia lowered its tax rates when it announced its tax amnesty, while the Philippines increased the allowable exemptions. In the long run, however, the success of tax amnesties depends heavily on the government's willingness to undertake structural changes. The experience of countries that have implemented tax amnesties to date shows that an amnesty can lead to revenue gains, but the country needs to address more fundamental problems of the economy that may have encouraged tax evasion in the first place. (Uchitelle, 1989, p. 50)

In the case of programs that combine tax relief with rate adjustments and stricter enforcement, it has proven difficult to distinguish income gains attributable to tax relief from gains attributable to improved tax treatment or changes in tax laws. Already other structural changes will increase the same income without the amnesty. In this case, amnesty, in a sense, causes the state to lose money due to foreclosed interest or penalties. (Uchitelle, 1989, p. 50)

A country must adhere to certain principles to limit the drawbacks of the tax amnesty program. First, the sources of the incompatibility problem that is being tried to be mitigated should be identified. The source of this problem

is usually either an ineffective revenue administration or an inappropriate tax policy system. Once the source of the mismatch has been identified, a credible program should be put in place to target the source of the problem. (Baer and Borgne, 2008, p. 58-59)

In order to eliminate the cost of tax amnesties, the current tax system in the country should be well analyzed before tax amnesties are issued and certain basic points should be considered as a result of this analysis. These key points are; the limits of the tax amnesty should be well defined, that is, it should be stated which taxpayers will be covered by this amnesty. In addition to which income items will be included in the amnesty, the limit of the original or secondary of the tax should be clearly defined, thus paving the way for the correct estimation of the income effect of the amnesty. The period of amnesty should be specified especially because the expectation that the amnesty will be continuous causes long-term tax losses, as it generally reduces the taxpayer's compliance, although the opposite results have emerged in some countries. Tax amnesty should be supported simultaneously with measures to strengthen the tax system and audit mechanism, participation in amnesty should be easy, away from formalities and should encourage taxpayers. Amnesty should be promoted sufficiently in the written and visual media, and the participation of taxpayers who could not fulfill their obligations for any reason in the past should be kept confidential, thus reducing the possible negative effects of social pressure on taxpayers. (Ayrangöl and Tekdere, 2013, p. 268) The elements required for a successful tax amnesty policy are listed below; (Gonzalez, 2021)

- The benefits and costs of tax amnesties should be comprehensively evaluated.
- Tax amnesty applications should not be repeated frequently over time. Otherwise, tax amnesties cause the tax system to be structured as an irregular tax system. Thus, this tends to undermine the ordinary tax base.
- It is seen that it is difficult to carry the income obtained through tax amnesty other than the property tax income to the next years.
- Taking additional measures together with the tax amnesty reduces the cost in terms of the damage caused by the amnesty to the fiscal discipline.
- Tax amnesties duly justified for political and natural reasons are socially accepted.
- Those who apply for tax amnesty for tax or economic reasons can benefit from tax amnesties more easily if they make significant investments for the development of the economy.

In fact, the lessons learned for tax collection are clear. Making tax information more specific and easy to understand, increasing people's cognitive efforts, and reducing the tendency for people to ignore very complex information will increase the potential for success of tax amnesty policies. (Scartascini, 2019) A tax amnesty with improved enforcement mechanisms will not only increase benefits, but will also reassure taxpayers who act fairly that the government's determination to catch future tax offenders. (Stella, 1989, p. 13)

Again, when the IMF's "*Tax Amnesties: Theory, Trends and Some Alternatives*" publication is examined, the advantages and disadvantages of amnesties are highlighted and it is stated that tax amnesties should include the following elements according to the results obtained from selected countries and US state case studies; (Baer and Borgne, 2008, p. 58-59)

- Tax amnesties should be limited to a short time.
- A definite deadline for participation in tax amnesties must be specified.
- Taxpayers guilty of tax amnesty should not be included. However, non-taxpayers, unregistered taxpayers and tax evaders can be included.
- The amnesty should not reduce the net present value of the tax liability and the interest rates calculated on that value.
- Finally, tax amnesties should not run counter to general reform arrangements that can improve tax compliance. E.g; taxpayers who comply and do not comply with the law should not be treated equally. This situation makes it difficult to identify taxpayers who do not comply with the law, and thus undermines their follow-up.

Therefore, tax amnesties should not be rejected directly. Amnesties that can increase taxpayer compliance should be taken as a basis. In particular, tax amnesties need to be designed that allow individuals to increase tax compliance without the risk of excessive penalties for past evasion, encourage voluntary compliance with tax laws, and are implemented through improved enforcement mechanisms. (Stella, 1989, p. 23) The pros and cons of fiscal amnesties should be well analyzed by taking into account the current conditions of the country, taxpayers should be informed about taxation and it should be stated that tax amnesties are not a routine practice and tax amnesties should be removed from being a political tool. Tax evasion should be prevented without the need for tax amnesties by developing mechanisms that provide self-control in taxation. (Ayragöl and Tekdere, 2013, p. 268)

Consequently, tax amnesties are a poor alternative to efforts to improve the structure of the tax system and strengthen the legal framework and capacity of

the tax administration. It takes time, tremendous effort and resources, especially to strengthen the last two. Policy makers should not be tempted by the perceived “easy fixes” through tax amnesties, which could yield some short-term revenue gains at the expense of long-term efforts to reform tax policy and modernize the tax administration. At the same time, every effort should be made to analyze the key policy and administrative issues that led to the offer of tax amnesty, devise strategies to address these key issues, and identify alternative policies that can lead to sustainable improvements in taxpayer compliance and tax revenue performance. (Baer and Borgne, 2008, p. 59)

6. Conclusion

The application of tax amnesty, which is defined as the renunciation of the right to receivable by a law to be enacted by the state, constitutes the main subject of our study. The results obtained as a result of the study are listed below;

- Tax amnesty policy is inherent in each country’s socio-economic tax context. Countries need extensive tax amnesty for economic, political, social and tax reasons.
- Tax amnesties are no longer an exception and it should not become routine. Repeated tax amnesties bring about negative effects.
- Amnesty usually leads to one-time income gains, but not lasting effects. For this reason, tax amnesties are seen as an important tool that is frequently used by policy makers and can easily solve existing problems.
- However, an effective and efficient tax amnesty depends on a healthy tax system. The lack of a healthy tax system continues to exist as one of the most important reasons for amnesty.
- Adjustments need to be made in other areas of the tax system to achieve success in tax amnesties. For this, a good analysis of the current tax system is essential. In this respect, factors such as the limits of tax amnesties, which items will be included in the amnesty and its duration should be specified, and it should be supported simultaneously with measures that strengthen the tax system and with the audit mechanism.
- Tax amnesties appear to be more successful when combined with a general package of tax changes (such as rate adjustments and legal procedures).
- Along with the cash flow, tax amnesties offer a short-term solution to the long-term problems of countries and cause states to ignore their structural problems in the economy.

As a result, tax amnesties are one of the most controversial issues in public policy due to the difficulty of measuring benefits and costs. Tax amnesty practices have a distorting effect on tax compliance and tax morale. Tax amnesties are generally applied by countries to provide a short-term solution to long-term problems. However, the short-term benefits of tax amnesties, which send false messages to taxpayers, bring negative consequences in the long run. While tax amnesties violate the principle of justice for taxpayers who respect the law, on the other hand, they are a special agreement for taxpayers who do not respect the law. It rewards those who evade the law despite those who fulfill their tax amnesty obligations on time. On the other hand, tax amnesty policy is inherent in the socio-economic tax context of each country. However, an effective tax amnesty depends on a healthy tax system.

For a successful tax amnesty, the pros and cons of tax amnesties should be well analyzed by taking into account the current conditions of the country, taxpayers should be informed about taxation and it should be stated that tax amnesties are not a routine practice and tax amnesties should be removed from being a political tool. The most important thing is to combine a constitutional limitation with an amnesty arrangement that will convince the society that a permanent amnesty law will not be enacted by political choices.

Tax amnesties should be strengthened with structural mechanisms and legal procedures and contribute to the expansion of the tax base and the increase of general tax compliance. It should not be forgotten that tax compliance depends on the trust in the justice of the system and the belief that the collected taxes are spent for the real needs of the society. For this reason, it is necessary to analyze the problems that cause tax amnesties, to develop strategies for these problems, and to determine all kinds of policies for a sustainable improvement in general tax compliance and tax revenues.

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CHAPTER VI

PRODUCTION COSTS AND PROFITABILITY OF TEA IN TURKEY: THE CASE OF ÇAYKUR ENTERPRISES¹

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1. Introduction

The tea plant, the second consumed by people after water, has become a beverage with high economic value that also benefits human health. The leaves of the tea plant, which grows wild in nature, are processed to make tea. The tea plant grows in a mild climate and abundant rainfall ((Yılmaz, 2019: 1). According to various sources, China and India are the homelands of tea. After China and India, Japan and other Asian countries are the only countries that recognize tea (ÇAYKUR Faaliyet Raporu, 2020). Tea is grown in 49 different nations throughout the world. China, India, Sri Lanka, and Turkey are countries where tea cultivation is particularly intensive (Figure 1).

Tea cultivation in Turkey is carried out in a region covering the provinces of Rize, Trabzon, Artvin, Ordu, and Giresun. 66% of the tea fields are located in Rize, 20% in Trabzon, 11% in Artvin, and 3% in Ordu and Giresun provinces. Tea cultivation and industry make important contributions to the development of agriculture industry, socio-economic levels, income distribution, and to the prevention of erosion and regional migration.

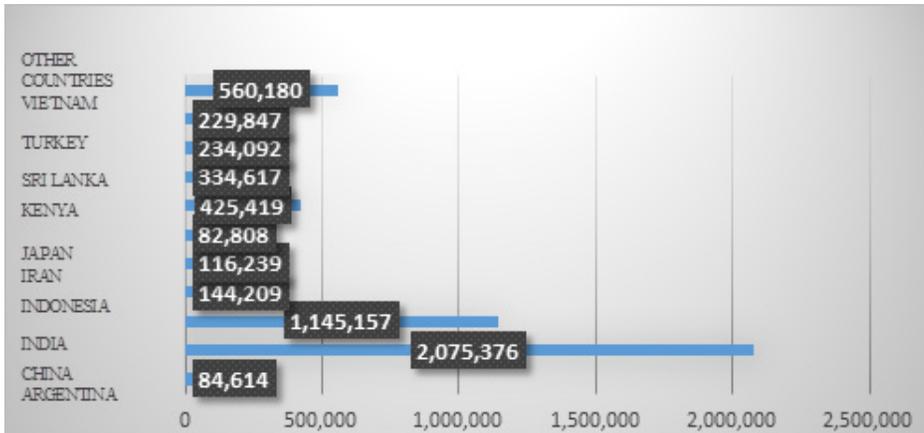
ÇAY-KUR, the General Directorate of Tea Enterprises, was founded in 1983 as an autonomous and legal-entity State Economic Organization with limited capital. There are 47 fresh tea processing factories and 1 packaging

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factory, 2 marketing and production regional directorates affiliated to ÇAY-KUR. It is the largest and leading organization in the Turkish tea industry with 16,500 employees and a fresh tea processing capacity of 6,600 tons/day. According to the data received from the organization, tea production is made on 767,631 decares of tea area. About 55-60% of the tea produced in the region is purchased by ÇAY-KUR.

Suitability for tea production is made possible by the climate and soil characteristics. The annual average temperature for tea production should not be less than 14 degrees Celsius, annual precipitation should not be less than 2000 mm, distribution should be regular, and relative humidity should be at least 70% (ÇAYKUR Faaliyet Raporu, 2020).

Figure 1. Average Distribution of Global Tea Production Between 2010-2018.



Source: ÇAYKUR Statistics Bulletin, 2020

Per capita consumption of tea in countries worldwide varies from country to country. According to 2017-2018 data, Turkey is on the first rung of the ranking. In Turkey, 3.20 kg of tea is consumed; in Libya, 2.40 kg; in Afghanistan, 2.20 kg; in England, Morocco, Qatar, and Ireland, about 2 kg; in Sri Lanka, China, Hong Kong, Taiwan, Ukraine, and Chile, 1 kg per person; and in India and Egypt, 800 grams (Table 1).

**Table 1. Average Per Capita Consumption of Tea in The World
(2017-2018)**

COUNTRIES	AMOUNT (Kg)
TURKEY	3.20
LIBYA	2.40
AFGHANISTAN	2.20
QATAR	2.00
ENGLAND	2.00
MOROCCO	2.00
IRELAND	2.00
CHINA	1.00
SRI LANKA	1.00
HONG KONG	1.00
TAIWAN	1.00
UKRAINE	1.00
CHILE	1.00
EGYPT	0.800
INDIA	0.800

Note: The author created this table

In this study, the production cost and profitability of tea are examined in relation to ÇAY-KUR. The findings of the research revealed that the production costs of packaged black tea is 21.44TL/KG, packaged green tea is 54.17TL/KG, packaged organic tea is 30.36TL/KG, and sorted tea is 21,40TL/KG. 141.000 tons of packaged tea was produced with 200,845 fresh tea producers in the region. In the research, it was found that ÇAYKUR enterprises, which have reported loss in the last years, and closed the year 2020 with a loss of 547,247,289.94 TL.

2. Tea Production In Turkey

Although the habit of drinking tea did not start in Turkey until after 1600 years, the beginning of its production dates back to 1917 (Dağdemir ve Özçelebi, 1998: 127), a committee was sent to Batum and its surroundings to determine the suitability of the tea. As a result of the investigations, the cultivation of tea plants in the eastern Black Sea region, which has a similar ecology to Batum, was found to be suitable. In line with this 1917 report, Law No. 407 on Tea Cultivation was enacted in the Grand National Assembly of Turkey in

1924 (ÇAYKUR Faaliyet Raporu, 2020). In 1938, the first wet tea harvest and processed tea production began. The Tea Law No. 3788, issued in 1940, secured Turkish tea and made a license to operate a tea garden mandatory. The first tea factory started its operation in 1947 under Merkez Çay Fabrikası (Central Tea Factory).

The State Institution carried out agricultural and industrial activities in tea cultivation for Agricultural Enterprises between 1938 and 1948 and tea enterprises in cooperation with the General Directorate of Monopolies and the Ministry of Agriculture between 1949 and 1973. The tea enterprises, which remained under the state monopoly until 1984, were released by the “Tea Law” No. 3092. The tea enterprises are state-owned economic enterprises, subject to the provisions of the Decree-Law on Public Economic Enterprises of 8.6.1984, numbered 233, autonomous in their activities, wholly owned by the State, and with limited liability and legal personality. It shall be governed by Public Procurement Law No. 4734 and Public Procurement Law No. 4735. Tea Enterprises shall be governed by the provisions of private law, subject to the provisions of the principal law. The activities of Tea Enterprises, which is headquartered in Rize, are subject to audit by the Court of Accounts. Its capital amounts to TL 2,945,000,000 and is wholly owned by the State. Tea Enterprises were transferred to Turkey.

Tea agriculture and industry play a key role in enhancing socio-economic development in our country’s Eastern Black Sea Region, including urbanization, income distribution, regional migration, efficient use of agricultural lands, erosion prevention, agriculture-based industry development, and similar areas. The goals and activities of the Tea Enterprises are in line with Turkey’s agricultural policy. In this context, tea agriculture shall be developed according to the principles of economic profitability and efficiency to obtain the maximum benefits under the conditions of the free market, to create an investment resource by promoting capital accumulation, to produce, market, export, and import all kinds of tea products, providing the necessary supply of raw materials, to provide all kinds of benefits that increase the competitiveness of the institution in domestic and foreign markets.

Table 2 shows the tea purchase prices and support premiums for Tea Enterprises over the years. The base price of fresh tea is continuously increasing over the years. The base price of fresh tea, 0.885 TL in 2010, increased to 2.90 TL in 2019. The state support premium remained constant for several years, and increases were realized at low rates. The support premium, which was 0.115 TL in 2010, was increased to 0.12 TL in 2015 and 0.13 TL in 2019 (Table 2).

Table 2. Fresh Tea Purchase Costs by Years

Year	Fresh Tea Base Price (TL/kg)	Support Premium	Total Fresh Tea Price (TL/kg)
2010	0.885	0.115	1.00
2011	0.98	0.12	1.10
2012	1.10	0.12	1.22
2013	1.25	0.12	1.37
2014	1.38	0.12	1.50
2015	1.58	0.12	1.70
2016	1.77	0.13	1.90
2017	2.00	0.13	2.13
2018	2.32	0.13	2.45
2019	2.90	0.13	3.03

Source: ÇAYKUR Annual Report, 2020

3. ÇAYKUR Enterprises

ÇAY-KUR, the leading company in the Turkish tea industry, has 46 tea factories. Although the production of fresh tea in the region varies from year to year, about 50-55% of tea is purchased from ÇAY-KUR. The market share of Tea Enterprises in the processed tea market is about 40-45%.

The tea sector has not established a balance between production and consumption for many years. The oversupply in the sector has driven up storage costs in addition to production, which has had a negative impact on Tea Enterprises. This situation has led to a delay in payments from growers for fresh tea royalties, and the need for foreign resources has come to the fore.

In 2000, Tea Enterprises began to buy tea programmatically to solve financing problems and balance supply and demand. The amount of fresh tea that must be purchased annually by Tea Enterprises under programmed fresh tea purchases is currently determined based on annual processed tea sales. Starting in 2013, an appointment system for purchasing fresh tea was introduced. With the appointment system for tea purchase, it is not only easier to sell tea to growers, but it also prevents the overcrowding of Tea Enterprises' tea purchasing offices.

Tea production in Tea Enterprises is done according to the license. The last license for tea gardens was issued in 1994 by the Decision of the Council of Ministers No. 93/5096. As a result of this decision, a license was issued for 767 thousand decares of tea fields. After 1994, no action was taken to issue licenses. Today, there are 785,693 decares tea fields of 200,845-year-old tea producers registered in the Tea Enterprises.

At the end of 2019, Tea Enterprises employed 2,615 people, 384 civil servants, 900 contract employees, 1,307 permanent employees, and 24 temporary employees. In 2019, compared to 2018, the number of civil servants increased by 43 people, and the number of contract employees decreased by 80. The number of permanent employees is 1,307, the number of temporary employees is 8,478, and the total number of employees is 9,875 (Table 3).

Table 3. Distribution of Personnel Working in Tea Enterprises by Class (31.12.2019)

CLASS	NUMBER
Officer	
General Administrative Services	384
Contract Staff	900
TOTAL	1,284
Employees	
Permanent Employees	1,307
Temporary Employees	8,478
TOTAL	9,785
GRAND TOTAL	11,069

Source: ÇAYKUR Annual Report, 2020

Table 4 shows the payments made to officers and employees in Tea Enterprises between 2015 and 2019. The table shows that although payments for employees and officers have increased over the years, the increase in 2018 and 2019 was higher than in other years (Table 4).

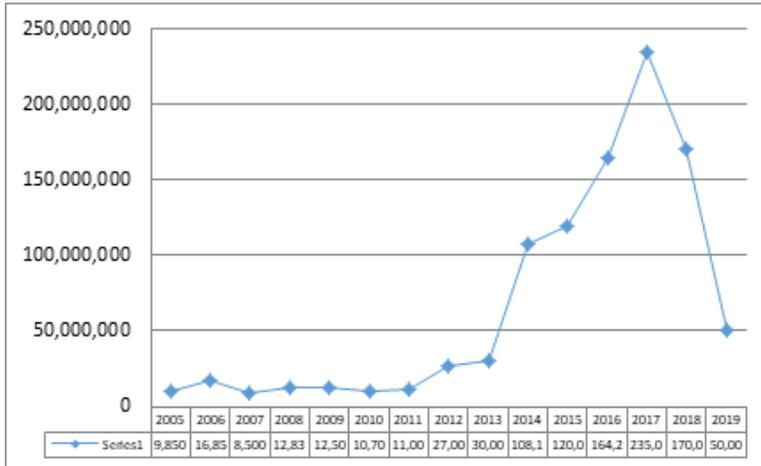
Table 4. Officer and Employee Payments by Year

Types of Expenses	YEARS (Thousand TL)				
	2015	2016	2017	2018	2019
Gross Labor	380,948	389,925	403,837	485,749	545,466
Gross Officer	82,886	92,063	98,334	110,497	124,904
TOTAL	463,834	482,555	502,171	596,246	670,370

Source: ÇAYKUR Annual Report, 2020

Figure 2 shows the Tea Enterprises' investment allowances by year. Since 2014, the investment allowance has increased, reaching a peak of 230,000,000 thousand TL in 2017. It was below 50,000,000 thousand TL from 2005 to 2013. The investment allowance, which started to decrease again in 2018, decreased to 50,000,000 thousand TL in 2019 (Figure 2).

Figure 2. Investment Allowances by Years (Thousand)



Source: ÇAYKUR Annual Report, 2020

Table 5 shows the number of factories and processing capacity of ÇAYKUR in 2000 for 2019. The number of factories, 46 in 2000, remains 46 in 2019. The processing capacities of ÇAYKUR, on the other hand, increased continuously from 2000 to 2019 and reached 8,700 tons, starting from a processing capacity of 6,800 tons (Table 5).

Table 5. Number of Factories and Processing Capacities of ÇAYKUR by Years

Years	Number of Factory	Capacity Tons/Day
2000	46	6,800
2001	46	6,800
2002	46	6,800
2003	46	6,800
2004	46	6,615
2005	45	6,465
2006	45	6,465
2007	46	6,615
2008	46	6,615
2009	47	6,760
2010	47	6,730
2011	47	6,750
2012	46	7,100
2013	45	7,055
2014	45	7,600
2015	45	8,000
2016	45	8,650
2017	46	9,100
2018	46	9,100
2019	46	8,700

Source: ÇAYKUR Annual Report, 2020

Table 6 shows the number and capacities of ÇAYKUR factories by province. The table shows that Tea Enterprises are concentrated in Rize. ÇAYKUR has 46 factories with a total processing capacity of 9,020 tons of tea (Table 6).

Table 6. Number and Capacities of Tea Factories Owned by ÇAYKUR by Province

Provinces	Number	Capacity (ton/day)
RİZE	33	6,450
TRABZON	8	1,510
ARTVİN	4	880
GİRESUN	1	180
ORDU	-	-
TOPLAM	46	9,020

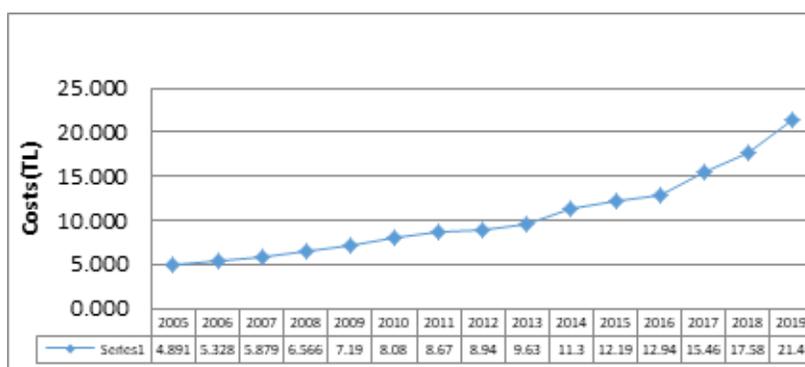
Source: ÇAYKUR Annual Report, 2020

In 2019, a total of 115,080 tons of tea were produced. 98,786 tons (81%) of tea production was 100. Yıl Paketleme Fabrikası (Packaging Factory) and 16,294 tons (19%) at the Ankara Packaging Factory.

4. Production Cost Of Tea In Çaykur Enterprise

Over the years, the production cost of classified black tea has increased continuously from 2005 to 2019. The production cost of tea, which was 4.89 TL in 2005, increased to 21.4 TL in 2019. After 2016, the production cost of classified black tea increased more than in previous years (Figure 3). Here, the increase in production cost can be explained by the increase in investment allowances.

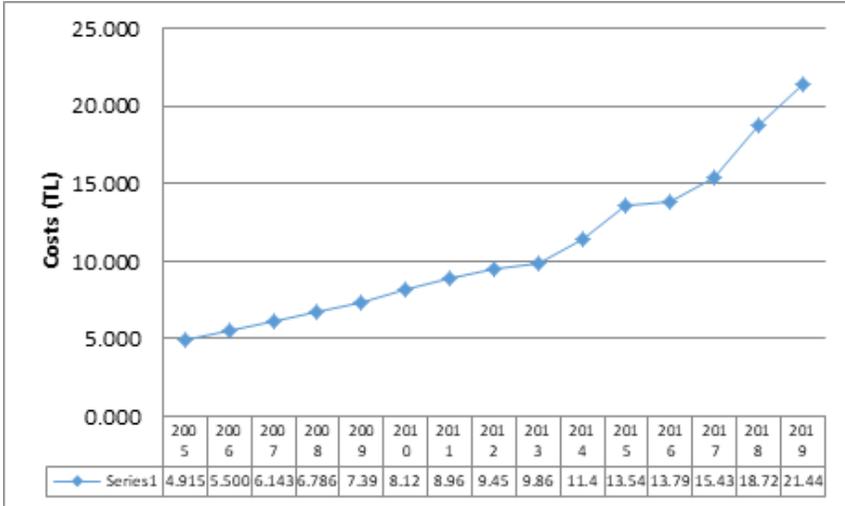
Figure 3. Change of Production Cost of Shorted Black Tea by Years



Source: ÇAYKUR Annual Report, 2020

Production Costs For Packaged Black Tea Have Increased Similarly To Production Costs For Graded Tea. The Cost Of Packaged Black Tea Has Increased Steadily From 2005 To 2019. The Cost Of Packed Black Tea, Which Was 4.915 TL In 2005, Increased To 21.44 TL In 2019 (Figure 4).

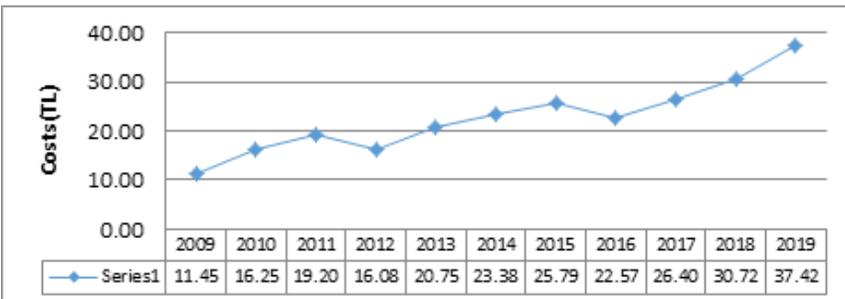
Figure 4. Change in Production Costs of Packaged Black Tea by Year



Source: ÇAYKUR Annual Report, 2020

Production costs of organic black tea sorted by year are shown in Figure 5. Although the production cost of sorted organic black tea has fluctuated from 2009 to 2019, it has been steadily increasing. This increase has had an upward trend since 2016. The production cost of graded black tea, 11.45 TL in 2009, increased to 37.42 TL in 2019 (Figure 5).

Figure 5. Change in Production Costs for Sorted Organic Black Tea by Year

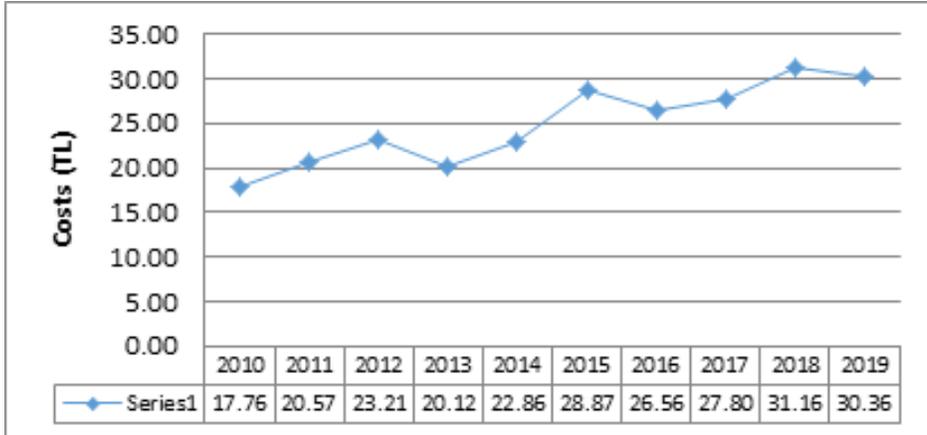


Source: ÇAYKUR Annual Report, 2020

Figure 6 depicts the distribution of manufacturing costs for packaged organic tea by year. The production cost of packaged organic tea produced since 2010

has increased steadily over the years. The production cost of packaged organic tea, 17.76 TL in 2010, increased to 30.36 TL in 2019, with the highest Increase in 2015 (Figure 6).

Figure 6. Changes in Production Costs of Packaged Organic Tea by Year



Source: ÇAYKUR Annual Report, 2020

The cost of producing categorized green tea climbed from 6.37 TL in 2005 to 41.36 TL in 2019. The cost of producing packaged green tea climbed from 10.94 TL in 2005 to 54.17 TL in 2019. While the production cost of classified organic green tea was 15.10 TL in 2009, it increased to 43 TL in 2019. While the production cost of packaged organic green tea was 18.60 TL in 2009, it increased to 34.83 TL in 2019. As a result, the cost of producing tea is steadily rising.

In Turkey as a whole, 29.31% of tea is sold in Istanbul, 21.30% in Ankara, 15.08% in İzmir, 6.40% in Samsun, 5.31% in Kayseri, 5.51% in Mersin, 8.94% in Rize, 4.40% in Diyarbakır and 3.75% in Erzurum. According to the 2019 data, 121,384 tons of packed and loose tea were sold in Turkey and abroad.

5. Profit-Loss Status In Çaykur Enterprises

ÇAYKUR was transferred to Turkey Wealth Fund in February 2017. Looking at the anticipated and realized balance sheet profits and losses of ÇAYKUR in the last year, the institution made a profit only in 2014, 2015, and 2016. In the other years, ÇAYKUR ended with a loss that exceeded the forecast. After the transfer to ÇAYKUR Turkey Wealth Fund, the institution has continuously made losses, and the approximate loss between 2017 and 2020 was TL 2.1 billion (Table 7).

Table 7. Anticipated and Realized Balance Sheet Profit-Loss of ÇAYKUR by Year

Years	Anticipated (Million TL)	Realized (Million TL)
2010	9	-27
2011	-59.2	-74.6
2012	-121	-64.8
2013	-36	-39.3
2014	-40.4	12.1
2015	-195	22.7
2016	-48.3	82.1
2017	131.3	-267.7
2018	42.3	-657.1
2019	-412.7	-635.1
2020	-412.7	-547.2

Source: ÇAYKUR Annual Report, 2020

The annual report published by ÇAYKUR in 2020 shows that the institution has suffered losses after its transfer to the Turkey Wealth Fund, and the balance sheet loss has increased. After the transfer to ÇAYKUR Turkey Wealth Fund, it announced a balance sheet loss of TL 2.1 billion. Short-term borrowing expenses are items that most feel the balance sheet loss of ÇAYKUR. The institution's loan expense, TL 8.3 million in 2010, increased to TL 41.1 million in 2015 and TL 110.6 million in 2016. The public cited short-term borrowing costs as the main reason for transferring ÇAYKUR to the Turkey Wealth Fund. The ratio of short-term borrowing costs to balance sheet loss was 65% in 2017, 53% in 2018, and 62% in 2019. The ratio of short-term borrowing costs to balance sheet loss, TL 322.6 million in 2020, decreased to 59% (ÇAYKUR Annual Report, 2020).

Considering ÇAYKUR's revenue performance over the last three years, 2020 shows a more positive performance than the last three years. While net sales revenues were below costing in 2017 and 2018, net sales revenues exceeded costs in 2019. In 2020, net sales revenues were TL 45 million higher than costs.

6. Conclusion And Evaluation

ÇAY-KUR, the leading company in the Turkish tea industry, has 46 tea factories. Today, there are 785,693 decares of tea fields of 200,845-year-old tea producers in Tea Enterprises.

Tea production has been fluctuating from year to year in recent years. In 2019, 141 thousand tons of tea were produced, and 121,384 tons of packed

and loose tea were sold, according to data. While the number of employees at ÇAYKUR was 2 thousand 615 at the end of 2019, this number decreased to 2 thousand 362 in 2020.

From the research results, the production cost of packaged black tea is 21.44TL/ KG, the production cost of packaged green tea is 54.17TL/ KG, the production cost of packaged organic tea is 30.36TL/ KG, the production cost of packaged green tea is 34.83TL/ KG, the production cost of sorted black tea is 21.40TL/ KG, the production cost of sorted green tea is 41.36TL/ KG, and the production cost of sorted organic black tea is 37.42TL/ KG.

After the transfer to Turkey Wealth Fund, ÇAYKUR has continuously made losses, and the approximate loss between 2017 and 2020 was TL 2.1 billion. The year 2020 ended with a loss of TL 547,247,289.94. These results suggest that tea production is not a profitable branch of production.

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CHAPTER VII

EFFECTS OF ARTIFICIAL INTELLIGENCE ON E-COMMERCE

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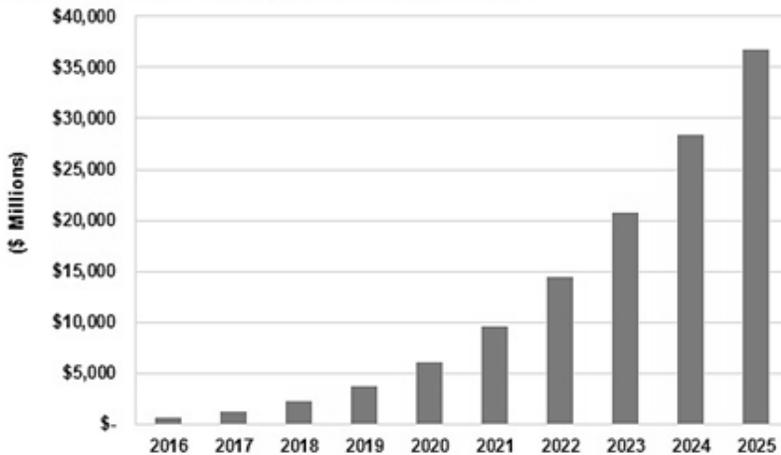
1. Introduction

Today, artificial intelligence can be used in almost all industries, and it can be understood that artificial intelligence is now accepted also in e-commerce (Mahajan, 2020). Artificial intelligence in e-commerce is used to understand the requests of a wide range of customers in real time, and to analyze and make inferences from these analyses among many other benefits (Soni, 2020, p. 223).

Artificial intelligence “helps the management of a company organize, plan and control operations by bringing more complex data analysis features to existing applications in various industries” (Kasemsap, 2017, p. 454). In addition, artificial intelligence provides businesses with several other advantages: They can do more and faster work in less time, reduce the workload of employees and ensure that they work more efficiently, minimize human-induced errors in operations, perform some monotonous and repetitive tasks automatically to prevent the lack of interest and work procrastination habits, easily make complex calculations, facilitate the discovery of innovations and obtain highly positive results (Khanzode & Sarode, 2020, p. 34; Saidyutivaishnavi, 2021, pp. 82-83).

Found in almost all industries, artificial intelligence produced an annual income of 643.7 million dollars in 2016 in the global market, while it is estimated to reach 36.8 billion dollars by 2025 (Tractica, 2016). Figure 1 shows the income distribution of artificial intelligence in the global market by years. An Accenture report states that the profitability of businesses that successfully apply artificial intelligence can rise by 38% on average by 2035 (Ebden, 2017).

Figure 1: Income distribution of artificial intelligence in the global market by years



Source: Tractica (as cited in Simon, 2019)

According to Statista (2021) data, e-commerce retail sales around the world is estimated to exceed 6.3 trillion dollars in 2024 (Burak, 2021, p. 12). More and more businesses integrate artificial intelligence in their activities to tap its existing and potential advantages in the future. Research indicates that both e-commerce sales and income distribution of artificial intelligence will increase in the global market. To ensure that businesses engaged in e-commerce benefit from artificial intelligence at the highest possible level, it is essential to understand the concept of artificial intelligence as well as its effects on e-commerce.

This study elaborates on the concept of artificial intelligence, the relationship between artificial intelligence, machine learning and deep learning, artificial intelligence levels and the effect of artificial intelligence on e-commerce.

2. The Concept of Artificial Intelligence

The first study in the literature contributing to the emergence of the concept of artificial intelligence is British mathematician Alan Turing's work, "Computing Machinery and Intelligence" written in 1950. Seeking an answer to the question of whether machines could think (OECD, 2019, p. 20). Kaplan and Haenlein (2019, p. 15) define artificial intelligence as "the ability of a system to correctly interpret external data, learn from such data, and use these learnings to achieve specific goals through flexible adaptation". Kasemsap (2017, p. 454) describes artificial intelligence as "a branch of machinery that helps find solutions to

complex problems in a way that is suitable for human beings”. He states that artificial intelligence has “the goal of creating human-like behaviors in machines for perception, reasoning, and action” (Prem, 2019, p. 6). “Odaka (2016) explains that if AI is defined as ‘a system that acts like a human,’ AI needs a body and mind like a human being; in that sense, the body or brain of AI is a computer or hardware and mind is an algorithm or software” (Lee, 2019, p. 18).

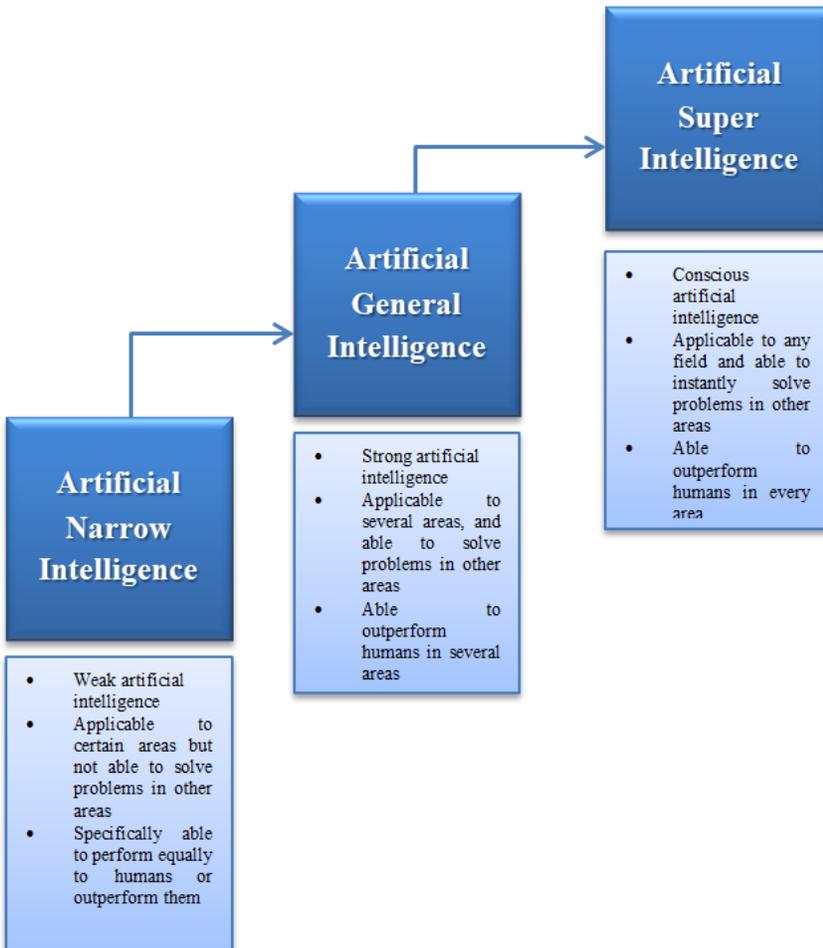
Russell and Norvig (1995, p. 5) in this context, definitions of artificial intelligence in the literature are categorized in four groups: “Systems that think like humans”, “systems that act like humans”, “systems that think rationally” and “systems that act rationally”. Dong, Hou, Zhang, and Zhang (2020, p. 3) state that artificial intelligence develops under the direction of human intelligence and all opportunities offered by artificial intelligence are a reflection and control of human intelligence.

Some of the features of artificial intelligence are (Duin & Bakhshi, 2018, p. 6):

- Ability to process large amounts of structured and unstructured data that change constantly,
- Ability to make situational inferences and reason in the form of deduction and induction,
- Ability to learn from knowledge obtained from expert inputs, historical patterns and feedback,
- Ability to analyze and solve complex problems.

3. Artificial Intelligence Levels

Kaplan and Haenlein (2019, p. 2) in their study state that there are three artificial intelligence levels. Kaplan and Haenlein (2019) define the “first generation” as the Artificial Narrow Intelligence, which can be applied to only certain tasks such as “Facebook’s tagging and facial recognition features”, “Siri’s voice recognition” and “Tesla’s development of autonomous cars”. The “second generation” they define is Artificial General Intelligence. Indicating the future’s artificial intelligence, this level refers to the artificial intelligence that “can reason, plan and solve problems for tasks that were not designed before”. Finally, they define the “third-generation” as the Artificial Super Intelligence that can have “scientific innovation”, “social skills” and “general wisdom”(Kaplan & Haenlein, 2019, p. 2). Figure 2 shows artificial intelligence levels.

Figure 2: Artificial Intelligence Levels

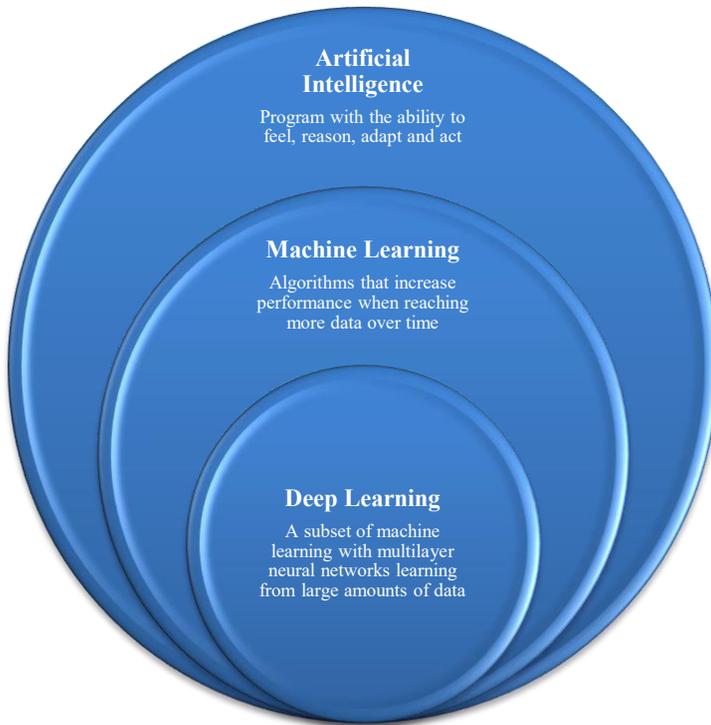
Source: Kaplan & Haenlein, 2019, p. 2

Searle (1980) also examined artificial intelligence as strong and weak in his study. According to Searle (1980), weak artificial intelligence is a powerful tool for various analyses, tests, etc. Strong artificial intelligence, on the other hand, is not only a tool for analyses, tests, etc., but also a type of “intelligence that can understand and has other cognitive abilities” (Searle, 1980, p. 417).

4. The Relationship between Artificial Intelligence, Machine Learning and Deep Learning

Along with artificial intelligence, machine learning and deep learning are concepts that have become popular today. Figure 3 shows the relationship between artificial intelligence, machine learning and deep learning.

Figure 3: The relationship between artificial intelligence, machine learning and deep learning



Source: Oppermann, 2019

Sub-fields of artificial intelligence include machine learning and deep learning. Artificial intelligence refers to programs “to develop techniques that allow computers to act like intelligent organisms, i.e. humans” (William J. Raynor, 1999).

On the other hand, machine learning refers to “algorithms that can show increased performance over time by obtaining more data. Machine learning also includes classical algorithms for tasks such as regression, clustering or categorization.” In deep learning, there are artificial neural networks to provide the opportunity to solve tasks that machine learning models cannot solve. Deep learning uses the layered structure of algorithms referred to as neural networks (Oppermann, 2019) “Deep learning algorithm passes the data through several layers; each layer is capable of extracting features progressively and passes it to the next layer. Initial layers extract low-level features, and succeeding layers combines features to form a complete representation. Learning is a process in which association of events with consequences is done” (Rani & Kalyan, 2019).

5. Effects of Artificial Intelligence on E-Commerce

Artificial intelligence has various effects on e-commerce. These are (Bondy, 2021; Puzhevich, 2021; Qureshi, 2021; Sahu, 2020):

- Based on artificial intelligence, virtual assistants can provide advanced product search and customer support (24/7) services. Voice assistants offer voice shopping options to customers.
- Artificial intelligence offers the most suitable goods (clothing, electronics, etc.) to online shoppers and thus, reduces the rates of returns in online shopping.
- Artificial intelligence can be used for deep customer analysis to develop the best new product offers to customers (according to their demographic characteristics, location, previous individual behaviors and other metrics) and these offers can then be sent via e-mail. In addition, these offers can be updated with feedback from customers.
- Artificial intelligence can provide the opportunity to obtain information with greater accuracy and benefit from large amounts of structured and/or unstructured data on e-commerce servers.
- One can obtain detailed information about products by visiting stores online, or scanning product photos or labels through search-based visual algorithms.
- Artificial intelligence also offers the benefits of real-time dynamic pricing according to certain factors.
- Artificial intelligence offers customers alternative options for cheap delivery in the shortest time possible and real-time product tracking services.
- Artificial intelligence is able to forecast sales by analyzing stock levels and purchase history, allowing the order of only requested products, materials, etc. Thus, it can also contribute to budget allocations and warehouse management.
- Artificial intelligence contributes to the automatization of the online shopping process from order taking to stock check, and from product packaging to delivery, allowing businesses to achieve agility, productivity and efficiency.
- Artificial intelligence can be used to follow the comments of buyers or customers, etc. on social media (by various keywords and expressions) to help businesses produce solutions for their weaknesses.

- Artificial intelligence can help monitor cybersecurity-related activities, and detect and prevent suspicious behaviors on e-commerce platforms.

Points that leaders should consider to successfully use artificial intelligence in their businesses (Ebden, 2017):

- **Going beyond automation:** With the gains of artificial intelligence, businesses need to go further than traditional automation to be able to use machine intelligence.
- **Learning with machines:** In adapting learning and employee training to the changing trends, leaders should provide learning opportunities according to their employees' needs particularly in the field of agile skills development.
- **Managing artificial intelligence sources:** Human resources managers should be responsible not only for managing human resources but also for the interaction between humans and machines or human and artificial intelligence sources.
- **Measuring gigabyte return on investment:** New financial metric tools are needed to accurately assess the value of investing in artificial intelligence, such as the return on investment in gigabytes or processing power.
- **Assigning a data supply chain controller:** There is a need for this role to create an integrated and end-to-end data supply chain.
- **Taking the crowd to the cloud:** With the next stage of innovation, crowdsourcing data in the cloud can be combined with artificial intelligence to create new business opportunities.
- **Creating an open artificial intelligence culture:** Integrating artificial intelligence into business culture can help employees eliminate their worries, embrace and benefit from artificial intelligence in their work.

6. Conclusion

It is understood that the use of artificial intelligence in e-commerce will be “differentiating in terms of performance” at a level that will be even more obvious in the future (Laurent, 2021). Thus, businesses need to stay away from negligent and uncaring approaches in benefiting and adapting artificial intelligence in their businesses so that they can maintain their competitiveness and gain an advantageous position.

The study elaborated on Kaplan and Haenlein (2019)'s artificial narrow intelligence, artificial general intelligence and artificial super intelligence

levels, and Searle's (1980) strong and weak artificial intelligence levels. In this regard, it is important for businesses engaged in e-commerce to increase their artificial intelligence level as much as possible and use it effectively so that they do not fall behind their competitors. Considering that the interest in the use of artificial intelligence will increase in the future (Tractica, 2016), it is understood that it will be beneficial for businesses engaged in e-commerce to start use artificial intelligence if they have not yet done so. They should first make use of the artificial narrow intelligence and weak artificial intelligence as effectively as possible, and then prepare plans in advance to reach advanced artificial intelligence levels in the future.

Despite many advantages of artificial intelligence such as "improved operational efficiency and productivity", "automation of tasks and procedures", "less errors", "improved decision making with real-time data" (Abonamah, Tariq, & Shilbayeh, 2021, p. 5), it has some disadvantages such as "misuse", "program incompatibility", "causing unemployment", "high cost", "technological dependency" (Khanzode & Sarode, 2020, p. 34) and "ethical, legal and social problems" (Thiebes, Lins, & Sunyaev, 2021, p. 447). Therefore, it is important for businesses to keep the level of technological dependency low, to have a cautious approach and to make plans in order not to be affected by other possible direct and indirect disadvantages, while making optimum use of the advantages of artificial intelligence.

In the light of the literature, this study analyzed the concept of artificial intelligence, the relationship between machine learning and deep learning, artificial intelligence levels and the effects of artificial intelligence on e-commerce. Future studies may also empirically investigate the effects of artificial intelligence on e-commerce.

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CHAPTER VIII

THE DETERMINANTS OF INTERNAL MIGRATION IN TURKEY: GRAVITY MODEL RESULTS ON PROVINCES*

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1. Introduction

The fact that the direct subject of migration, which arose during every period of world history depending on different dynamics, is human beings caused migration flows to affect structures of societies profoundly. In the context of relations between human beings and space, migration is defined in the simplest form as individuals' changing places. Migration movements, which are based on social, political, geographical, economic, cultural and environmental bases with regards to their causes and effects, were differentiated depending on the period or region and made subject of research by many disciplines.

It attracts attention that studies on migration, which started with the article named "Laws of Migration" published by Ravenstein in the year of 1885, increased further with the effect of globalization that gained momentum recently. If we put forced migrations aside, particularly iniquities experienced in income distribution and regional instabilities based on social and economic reasons caused masses to spatially change places in order to lead better lives.

Whereas in Turkey, although there wasn't significant movement of migration during the first years of the Republic, internal migration movements

* This study was derived using the doctoral thesis titled "The Determinants of Internal Migration in Turkey: Gravity Model Results on Provinces" completed by the first author at Karadeniz Technical University Institute of Social Sciences.

came into prominence in 1950's and gathered great momentum in 1980's. In this sense, causes of internal migration, development plans being in the first place, became the subject of many researches. Studies done on internal migration remained quite limited in Turkey since regional data are insufficient. Access to annual migration data was enabled as of 2008 with transition to Address-Based Population Registration System and this contributed to the increase in studies regarding the subject.

In this study, we tried to specify the determinants of internal migration between provinces in Turkey in accordance with panel data analysis based on gravity model. The definition of migration and related theories concerning migration were mentioned in the first part of this study. Then, literature review was generated by referring both to national and international studies in relation with internal migration. Afterwards, internal migration movements in Turkey was generally viewed. In the last part of the study, dynamics of internal migrations in Turkey during the period after 2008 were analyzed with panel data method within the framework of gravity model and obtained findings were presented. In the conclusion part of the study, policy suggestions with regards to bringing internal migration movements in Turkey under control and to spatial redistribution of population with reference to the findings obtained within the study.

2. Theoretical Approaches Intended to Explain Migration

Georg Ravenstein, who was a German-English geographer and map expert, conducted his study called "Laws of Migration" that is recognized as the first scientific study regarding migration between years of 1885 and 1889 and led to a gradual increase in discussions concerning the subject (Abadan-Unat, 2017: 52). According to these laws, most migrants only move a short distance. Long-distance migrants migrate only to cities that are centers of attraction. On the other hand, the rural population tends to migrate more than the urban population (Ravenstein, 1885: 198-199).

Although Ravenstein's study called "Laws of Migration", which he developed to explain movements of migration in the year of 1885, explained dynamics of migration basically, it also inspired many successor studies. From that day forward, a great deal of theories was developed regarding migration by various disciplines and causes and effects of migration flows were tried to be determined. In Table 1, where migration theories suggested until today are classified as fundamental, economic and socio-economic, criticisms brought to the theories, developer(s) of the theories and main variables used in the theories may be observed.

Table 1: Theoretical Approaches Intended to Explain Migration

Fundamental Migration Theories	Developer	Main Variables	Fundamental Criticisms
Ravenstein's Laws of Migration	Ravenstein (1885), (1889)	Distance, Economic Growth	Insufficient in Explaining Complex Migration Flows
Stouffer's Intervening Opportunities Theory	Stouffer (1940)	Number of Opportunities in Target Places	It is Unclear How the Concept of Opportunity will be Measured
Everett Lee's Push-Pull Theory	Lee (1966)	Push Factors, Pull Factors, Obstacles (Distances), Personal Factors	-
Economic-Based Migration Theories	Developer	Main Variables	Fundamental Criticisms
Macro Migration Theory of Neoclassical Economy	Lewis (1954), Todaro (1969), Harris and Todaro (1970)	Wage Gaps, Income, Expected Income, Employment Probability	Individual Migrants Making Rational Preferences Approach does not Comply with Historicity. Regarding Migration only with respect to Labor Market and Regarding State only as a Regulatory Body were Criticized.
Micro Migration Theory of Neoclassical Economy	Sjaastad (1962), Borjas (1989), Todaro (1969)	Human Capital, Real Income, Expected Income, Employment Probability	-
Dual Labor Market Theory	Piore (1979)	Low Wages and Unemployment in Underdeveloped Countries, Labor Demand in Developed Countries	-
New Economic Theory of Labor Migration	Stark and Bloom (1985)	Household Income, Safe Working Opportunity, Access to Investment Capital, Long-term Risk Management	Relations Between Family Members, Connective and Separative Bonds were Ignored, and Theory is Simplified.
Socio-Economic Based Migration Theories	Developer	Main Variables	Fundamental Criticisms
World Systems and Center-Periphery Theory	Castells (1989), Sassen (1988, 1991), Moravska (1990)	Mass Labor Demand of Capital	Interest of Capital was Regarded as the Determinant of Everything and Actions and Requests of Individuals and Groups were Ignored.
Network Theory	-	Interrelations with Family, Acquaintances and Relatives	-
Migration System Theory	Mabogunje (1970)	Social and Economic Conditions, Public Policies, Transportation and Communication Infrastructure, Environmental Factors	-

Table was generated by the authors.

3. Empirical Literature

Greenwood's study carried out in the year of 1971 is the leading one of the empirical studies with regards to internal migration. Greenwood (1971) used Least Squares Method in his study he did on 16 states of India with data of 1961 in order to specify the determinants of internal migration. Greenwood (1971) determined that distance had a statistically significant and negative effect on internal migration, whereas he determined that income variable presented different results with respect to rural-urban migration. After the results obtained by Greenwood (1971), empirical studies done regarding internal migration showed an increase in many countries. It is not possible to mention a definite consensus in the results obtained from the studies carried out in many countries with different socio-economic structures. Apart from Greenwood (1971), studies in order to explain internal migration flows were done particularly Isserman et.al. (1985) on USA, Justman et.al. (1988) on Israel, Brown (1997) on Russia and Bouare (2001) on South Africa. As studies done on internal migration showed an increase particularly after 2000's, use of gravity model in internal migration studies also became prevalent after aforementioned date. Along with the development panel data techniques, Etzo (2011), Van Lottum and Marks (2012), Bunea (2012), and Jandova and Paleta (2015) used panel data analysis based on gravity model.

When Table 2, which displays the studies done on Turkey, is examined, it may be observed that studies present difference in terms of regions. It attracts attention that majority of empirical studies were done on regression analysis. It was determined that cross-sectional data analysis was performed in majority of studies that use gravity model approach.

Table 2: Studies Done on Turkey that Empirically Test Determinants of Internal Migration

Author (s)	Method	Territory	Period	Findings
Topbaş (2007)	Cross-Sectional Data Analysis	Provincial Level	1990 and 2000	Public Investment, Migration Stock, Distance, Unemployment, Income Per Capita
Filiztekin and Gökhan (2008)	Gravity Model Approach Cross-Sectional Data Analysis	Provincial Level	1990 and 2000	Income Variations, Distance, Employment, Education Period, Social Connection
Filiz (2008)	Gravity Model Approach Cross-Sectional and Panel Data Analysis	Level 2 Territory	1980, 1985, 1990 and 2000	Income, Level of Education, Health and Career Opportunities
Abar (2011)	Spatial Econometric Approach Cross-Sectional Data Analysis	Provincial Level	2009	Wage Gaps, Rate of Individuals with Privileged Features, Social Welfare, Job Opportunities, Social Network, Distance
Ercilasun et.al. (2011)	Cross-Sectional Data Analysis	Provincial Level	2010	Development Index of Education and Health Sectors, Urbanization Rate, Real Gross-Value Added, Rate of People Born in Other Cities, Migration Rate in Previous Years, Number of University Students, Average Real Wage
Uysal and Aktaş (2011)	Cross-Sectional Data Analysis	Provincial Level	2009	Rate of Literate Population, Population Growth Rate, Number of Tractors
Başar (2015)	Cross-Sectional Data Analysis	Provincial Level	2008-2009-2010-2011-2012-2013	Labor Force Participation Rate, Industrial Electricity Consumption Per Capita, Number of Schools, Number of Health Institutions, Number of Penal Institutions
Bindak (2015)	Gravity Model Approach Cross-Sectional and Panel Data Analysis	Provincial Level	2011	Distance, Population
Çatalbaş and Yazar (2015)	Panel Data Analysis	Level 2 Territory	2008-2012	Industrial Electricity Consumption Per Capita, Inflation Rate, Employment Rate, Terrorist Incidents

Doğan and Kabadayı (2015)	Panel Data Analysis	Provincial Level	2008-2012	Public Investment Per Capita, Agricultural Production Value Per Capita, Number of Firms Established, Industrial Electricity Consumption Per Capita, Number of Automobiles, Population
Yayar et.al. (2016)	Cross-Sectional Data Analysis	Provincial Level	2014	Unemployment Rate, Literate Population Rate, Population Growth Rate
Tatlı (2016)	Spatial Econometric Approach Cross-Sectional Data Analysis	Provincial Level	2014	Marriage Rate, Divorce Rate, Amount of Honey Production, High School Graduation Rate, Number of Universities
Dücan (2016)	Panel Data Analysis	Level 2 Territory	2007-2014	Level of Education, Terrorist Incidents, Employment Level
Manavgat and Saygılı (2016)	Spatial Econometric Approach Panel Data Analysis	Level 2 Territory	2008-2011	Wage Gap, Unemployment Rate, Farming Areas, Number of Vehicles
Sigeze and Ballı (2016)	Panel Data Analysis	Level 1 Territory	2008-2014	Unemployment Rate, Industrial Electricity Consumption Per Capita, Export Per Capita, Poverty Rate, Number of Graduate Students, Terror
Yüksel et.al. (2016)	Logit Model Approach Panel Data Analysis	Provincial Level	2008-2015	Divorce Rate, Literacy Rate, Suicide Rate
Albayrak and Abdioğlu (2017)	Cross-Sectional Data Analysis	Provincial Level	2015	Employment Rate, Average Income, Job Satisfaction Rate, Unemployment Rate, Education-Health Infrastructure Opportunities, Population, City Welfare
Anavatan (2017)	Spatial Econometric Approach Cross-Sectional Data Analysis	Provincial Level	2015	Farming Areas, Number of Crimes, Level of Education, House Sales, Number of Automobiles, Electricity Consumption, Number of Tourists, Export
Karagöz and Keskin (2017)	Gravity Model Approach Cross-Sectional Data Analysis	Provincial Level	2016	Population, Distance, Socio-Economic Development Level, Unemployment Rate

Tatoğlu (2017)	Ordered Logit Model Approach Panel Data Analysis	Level 1 Territory	2008-2014	Number of Universities, Marriage Rate, Number of Tractors, Number of Planes Landed and Departed, Population Growth Rate and Divorce Rate
Akarca and Tansel (2018)	Gravity Model Approach Cross-Sectional and Panel Data Analysis	Antalya and Muğla	1995 and 2000	Population, Distance, Unemployment Rate, Number of People Born in Other Cities, Number of Residences and Workplaces Greatly Damaged in 1999 Earthquake
Çetin and Çetin (2018)	Panel Data Analysis	Level 2 Territory	2008-2013	Real Income Per Capita, High School Graduation Rate, Agricultural Employment Rate, CPI
Topçu (2018)	Spatial Econometric Approach Cross-Sectional Data Analysis	Level 2 Territory	2008-2009-2010-2011-2012-2013-2014-2015-2016	Industrial Electricity Consumption Per Capita
Önder (2018)	Gravity Model Approach Panel Data Analysis	Provincial Level	2008-2017 and 2014-2017	Population, Distance, Relatives, Educational Expenses, Expenses to Provide Public Order and Security

Table was generated by the authors.

4. Development of Internal Migration in Turkey

No significant internal migration was experienced during the period between establishment of the Republic in 1923 and the year of 1950. A small amount of internal migration was realized from rural to urban and urban to urban during the period of years between 1923-1950 and these movements were generally comprised of migrations of small-scale based on usual reasons such as appointment of civil servants. Economic and sociological change in the rural area in 1950's in Turkey accelerated the migration from rural to urban. In this period agricultural mechanization and modernization started in Turkey and this situation caused the population in the villages to migrate to cities in 1950's and 1960's. (İçduygu and Sirkeci, 1999: 251).

While "push" factors remained at the forefront during of years between 1950-1960 and "pull" factors remained at the forefront during the period of years between 1960-1980, "transmitter" factors came into prominence in the period after 1980 (İçduygu and Sirkeci, 1999: 250). This situation presented

the fact that population movements, which gathered pace with the push effect of rural and with pull effect of urban, gained a new dimension with the effect of communication technologies that developed in 1990's. Besides that, particularly due to terrorist incidents experienced in Eastern and Southeastern Anatolian Regions of Turkey starting from the middle of 1980's, security problem arose in these regions and this situation caused many families to abandon the places they lived in. Therefore, terrorism factor occupied a significant place in population movements that arose in 1980's and 1990's (Hacettepe University Institute of Population Studies, 2006: 105).

Migration from rural to urban or in other words urbanization process, which comprised the majority of internal migrations within the transition from agricultural society to industrial society after the Republic of Turkey was established, started to come to an end along with 1980's. After this period, migration movements from urban to urban started to gain importance. Therefore, it would not be right approach to accept migration from rural to urban or urbanization, which was the long-term problematic of internal migration movements in Turkey during post-1980 period, as a problematic for internal migration studies (Tekeli, 1998).

**Table 3: Migrating Population by Type of Settlement in Turkey
(2010-2011)**

Settlement	Migrating Population (1000)	Migrating Population Rate (%)
Total	3,100	100.0
Urban to Urban	1,812	58.5
Urban to Rural	461	14.9
Rural to Urban	664	21.4
Rural to Rural	164	5.3

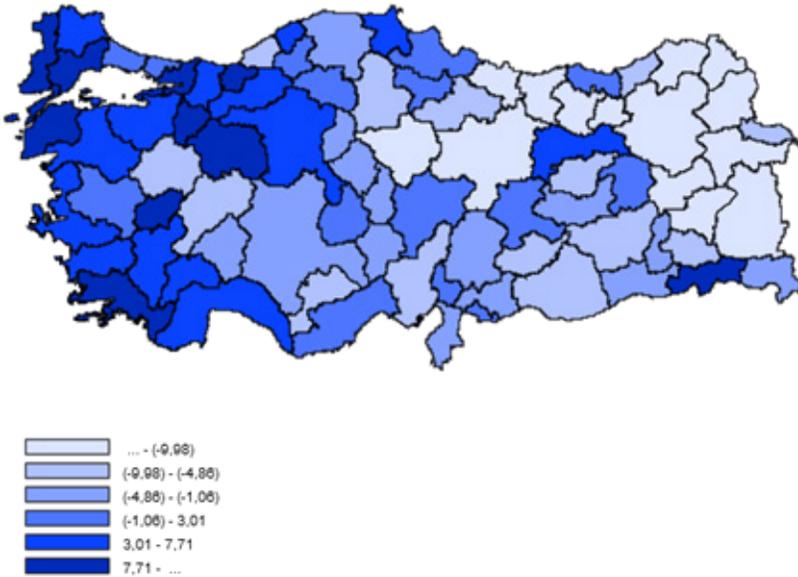
Source: (Turkish Statistical Institute, 2013).

Moreover, when Table 3, which presented the report prepared by Turkish Statistical Institute in 2011 and published in 2013 named "Population and Housing Research 2011" regarding the distribution of migrating population by type of settlement, is examined, it might be observed that the tendency of migration from urban to urban that started in 1980's increasingly continued in 2000's.

After the first population census in the year of 1927, the last population census in Turkey was carried out in the year of 2000 and Turkey proceeded to

address-based population registration system as of 2007. During the period after the transition to address-based population registration, migration movements from eastern regions to western regions in Turkey continued to take place. This situation may be observed in Map 1, which displays net migration rate in 2017. When Map 1 is examined it may clearly be seen that the cities with highest net migration rate in Turkey are all at the western side of the country.

Map 1: Net Migration Rate in Turkey ‰ (2017)



Source: (Turkish Statistical Institute).

When internal migration movements in Turkey is examined, it may be observed that majority of the country population is concentrated on the western side. However, concentration of population in specific places caused social, economic and environmental problems to arise. The state had to take some political measures in order to resolve aforementioned problems. In the beginning majority of the population migrated to the cities due to public policies that encouraged urbanization, however, this situation led greater problems to arise after a certain period of time. With the development plans drawn up, it was targeted to enable a balanced distribution of population spatially and to diminish imbalances between regions. However, the desired results in decrease of migration movements and enabling balanced distribution of population spatially were not obtained.

5. Data and Methodology

The objective of this study is to analyze determinants of internal migration in Turkey with panel data technique based on the gravity model. All 81 provinces in Turkey were taken into consideration during the analysis, however, the study was limited with the period of years between 2008-2013. The reason of limiting the analysis period to the period of years between 2008-2013 was arisen from the fact that regional data in Turkey is limited to a large extent. Since internal migration data in Turkey started to be published annually after the year of 2008 depending on Address-Based Population Registration System, the starting date of the study analysis was specified as the year of 2008. Besides this, the study had to be limited with the period the years between 2008-2013 since statistics of labor, which has a significant part both with regards to theoretical and also empirical studies in explanation of internal migration flows, were not published on provincial-level after the year of 2013.

Gravity models that would be used in the study were analyzed with panel data analysis. Whether classic model, fixed effects model or random effects model would be used for panel data method was decided with F, LM, LR and Hausman tests. Findings obtained from test results presented that it was necessary to use fixed effects estimator in the study. However, although fixed effects estimators provided consistent results in gravity model analyses, some problems may arise depending on the variables used in gravity model. While Tatoğlu (2016: 167) emphasized that time invariant variables may not be estimated by using fixed effects model and stated that random effects model shall be preferred incase time invariant variables would be added to the model to be used. Moreover, Golovko (2014: 153) emphasized that distance variable, which is the most significant variable of gravity model, and dummy variables, which are used in expanded gravity models, are excluded in fixed effects model and are not taken into consideration. In accordance with Golovko (2014: 153) using fixed effects estimator in gravity model analyses generates an important disadvantage. Therefore, it was decided to use random effects estimation method instead of fixed effects model in this study, where determinants of internal migration in Turkey at the provincial level were determined by a gravity model. Thus, the study would be able to confirm whether the distance between cities in Turkey was determinative or not with regards to internal migration movements. Beside this, the study would also be able to present statistically that in what directions common territorial borders and socio-economically metropolitan cities in Turkey, affect internal migration movements. The metropolitan cities used in the model are taken from the Ministry of Development's (2013) report,

SEGE-2011, which ranks the provinces according to their socio-economic development levels. Variables used in panel data analysis based on gravity model and resources of these variables are presented on Table 4.

Table 4: Information Regarding the Variables Used in the Study

Variables	Explanation	Resource
$\ln M_{ijt}$	Logarithm of migration from province of i to province of j	Turkish Statistical Institute
$\ln D_{ij}$	Logarithm of highway distance between province of i and j (km)	General Directorate for Highways
$\ln P_{it}$	Population logarithm of province i	Turkish Statistical Institute
$\ln P_{jt}$	Population logarithm of province j	Turkish Statistical Institute
$\ln Y_{it}$	Real GDP logarithm of province i (USA Dollars)	Turkish Statistical Institute
$\ln Y_{jt}$	Real GDP logarithm of province j (USA Dollars)	Turkish Statistical Institute
UN_{it}	Unemployment rate of province i (%)	Turkish Statistical Institute
UN_{jt}	Unemployment rate of province i (%)	Turkish Statistical Institute
EDU_{it}	Rate of graduates of high schools and equivalents within population of age 15 and above in province i (%)	Turkish Statistical Institute
EDU_{jt}	Rate of graduates of high schools and equivalents within population of age 15 and above in province i (%)	Turkish Statistical Institute
$\ln H_{it}$	Logarithm of total number of hospital beds of province i	Turkish Statistical Institute
$\ln H_{jt}$	Logarithm of total number of hospital beds of province j	Turkish Statistical Institute
$\ln SO_2_{it}$	Logarithm of amount of SO_2 in province i ($\mu g/m^3$ -Micro Gram per Cubic Meter)	Ministry of Environment and Urbanization
$\ln SO_2_{jt}$	Logarithm of amount of SO_2 in province j ($\mu g/m^3$ -Micro Gram per Cubic Meter)	Ministry of Environment and Urbanization
$\ln C_{it}$	Logarithm of the number of prisoners in penal institutions in province i	Turkish Statistical Institute

$\ln C_{jt}$	Logarithm of the number of prisoners in penal institutions in province i	Turkish Statistical Institute
IST	İSTANBUL dummy variable (Migrations that İstanbul lets in = 1, others= 0)	-
ANK	ANKARA dummy variable (Migrations that Ankara lets in = 1, others= 0)	-
IZM	İZMİR dummy variable (Migrations that İzmir lets in = 1, others= 0)	-
ANT	ANTALYA dummy variable (Migrations that Antalya lets in = 1, others= 0)	-
KOC	KOCAELİ dummy variable (Migrations that Kocaeli lets in = 1, others= 0)	-
BUR	BURSA dummy variable (Migrations that Bursa lets in = 1, others= 0)	-
COMBOR	Incase there is a common territorial border between provinces=1, in case there is no common territorial border= 0	-

5.1. Panel Gravity Model

Gravity model, which was developed with reference to Newton's law of universal gravitation, is being used quite frequently today in the field of social sciences. In accordance with Newton's law of universal gravitation, whereas gravity force between two physical bodies is directionally proportional to the multiplication of magnitudes of aforementioned two bodies, it is inversely proportional with square of the distance between two bodies. There were quite a few studies that particularly tried to explain international trade with gravity model. In accordance with this model, while counter trade flows of two countries are directly proportional with their economic magnitude, aforementioned flows are inversely proportional with their commercial costs or in other words the distance between them (Golovko, 2014: 86). Recently, gravity model became one of the most successful methods to explain bilateral commercial flows (Egger and Pfaffermayr, 2003: 571). The gravitational force between bodies i and j is presented as below in accordance with Newton's "Law of Universal Gravitation" that forms the basis of gravity model (Yotov et.al., 2016: 17);

$$F_{ij} = G \frac{M_i M_j}{D_{ij}^2} \quad (1)$$

In this formula, F_{ij} is defined as the gravity force between bodies i and j , M_i and M_j are defined respectively as masses of bodies i and j , D_{ij} is defined as the distance between two bodies and G is defined as the gravitational constant. The gravity model, which was adjusted to foreign trade flows with reference to Newton's law of gravity, was revised to explain migration flows. Greenwood (1997: 663) stated that in this model, which was called as the basic gravity model, population data shall be the indicator of magnitude. In accordance with this information, basic gravity model may be demonstrated as presented below;

$$M_{ij} = \alpha_0 \frac{P_i^{\alpha_1} P_j^{\alpha_2}}{D_{ij}^{\alpha_3}} \quad (2)$$

Here, M_{ij} presents migration flows from i to j , P_i : presents population of i , P_j : presents population of j and D_{ij} presents the distance between i and j . While α_0 presents fixed parameter, α_1 , α_2 , α_3 expresses parameters of explanatory variables. Logarithmic for of this formulation is as below;

$$\ln M_{ij} = \alpha_0 + \alpha_1 \ln P_i + \alpha_2 \ln P_j + \alpha_3 \ln D_{ij} + u_{ij} \quad (3)$$

In this model, income variable may be used instead of population as a magnitude indicator. Moreover, both population and also income variable may be added together as a magnitude indicator to this model that is called a basic gravity model.

$$\ln M_{ij} = \alpha_0 + \alpha_1 \ln P_i + \alpha_2 \ln P_j + \alpha_3 \ln Y_i + \alpha_4 \ln Y_j + \alpha_5 \ln D_{ij} + u_{ij} \quad (4)$$

It was understood that basic gravity models remained incapable as the number of studies carried out in this field increase and afterwards, aforementioned models extended by adding many variables economic ones being in the first place. Extended gravity models were generated with addition of a number of variables to basic gravity model and started to be used during 1960's in migration literature. In addition to the variables in basic gravity models, urbanization rate, climatic variables and various public expenditures may be added to the extended gravity models (Greenwood and Hunt, 2003: 28).

In this study, where data of 81 provinces is used, the data is related to the period of years between 2008-2013. Basic Gravity Model-1 of this study, where in three dimensional non nested panel data model source unit is presented as i , target unit is presented as j and period is presented as t , was set as displayed below;

$$\ln M_{ijt} = \alpha_0 + \alpha_1 \ln D_{ijt} + \alpha_2 \ln P_{it} + \alpha_3 \ln P_{jt} + u_{ijt} \quad (5)$$

Later, Basic Gravity Model-2, where basic gravity model was made stronger and where both population (P) and real GDP (Y) variables took place simultaneously as indicators of magnitude in the model, was set as displayed below;

$$\ln M_{ijt} = \alpha_0 + \alpha_1 \ln D_{ij} + \alpha_2 \ln P_{it} + \alpha_3 \ln P_{jt} + \alpha_4 \ln Y_{it} + \alpha_5 \ln Y_{jt} + u_{ijt} \quad (6)$$

Moreover, various socio-economic variables and dummy variables that Tinbergen (1962) suggested in order to explain foreign trade flows and that Greenwood and Hunt (2003) suggested in order to explain migration flows were included in the basic gravity model. In accordance with this, in order to explain migration flows between provinces in Turkey, Extended Gravity Model-1 was set by using social, economic and environmental variables and Extended Gravity Model-2 was set by adding common border and city dummy variables to aforementioned model. Extended Gravity Model-1 is as presented below;

$$\begin{aligned} \ln M_{ijt} = & \alpha_0 + \alpha_1 \ln D_{ij} + \alpha_2 \ln P_{it} + \alpha_3 \ln P_{jt} + \alpha_4 \ln Y_{it} + \alpha_5 \ln Y_{jt} + \\ & \alpha_6 \ln UN_{it} + \alpha_7 \ln UN_{jt} + \alpha_8 \ln EDU_{it} + \alpha_9 \ln EDU_{jt} + \alpha_{10} \ln H_{it} + \alpha_{11} \ln H_{jt} + \\ & \alpha_{12} \ln SO2_{it} + \alpha_{13} \ln SO2_{jt} + \alpha_{14} \ln C_{it} + \alpha_{15} \ln C_{jt} + u_{ijt} \end{aligned} \quad (7)$$

Extended Gravity Model-2, which was set by adding dummy variables to Extended Gravity Model-1, is as presented below;

$$\begin{aligned} \ln M_{ijt} = & \alpha_0 + \alpha_1 \ln D_{ij} + \alpha_2 \ln P_{it} + \alpha_3 \ln P_{jt} + \alpha_4 \ln Y_{it} + \alpha_5 \ln Y_{jt} + \\ & \alpha_6 \ln UN_{it} + \alpha_7 \ln UN_{jt} + \alpha_8 \ln EDU_{it} + \alpha_9 \ln EDU_{jt} + \alpha_{10} \ln H_{it} + \alpha_{11} \ln H_{jt} + \\ & \alpha_{12} \ln SO2_{it} + \alpha_{13} \ln SO2_{jt} + \alpha_{14} \ln C_{it} + \alpha_{15} \ln C_{jt} + \alpha_{16} \ln IST + \\ & \alpha_{17} \ln ANK + \alpha_{18} \ln IZM + \alpha_{19} \ln ANT + \alpha_{20} \ln KOC + \alpha_{21} \ln BUR + \\ & \alpha_{22} \ln COMBOR + u_{ijt} \end{aligned} \quad (8)$$

6. Empirical Findings

Robust estimators were used in panel data analysis of the study. Because, transformation of gravity model to linear logarithmic form may change the quality of error term. Therefore, in order to remove problems of heteroscedasticity and autocorrelation that may arise in analysis of the models used in the study, random effects estimation based on “robust” standard errors was carried out. Estimation results of random effects model with robust standard errors included in Basic Gravity Model-1, where there was only population variable as magnitude indicator, Basic Gravity Model-2, where GDP was also included along with population, Extended Gravity Model-1, where socio-economic factors are included, and Extended Gravity Model-2, which is the final model where dummy variables are also included, are presented on Table 5.

Table 5: Estimation Results of Random Effects Model with Robust Standard Errors for All Provinces

	Basic Gravity Model-1	Basic Gravity Model -2	Extended Gravity Model-1	Extended Gravity Model-2
lnD _{ij}	-0.667*** (-40.13)	-0.663*** (-40.28)	-0.650*** (-39.47)	-0.338*** (-22.30)
lnP _{it}	0.920*** (94.31)	1.092*** (49.04)	0.965*** (31.02)	0.936*** (32.39)
lnP _{jt}	0.944*** (93.66)	0.541*** (24.38)	0.563*** (17.42)	0.523*** (17.43)
lnY _{it}		-0.155*** (-7.98)	-0.117*** (-4.91)	-0.078*** (-3.48)
lnY _{jt}		0.368*** (18.77)	0.332*** (13.88)	0.256*** (10.93)
UN _{it}			0.002** (2.47)	0.001** (2.09)
UN _{jt}			0.0009 (1.13)	0.0004 (0.55)
EDU _{it}			0.021*** (10.71)	0.023*** (12.42)
EDU _{jt}			0.038*** (18.40)	0.034*** (17.47)
lnH _{it}			0.018 (0.96)	0.009 (0.52)
lnH _{jt}			-0.050*** (-2.63)	-0.024 (-1.34)
lnSO2 _{it}			0.020*** (5.12)	0.020*** (4.97)
lnSO2 _{jt}			0.015*** (3.62)	0.015*** (3.70)
lnC _{it}			0.037*** (5.40)	0.027*** (3.95)
lnC _{jt}			0.036*** (5.06)	0.045*** (6.47)
COMBOR				1.415*** (32.84)
IST				0.882*** (9.15)
ANK				0.369*** (4.99)
ANT				0.555*** (10.44)
BUR				0.276*** (3.12)
IZM				0.357*** (5.02)
KOC				0.266*** (2.94)
Constant	-15.70*** (-70.22)	-15.93*** (-72.08)	-16.22*** (-55.59)	-16.95*** (-60.87)
Observ.	38,841	38,841	38,841	38,841
R ²	0.76	0.77	0.78	0.82
Wald (χ ²)	24577.83	26892.28	28992.04	33630.41
Prob> χ ²	(0.000)	(0.000)	(0.000)	(0.000)

Z statistics that is calculated with robust standard errors were used in model analysis. Z statistics are presented parenthetically. *** and ** signs express 1% and 5% significance level respectively.

R² value in the models is 0.76 for Basic Gravity Model 1; 0.77 for Basic Gravity Model 2; 0.78 for Extended Gravity Model-1 and 0.82 for Extended Gravity Model-2. It attracts attention that the biggest explanatory power of independent variables for dependent variable is observed in Extended Gravity Model-2, which includes social, economic, environmental and dummy variables. In accordance with probability value of Wald Test statistic, which tests significance of the whole model, all models used in the study are significant in general.

In accordance with Table 5, which displays estimation results of random effects model with robust standard errors for all the provinces, in all the gravity models distance variable has a statistically significant and negative effect on internal migrations in accordance with theoretical expectations of gravity models. Moreover, in all the models, population in source and target provinces have a positive effect on internal migrations in accordance with the expectations. Population variable, which was added as magnitude indicator to the gravity model, affects migration movements from province *i* to province *j* positively depending on both push and pull factors as also stated by Lewer and Van den Berg (2008).

On the other hand, coefficient of real GDP variable, which displays provinces' economic size, income and wage differences, differentiates depending on source and target provinces. When all the models are examined, it may be understood that the increase in the income level at the source province decreases internal migration movements, whereas the increase in the income level at the target province increases internal migration movements. These results are compatible with the results obtained by Greenwood (1971), Etzo (2011), Aldashev and Dietz (2011), Manavgat and Saygılı (2016).

Unemployment variable, which is included in extended gravity models, has statistically significant and positive effect in source province on both models. This situation demonstrates that any increase in unemployment rate will also increase migration movements from source province to other provinces. However, unemployment rates in target provinces do not have statistically significant effect on internal migration movements on both of extended gravity models. This situation is closely related with the mainly high unemployment rates at metropolitans that let in migration in Turkey. Although unemployment rate of western provinces, which are center of attraction, is quite high, the fact that the possibility of finding a job is also quite high increases immigration to these regions. Similarly, Çetin and Çetin (2018) stated in their study they carried out in Turkey at regional level that unemployment rate does not have statistically significant effect on let in immigrants.

Rates of graduates from high schools and equivalents variable in extended gravity models has statistically significant and positive effects on internal migration both with regards to source province and also to target province. This situation presents that increase in educational level in a province increases internal migration movements. This result is similar to the results of Tatlı (2016), Sigeze and Ballı (2016), Dücan (2016), Anavatan (2017) and Çetin and Çetin (2018).

The effect of total number of hospital beds variable, which was used to represent health care services and facilities, on internal migration movements differs by Extended Gravity Model-1 and Extended Gravity Model-2. The effect of number of hospital beds on internal migration movements at source province was found statistically insignificant in both of the models the variables used. Moreover, on Extended Gravity Model-2 that dummy variables are included, the effect of number of hospital beds on internal migration is also statistically insignificant. This situation demonstrates that individuals included in internal migration do not take health care services nor facilities into consideration. These findings are in line with the studies of Doğan and Kabadayı (2015) and Çetin and Çetin (2018).

Amount of SO_2 , which is included in the model to represent air pollution, has statistically significant and positive effect on migration on both of extended models. In accordance with obtained estimation results, the increase in amount of SO_2 in source province, increases migration movements towards the target province. This situation corresponds with theoretical expectations. Moreover, in accordance with theoretical expectations, it is anticipated that the increase in the amount of SO_2 in the target province will also decrease migration to that province. However, findings obtained present that the increase air pollution at target province also increases migration to these regions. This situation is caused by the fact that migrants take many factors other than air pollution in the centers of attraction that they want to migrate to. In actual fact, this is closely related to the relationship between economic growth and environmental pollution. Because, as Grossman and Krueger (1991) stated, economic growth and environmental pollution move in parallel with each other until a certain level of economic growth is reached. And since migrants care more about economic concerns, they continue to migrate to metropolitans in spite of air pollution.

Number of prisoners in penal institutions is used in extended gravity models to represent number of committed crimes, unrest and state of security. As the number of prisoners in penal institutions in a province increases, it is anticipated that migration from that province to other provinces will also increase. In both

of extended models, as the number of prisoners in penal institutions increase at source province, migration movements from that province to others also increase. As it may be seen in the study of Anavatan (2017), parameter coefficients are statistically significant and positive in accordance with expectations. However, while it is expected for migration movements to decrease at target provinces as the number of prisoners in penal institutions increase, as it is stated in the study of Başar (2015), obtained parameter coefficients statistically significant but positive as opposed to what was expected. This situation presents that economic opportunities at places individuals migrate to is more effective on internal migration movements than security concerns.

Parameter coefficients of common border variable, which is one of the dummy variables used in Extended Gravity Model-2 that is the final model, is statistically significant and has a positive effect on internal migration movements in accordance with expectations. This situation demonstrates that while migrating from one province to another, migrants pay attention to whether these two provinces have a common border or not. Therefore, migrants migrate much more to provinces that have common border with their own provinces. This result supports the findings of Zhang (2016). Moreover, all of İstanbul, Ankara, Antalya, Bursa, İzmir and Kocaeli variables, which are dummy variables included in the final Extended Gravity Model-2, has statistically significant and positive effects on internal migration movements. This result reveals that provinces, which are centers of attention, are effective on migration decisions of migrants.

7. Conclusion

Results of panel gravity model analysis carried out for all provinces demonstrate that determinants of internal migration in Turkey at provincial level are *distance, population, real GDP, unemployment rate, graduate rate from high schools or equivalents, amount of SO₂, number of prisoners in penal institutions* variables and *common border, İstanbul, Ankara, Antalya, Bursa, İzmir and Kocaeli* dummy variables. Although *unemployment rate, amount of SO₂ and number of prisoners in penal institutions* at the target province is not compatible with theoretical expectations, they are still determinants of internal migration depending on different dynamics. Moreover, it is also proven that the gravity model used in this study for internal migration provided successful results.

In this study it is concluded that individuals move towards centers of attraction in the western side of the country particularly due to economic motives

and that this situation leads to imbalanced distribution of population spatially. Individuals, who are migrating from regions with low level of socio-economic development to western regions of the country, act with economic concerns and migrate to metropolitans depending on the pull effect. Pull effect on migrants is so dominant that, push factors such as air pollution and increase in the number of crimes are ignored. Concentration of population in certain regions of the country due to the pull effect brings along quite a few other problems. Therefore, it is necessary to develop policies to enable spatially balanced distribution of population in Turkey. In accordance with the results obtained in this study, it is suggested that policy measures stated below should be taken with regards to internal migration movements:

- Gradual centers of population and regional centers of attraction shall be established by taking the fact that population is not spatially distributed in balance in Turkey into consideration. Thus, concentration of population in certain regions of the country shall be forestalled. Although internal migration flows will not be removed permanently, by means of this policy, severity of migration to the developed regions of the country will be able to be reduced.
- Imbalance between regions has a big effect on the increase of migration movements in Turkey. Public investments and incentives shall spread to all regions of the country and underdeveloped regions shall even be given priority. Thus, immigration from these regions shall be forestalled by increasing economic activities in these regions.
- It is obvious that the main reasons of migration movements in Turkey are wage and income difference and even that push factors are not able to decrease migration due to economic concerns. Therefore, a different minimum wage policy that will be carried out in underdeveloped regions may be put into practice to decrease migration movements to developed regions. In case a higher minimum wage policy will be developed for underdeveloped regions when compared to developed regions, then migration to metropolitans may be decreased and also people may return from metropolitans to underdeveloped regions.
- Increases in crime rates and environmental problems might increase population movements depending on the object of raising quality and standards of life. In this sense, it is necessary for the government to attach importance to policies that decrease air and environmental pollution, that

decrease crime rates, that increase security measures and that remove unrest in the cities. In case what mentioned above is enabled, the severity of migration flows that migrants perform due to push factors will also decrease.

- Moreover, high level of urbanization occurred in Turkey due to the imbalance of spatial distribution. As a consequence, problems in cities such as infrastructure, housing and unemployment are gradually increasing. Resolving aforementioned problems grow difficult after a certain level. Therefore, in order for the government not to be confronted with such problems arising from internal migration movements, it would be beneficial to develop policies before these population movements take place.

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CHAPTER IX

COMPARISON OF OBJECTIVE CRITERION WEIGHTING METHODS: A REAL-LIFE APPLICATION

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1. Introduction

Multiple-criteria decision-making (MCDM) methods assist decision makers in the selection process of the most suitable option among multiple criteria and alternatives. The three most important elements needed to use MCDM techniques are alternatives, criteria and criterion weights. The weights of the criteria are a crucial part of the MCDM methods. Therefore, the development of existing methods for designating the criteria weights and the introduction of new methods are of great theoretical and practical importance (Zavadskas and Podvezko, 2016: 2).

The evaluation process of MCDM approaches consists of four steps: (i) determination of alternatives and criteria, (ii) determination of criterion weights, (iii) determination of performance scores of each alternative (iv) ranking of alternatives according to their performance (Keshavarz-Ghorabae et al., 2021: 2)

This study focuses on the criterion weighting phase of MCDM methods. The criterion weights basically show the importance of the criteria and there are many studies (Zavadskas and Podvezko, 2016; Alemi-Ardakani et al. 2016; Kumar and Parimala, 2019) that prove the effect of criterion weights on the results. According to Tervonen et al. (2009), determining criterion weights in a MCDM approach is the one of the most difficult tasks. The basic purpose of the weighting is to reveal their relative importance by adding basic or ordinal values to different criteria in a MCDM problem (Zardari et al. 2015: 23).

The methods developed in the literature for weighting the criteria are categorized in three different categories as subjective, objective and integrated. In objective methods, the weighting is done using only the decision matrix elements, without the need for the decision makers' decisions while in subjective methods, the degree of importance of the criteria is determined according to the preferences and judgments of the decision makers. In integrated methods, weighting is made by using decision makers' decisions and decision matrix data together (Wang and Luo, 2010: 1). While methods such as "Simple Multi-Attribute Rating Technique" (SMART), "Analytic Hierarchy Process" (AHP), DELPHI are the examples of subjective methods, techniques such as "multiplication synthesis", "optimal weighting based on sum of squares", "optimal weighting based on minimum" are the examples of combined weighting methods.

Objective weighting methods enable the determination of criterion weights by using mathematical models. However, the subjective judgments of the decision maker are not taken into account (Zoraghi et al. 2013: 3). Methods such as Entropy (Wu et al., 2011), "CRiteria Importance Through Inter-criteria Correlation" (CRITIC) (Diakoulaki et al., 1995), Standard Deviation (SD), and their modifications (Jahan et al., 2012; Žižović et al., 2020; Alosta et al., 2021) (Mukhametzyanov, 2021: 77) are in this category. Another objective weighting method is the "METHod based on the Removal Effects of Criteria" (MEREC) (Keshavarz-Ghorabae et al. 2021), which was introduced in recent years. Although weighting techniques have different advantages and disadvantages, studies show that objective weighting methods are more advantageous than subjective weighting methods (Deepa et al., 2019). The subjective judgments of the decision makers may change in subjective weighting methods, that's why the knowledge of the decision makers may not be sufficient and erroneous decisions may be taken.

In the literature, besides the studies using the subjective weighting techniques (Hossain and Thakur, 2020; Das et al. 2021; Cheng et al. 2020), there are also studies using integrated methods (Liu et al. 2020; Du et al. 2020; Nyimbili and Erden, 2020). On the other hand, there are many studies in the literature using objective weighting methods. Zavadskas and Podvezko (2016) compared Entropy, "Criterion Impact LOSs" (CILOS) and "Integrated Determination of Objective CRiteria Weights" (IDOCRIW) methods. At the end of the study, it was determined that the order of importance of the criteria obtained with Entropy and IDOCRIW was the same, and the order obtained with CILOS was different from the others. Keshavarz-Ghorabae et al. (2021) proposed the MEREC method to specify the criteria weights. The results

obtained with MEREC were compared with Entropy, CRITIC and SD methods. The results obtained with four methods were different. Mukhametzyanov (2021) compared objective criteria weighting methods. It was concluded that the results obtained with the Entropy, CRITIC and SD methods were different. Sařabun et al. (2020) compared some of the common PTCT methods based on a simulation-based analysis. The “Technique for Order of Preference by Similarity to Ideal Solution” (TOPSIS), “VlseKriterijuska Optimizacija. I Komoromisno Resenje” (VIKOR), “complex proportional assessment”(COPRAS) and “Preference Ranking Organization Method for Enrichment Evaluation” (PROMETHEE) II methods were used to perform the analysis. They also used different weighting techniques, including Equal Weighting (EW), Entropy, and SD. It was concluded that the EW method is less suitable for weighting than the Entropy and SD methods. They also found that using the Entropy weighting method resulted in smaller changes in the correlation between the rankings. Sahin (2020) handled the material selection problem in the process of designing a product using “Grey Relational Analysis” (GRA), TOPSIS and “Organization, Rangement Et Synthese De Donnes Relationnelles” (ORESTE) methods. They preferred SD and CRITIC methods to weight the criteria. Based on these methods, six approaches have been proposed, namely SD-GRA, SD-TOPSIS, SD-ORESTE, CRITIC-GRA, CRITIC-TOPSIS, and CRITIC-ORESTE. The proposed approaches were rationalized using the Copeland method.

In this study, a real life application is discussed and the environmental sustainability performance of EnerjiSA is evaluated on the basis of seven criteria. EnerjiSA Energy, which was founded in 1996 to meet the energy needs of Sabancı Holding companies, published its first sustainability report in 2019. In 2020, the Gold Award was given to the first sustainability report at the LACP INSPIRE 2019 Awards (<https://www.enerjisa.com.tr/en/about-enerjisa/company-profile/history>). Entropy, CRITIC and MEREC objective methods were used to weight the criteria and the obtained results were compared. The Entropy-CRITIC-MEREC model proposed in this study is discussed together for the first time. Different advantageous aspects of three different weighting techniques were utilized and the results obtained with three different techniques were compared. In this respect, it is thought that this study will fill the gap in the literature.

The study is organized as follows. In Section 2, information about the objective MCDM techniques used in the study is given. In Section 3, the application part is given. In the last section, the obtained results are evaluated.

2. Material and Method

2.1. Material

The first step for the application of MCDM methods is the creation of the decision matrix. The most important elements in the decision matrix are criteria and alternatives. In this study, environmental sustainability performance of EnerjiSA was measured for the 2017-2020 periods. The alternatives of the study are the four years (2017-2020) included in the study. The criteria, on the other hand, consist of 7 indicators that reflect the company's environmental sustainability and are obtained from the company's sustainability reports. The criteria of the study are given in Table 1.

Table 1: Environmental Sustainability Criteria

Code	Criteria	Opt.	Unit
EN1	Total Energy Consumption	min	MWh
EN2	Total GHG Emissions, Scope1+2	min	Million Tco2eq.
EN3	Direct GHG Emissions, Scope 1	min	Million Tco2eq.
EN4	Total Water Consumption	min	Million m3
EN5	Total waste	min	Million ton
EN6	Hazardous Waste	min	Million ton
EN7	Recycled Waste	max	Million ton

2.2. Method

In this section objective weighting methods such as Entropy, CRITIC and MEREC are explained.

2.2.1. Entropy Method

Entropy is an objective method used to designate the importance of each criterion. The steps of the method are as follows (Wang and Lee, 2009: 8982):

Step 1: The decision matrix elements are normalized using equation (1).

$$P_{ij} = \frac{x_{ij}}{\sum_{i=1}^m x_{ij}} \quad (1)$$

Step 2: The Entropy value for each units is calculated using equation (2).

$$e_j = -k \sum P_{ij} \ln P_{ij, v_i} \quad (2)$$

where

$$k = (\ln(n))^{-1}$$

n indicates the number of alternatives.

Step 3: The degree of differentiation of the criteria is found with the help of equation (3).

$$d_j = 1 - e_j, \forall_j \tag{3}$$

d_i shows the degree of differentiation. The more the d_i is, the more significant the criterion j th is.

Step 4: The normalized weight values for each criterion are found with the help of equation (4).

$$w_j = \frac{d_j}{\sum_{k=1}^n d_k} \forall_i \tag{4}$$

w_j shows the weight of criterion.

2.2.2. CRITIC Method

The CRITIC method was proposed by Diakoulaki et al. (1995) and is based on standard deviation. In this method, while designating the criteria weights, the correlation between the criteria is taken into account as well as the standard deviation of the criteria (Wang and Luo, 2010: 8). The algorithm of the method is given below (Diakoulaki et al. 1995: 764-765; Jahan et al., 2012: 413):

Step 1: Normalizing the Decision Matrix

Decision matrix elements are normalized using equations 5 and 6.

$$r_{ij} = \frac{x_{ij} - x_j^{\min}}{x_j^{\max} - x_j^{\min}} \quad \text{benefit criterion} \tag{5}$$

$$r_{ij} = \frac{x_j^{\max} - x_{ij}}{x_j^{\max} - x_j^{\min}} \quad \text{cost criterion} \tag{6}$$

$$i = 1, \dots, m \quad j = 1, \dots, n$$

x_j^{\max} : refers to the best performance of the criterion j .

x_j^{\min} : refers to the worst performance of the criterion j .

Step 2: Calculation of Correlation Coefficients

Linear correlation coefficients (ρ_{jk}) are calculated using equation 3 for measuring the degree of relationship between the evaluation criteria,

$$\rho_{jk} = \frac{\sum_{i=1}^m (x_{ij} - \bar{r}_j)(x_{ik} - \bar{r}_k)}{\sqrt{\sum_{i=1}^m (x_{ij} - \bar{r}_j)^2 \sum_{i=1}^m (x_{ik} - \bar{r}_k)^2}} \quad j, k = 1, \dots, n \tag{7}$$

Step 3: Calculation of Total Information (C_j) and Standard Deviation (σ_j) Values

The total information and the standard deviation are calculated using equation 8 and 9, respectively.

$$C_j = \sigma_j \sum_{k=1}^n (1 - \rho_{jk}) \tag{8}$$

$$\sigma_j = \sqrt{\frac{\sum_{i=1}^m (r_{ij} - r_j)^2}{m}} \tag{9}$$

Step 4: Calculation of Criterion Weights (w_j)

The criteria weights are calculated using equation 10.

$$w_j = \frac{c_j}{\sum_{j=1}^n c_j} \quad (j = 1, 2, \dots, n) \tag{10}$$

2.2.3. MEREC Method

MEREC is included in the category of objective weighting methods used to determine the importance levels of criteria. MEREC uses the lifting effect of criteria on the performance of alternatives to specify criterion weights. Larger weights are assigned to criteria that have a greater impact on performance (Keshavarz-Ghorabae et al. 2021: 7). The steps of the MEREC method are given below (Keshavarz-Ghorabae et al. 2021: 8-9):

Step 1: Creating the decision matrix

$$X = \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1j} & \dots & x_{1m} \\ x_{21} & x_{22} & \dots & x_{2j} & \dots & x_{2m} \\ \vdots & \vdots & \ddots & \vdots & \ddots & \vdots \\ x_{i1} & x_{i2} & \dots & x_{ij} & \dots & x_{im} \\ \vdots & \vdots & \ddots & \vdots & \ddots & \vdots \\ x_{n1} & x_{n2} & \dots & x_{nj} & \dots & x_{nm} \end{bmatrix}$$

x_{ij} represents the elements of the matrix.
 n represents alternatives and m represents criteria.

Step 2: Normalizing the decision matrix

In this step, a simple linear normalization is used to normalize the decision matrix elements.

$$n_{ij}^x = \begin{cases} \frac{\min_k x_{ij}}{x_{ij}} & \text{For useful criteria} & (11) \\ \frac{x_{ij}}{\max_k x_{kj}} & \text{For non-useful criteria} & (12) \end{cases}$$

n_{ij}^x expresses the normalized decision matrix elements. B shows the useful criteria; H shows the non-useful criteria.

Step 3: The overall performance of the alternatives (Si) is calculated.

In this step, a logarithmic measure with a nonlinear function is applied to calculate the overall performance of the alternatives. This calculation is done using the equation 13.

$$S_i = \ln\left(1 + \left(\frac{1}{m} \sum_j | \ln(n_{ij}^x) | \right)\right) \tag{13}$$

Step 4: The performance of the alternatives is calculated by removing each criterion.

In this step, the logarithmic measure is used similarly to the previous step. The overall performance of alternative i regarding the removal of criterion j is denoted by S'_{ij} . The equation 14 is used for the calculation.

$$S'_{ij} = \ln\left(1 + \left(\frac{1}{m} \sum_{k, k \neq j} | \ln(n_{ik}^x) | \right)\right) \tag{14}$$

Step 5: The sum of the absolute deviations is calculated.

In this step, the lifting effect of criterion j is calculated based on the values obtained from Step 3 and Step 4. E_j shows the effect of removing the j_{th} criterion. E_j values are calculated using the equation 15.

$$E_j = \sum_i | S'_{ij} - S_i | \tag{15}$$

Step 6: The final weights of the criteria are determined.

In this step, the objective criteria weights (w_j) are calculated using the equation 16.

$$w_j = \frac{E_j}{\sum_k E_k} \tag{16}$$

w_j represents the weight of the j_{th} criterion.

3. The Research Findings

This study aimed to compare the results obtained with objective criterion weighting methods. A real life application is discussed and the environmental sustainability performance of EnerjiSA company for the period of 2017-2020 is evaluated. Criterion weights were designated using the objective methods such as Entropy, CRITIC and MEREC, and the importance level of the criteria that had an effect on EnerjiSA's performance was determined. The first step to analyze with MCDM methods is the creation of the decision matrix (Table 2).

Table 2: Decision Matrix

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
2017	117.144	36.236,0	25.651,6	70.000	21.570	7.570	14.000
2018	124.195	37.772,0	28.205,7	97.182	21.818	11.118	11.118
2019	128.560	39.804,3	29.850,7	101.000	12.238	6.675	6.675
2020	125.305	23.443,7	44.482,0	98.654	12.649	3.922	12.607

3.1. Determination of criterion weights with the Entropy method

As a first step to specify the criterion weights with the Entropy method, the decision matrix elements were normalized using equation 1 (Table 3). Then, Entropy measures and degrees of difference were calculated using equations 2 and 3. In the last step, criterion weights were calculated using equation 4. The results are given in Table 4.

Table 3: Normalized Decision Matrix

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
2017	0,237	0,264	0,200	0,191	0,316	0,259	0,315
2018	0,251	0,275	0,220	0,265	0,32	0,380	0,250
2019	0,26	0,29	0,233	0,275	0,179	0,228	0,150
2020	0,253	0,171	0,347	0,269	0,185	0,134	0,284

Table 4: e_j , d_j and w_j Values

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
e_j	0,9996	0,9864	0,9823	0,9928	0,9731	0,9549	0,9760
d_j	0,0004	0,0136	0,0177	0,0072	0,0269	0,0452	0,0240
w_j	0,003	0,1004	0,1315	0,0535	0,1991	0,3346	0,1779

3.2. Determination of criterion weights with the CRITIC method

Similar to other MCDM methods, in the first step of the CRITIC method, the decision matrix elements are normalized using equations 5 and 6 (Table 5). Then, linear correlation coefficients were calculated using equation 7 (Table 6). The total information, SD values and criterion weights were calculated using equations 8, 9 and 10 (Table 7).

Table 5: Normalized Decision Matrix

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
2017	1	0,218	1	1	0,026	0,493	1
2018	0,382	0,124	0,864	0,123	0	0	0,607
2019	0	0	0,777	0	1	0,617	0
2020	0,285	1	0	0,076	0,957	1	0,810

Table 6: Linear Correlation Coefficient Table

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
EN1	1	-0,015	0,404	0,959	-0,749	-0,195	0,831
EN2	-0,015	1	-0,92	-0,146	0,393	0,714	0,497
EN3	0,404	-0,92	1	0,497	-0,673	-0,756	-0,122
EN4	0,959	-0,146	0,497	1	-0,631	-0,11	0,674
EN5	-0,749	0,393	-0,673	-0,631	1	0,783	-0,547
EN6	-0,195	0,714	-0,756	-0,11	0,783	1	0,052
EN7	0,8313	0,497	-0,122	0,674	-0,547	0,052	1

Table 7: C_j , σ_j , and w_j Values

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
C_j	3,172	3,500	5,571	2,967	5,632	3,508	2,594
σ	0,666	0,639	0,736	0,624	0,759	0,637	0,562
w_j	0,118	0,130	0,207	0,110	0,209	0,130	0,096

3.3. Determination of criterion weights with the MEREC method

As a first step, in order to calculate the criterion weights with the MEREC method, the decision matrix was normalized using equations 11 and 12 (Table 8).

Table 8: Normalized Decision Matrix

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
2017	0,911	0,910	0,577	0,693	0,989	0,681	0,477
2018	0,966	0,949	0,634	0,962	1	1	0,600
2019	1	1	0,671	1	0,561	0,600	1
2020	0,975	0,589	1	0,977	0,580	0,353	0,530

In the second step, the overall performances of the alternatives are obtained by the decision makers. These values were calculated using equation 13:

$$S_1 = h\lambda(1 + (\frac{1}{7}(|h\lambda(0,9112)| + |h\lambda(0,9104)| + |h\lambda(0,577)| + |h\lambda(0,693)| + |h\lambda(0,9886)| + |h\lambda(0,6809)| + |h\lambda(0,4768)|))) = 0,278$$

$$S_2 = h\lambda(1 + (\frac{1}{7}(|h\lambda(0,966)| + |h\lambda(0,9489)| + |h\lambda(0,634)| + |h\lambda(0,962)| + |h\lambda(1)| + |h\lambda(1)| + |h\lambda(0,6004)|))) = 0,145$$

$$S_3 = h\lambda(1 + (\frac{1}{7}(|h\lambda(1)| + |h\lambda(1)| + |h\lambda(0,671)| + |h\lambda(1)| + |h\lambda(0,5609)| + |h\lambda(0,6004)| + |h\lambda(1)|))) = 0,193$$

$$S_4 = h\lambda(1 + (\frac{1}{7}(|h\lambda(0,9747)| + |h\lambda(0,589)| + |h\lambda(1)| + |h\lambda(0,977)| + |h\lambda(0,5798)| + |h\lambda(0,3528)| + |h\lambda(0,5295)|))) = 0,337$$

In the fourth step, the decision makers calculate the overall performances of the alternatives using equation 14. The results are given in Table 9.

Table 9: The Values of S_{ij}

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
2017	0,268	0,267	0,216	0,237	0,276	0,235	0,194
2018	0,141	0,138	0,087	0,140	0,145	0,145	0,080
2019	0,193	0,193	0,145	0,193	0,122	0,131	0,193
2020	0,334	0,281	0,337	0,334	0,279	0,224	0,270

In the fifth step, using equation 15, the decision makers calculate the lifting effect of each criterion on the overall performance of the alternatives. These values are determined as in Table 10.

Table 10: E_j Values

EN1	EN2	EN3	EN4	EN5	EN6	EN7
0,017	0,072	0,168	0,048	0,129	0,217	0,216

In the last step, the criterion weights were calculated using equation 16. The results are presented in Table 11.

Table 11: Criteria Weights

	EN1	EN2	EN3	EN4	EN5	EN6	EN7
w _j	0,020	0,083	0,193	0,055	0,149	0,250	0,249

The criteria weights obtained with Entropy, CRITIC and MEREC methods are presented in Table 12.

Table 12: Criteria Weights Obtained with Entropy, CRITIC and MEREC Methods

	Entropy			CRITIC			MEREC		
	w_j	%	rank	w_j	%	rank	w_j	%	rank
EN1	0,003	0,3	7	0,118	11,8	5	0,0196	1,96	7
EN2	0,1004	10	5	0,13	12,99	4	0,0834	8,34	5
EN3	0,1315	13,1	4	0,207	20,7	2	0,1934	19,3	3
EN4	0,0535	5,35	6	0,11	11	6	0,055	5,5	6
EN5	0,1991	19,9	2	0,209	20,9	1	0,149	14,9	4
EN6	0,3346	33,5	1	0,13	13,01	3	0,2504	25	1
EN7	0,1779	17,8	3	0,096	9,63	7	0,2491	24,9	2

According to the results in Table 12, the criteria weights obtained by three different methods are different from each other. According to the results obtained with the Entropy and MEREC method, the criterion with the highest importance is EN6 (hazardous waste), and the least important criterion is EN1 (total energy consumption). According to the results obtained with the CRITIC method, while EN5 (total waste) has the highest degree of importance, EN7 (recycled waste) has been determined as the least important criterion. While the results obtained with Entropy and MEREC are close to each other, the results obtained with CRITIC are quite different.

The criteria weights obtained by objective methods can be different from each other. In this study, the results obtained by Entropy, CRITIC and MEREC methods are different from each other. This result is supported by many studies (Zavadskas and Podvezko, 2016; Keshavarz-Ghorabae et al. 2021; Mukhametzhanov, 2021; Sałabun et al. 2020). The results obtained in this study support the results of the above studies.

4. Conclusion and Recommendations

The criterion weighting phase is an important part of MCDM techniques and the criterion weights have an impact on the results. In this study, it is aimed to compare the results obtained with objective criterion weighting methods. Starting from a real-life application, the importance levels of the criteria that are effective in the environmental sustainability performance of EnerjiSA company for the 2017-2020 period were calculated. The criterion weights were determined using the objective methods Entropy, CRITIC and MEREC.

At the end of the study, it was determined that the criteria weights obtained by Entropy, CRITIC and MEREC methods were quite different from each other. When the importance levels of the criteria are ranked, the ranking obtained by the Entropy and MEREC method is close to each other, while the ranking obtained by the CRITIC method is quite different. As mentioned before, in many studies in the literature, the results obtained by different objective weighting methods were different from each other. In future studies, the results can be compared using objective and subjective criteria weighting methods. The similar model can be reconsidered by changing the data set.

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CHAPTER X

MODERATOR ROLE OF TENURE IN THE RELATIONSHIP BETWEEN RESPONSIBLE LEADERSHIP AND PERSON-ORGANIZATION FIT

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1. Introduction

Today's enterprises are regarded as a social entity that undertakes the results of their actions, rather than just an economic entity that seeks profit. Enterprises cannot act independently of their external environment. Therefore, the expectations and needs of the external environment elements are also included in the managerial strategies. Their leadership styles also undergo changes as well as their managerial strategies. In this respect, leadership keeps up-to-date as a concept that is constantly researched, discussed and reshaped according to needs in terms of business management from past to present. Suppliers, customers, competitors, society and legal regulations are considered external stakeholders while employees are internal stakeholders. In short, enterprises have to take into account the expectations and needs of their internal and external stakeholders in order to maintain their sustainability. This perspective refers to stakeholder theory on which research is based. The welfare of the enterprise can be increased as long as it contributes to the welfare of all stakeholders. Managers and leaders take part in the implementation of strategies that determine the welfare level of enterprises. This research alleges that the efforts to improve the welfare level of stakeholders and enterprises will be able to obtain result by attaching importance to responsible leadership. Furthermore, it is aimed to introduce responsible leadership, which does not find much research

area in the national literature, and to examine the effect of internal stakeholders, who are defined as employees, on person-organization fit with the regulatory role of professional experience.

2. Responsible Leadership

Leadership is also a process that takes on different qualities in terms of its responsibilities and is reshaped according to the requirements of the age. Responsible leadership is a function that aims to show awareness to social needs and problems and helps enterprises implement their strategies. Responsible leadership has a broad perspective, focuses on the satisfaction of the whole environment from employees to society, and it takes its basis from the “Stakeholder Theory” (Shi and Ye, 2016). At this point, it continues to be stakeholder-oriented as a product of a relation which is based upon trust and moral rules (Özkan, 2022). According to Voegtlin (2011), responsible leadership is “a democratic process that resolves the conflicts for the benefit of all, taking into account all of the stakeholders of the enterprises, enables to merge under common view, and offers equal conditions to all”.

Responsible leadership is the managerial skill that enables the implementation of managerial strategies, is able to establish a vision in which all stakeholders have a say, is based on trust, makes available to responsibility-based activities and the implementation of these activities (Maak, 2007). It differs from today’s leadership approaches in terms of thinking about a wider environment, increasing responsibilities and creating change since it is stakeholder-oriented (Doh and Quigley, 2014; Miska and Mendenhall, 2015).

Responsible leadership that pays attention to the welfare of all stakeholders advocates the values that are not indifferent to social problems, such as environmental pollution, rapid depletion of natural resources, unjust income distribution, population growth, and desire to bring socio-economic conditions to an acceptable level for all stakeholders (Özkan, 2022). The values, which have been mentioned above, appear through the skills that enable the implementation of the policies planned on the basis of corporate social responsibility. And thus, responsible leadership, which integrates all kinds of needs of its stakeholders with the objectives of the enterprise, finds the way to the management literature as a subject worth being examined (Siegel, 2014; Waldman et al., 2019).

3. Person-Organization Fit

Person-organization fit, in its simplest form, is the suitability of employee qualifications with job qualifications (O’Reilly et al., 1991). In terms of

handling, person-organization fit was analyzed in a four-dimensional way, which included the intersection of values accepted by the employee and the organization, the intersection of leader and person goals, efforts for the fitness of individual and organizational needs, and organizational climate that reveals person and organizational personality (Cable and Judge, 1994; Kristof, 1996). It is possible to state that person-organization fit is often associated with leadership as it can be understood from the dimensions. Besides the leadership, it was observed that commitment, satisfaction, organizational citizenship behaviors were searched under the same roof (Özkan et al., 2019). The concepts of ethics and commitment as the intersection of employee and organizational values were also examined by Valentine et al., (2002) on the axis of person-organization fit, and the existence of positive relations was revealed. It is seen that there is evidence that reveals the relation between person-organization fit and positive organizational behavior outcomes when the literature is viewed (Verquer et al., 2003; Üzum et al., 2022).

4. Purpose, Significance and Hypotheses of the Research

The qualifications of the leaders have also impact on the working welfare of the employees (Kuoppala et al., 2008). In addition to the fact that the importance of the leader's personal relationships with her/his employees (Carmeli et al., 2009) and the sense of righteousness that the leader's actions arouse in the employees ensure that the employees also tend towards the same goal, the approval of these behaviors by the environment will positively affect organizational outputs such as person-organization fit (Johson et al., 2017). Person-organization fit of employees in organizations that embrace ethical values also increase (Ambrose et al., 2008; Ruiz-Palomino et al., 2013). It is also possible to evaluate the positive contributions of ethically responsible leadership to the organization and employees on the basis of stakeholder theory (Voegtlin et al., 2012; Lu, 2012).

The relation between working time, person-organization fit and organizational behavior outputs has been revealed by viewing employee's personality traits (Stokman, 2003). Supeli and Creed (2014) examined the relation between working time and person-organization fit together with job satisfaction, intention to leave and commitment in their research. It should also be taken into consideration that the concept of time is an important criterion in terms of the sustainability of experience and relations, which can replace the tolerance distance required to achieve the balance between expectations, received and given. It was observed that ethical leadership perceptions of employees having an average working time of nine years have a positive impact

on person-organization fit (Grobler and Grobler, 2021). Lin et al., (2020) dealt with the relations between responsible leadership, knowledge sharing and performance in the regulation of working time in their researches.

It is thought that having sufficient information about the organization or the leader is related to the working time. It is assumed that the feeling that responsible behavior towards the stakeholders is practised is affected by the working time. Even if the conditions are the same, time-oriented variables, such as tenure and professional experience will not remain constant (Gerhardt et al., 2009). In the study of Chan and Mak (2014), in which professional experience plays a regulatory role, leader trust and behaviors were examined from the framework of servant leadership. In Leo and Seo's (2019) research, it was seen that professional experience was handled as a control variable, and the time had a positive effect on the perception of supportive leadership and person-organization fit. The concepts that were dealt with in the research are similar to the research of Lin et al., (2020) in terms of relations, while it differs from the research by handling the person-organization fit as the outcome variable. When it is taken into account that the characteristics of the employees will change over time, it is thought that examining the regulatory role of professional experience in the effect of responsible leadership on person-organization fit is valuable and will fill the gap in the literature. The hypothesis, which was formed by considering these view, is given below:

H₁: Professional experience play a moderator role in the relation between responsible leadership and person-organization fit.

5. Research Method

In this research, the study was carried out according to the causal screening model, which is one of the quantitative research designs, in order to determine the moderator role of professional experience in the relation between responsible leadership and person-organization fit.

5.1. Population and Sample

The universe of the research consists of employees who work in the food sector in Aydın. The number of samples to be reached in this research was determined between 45 and 135 since the number of samples, the q value, to be reached by Shirsavar, Gilaninia, and Almani (2012) was formulated as $(n): 5q \leq n \leq 15q$ to express the number of items in the questionnaire. Simple random sampling was used as the sampling technique, and 194 participants were interviewed between 01-24 January 2022. After the necessary examinations had been done,

33 questionnaires were excluded from the evaluation and the research was continued with 161 participants.

5.2. Data Collection Tools

Questionnaire technique was used as data collection method in the research. In the questionnaire form, there are questions which aim to obtain demographic information as well as scales. A 5-point Likert scale was used to measure the participants’ level of agreement with the relevant statement.

Responsible Leadership Scale: The scale was developed by Voegtlin (2011) and it was adapted to Turkish by Özkan and Üzüm (2021). Responsible leadership scale is represented by a structure which consists of five items and a single factor.

Person-Organization Fit Scale: The original of the scale was developed by Netemeyer et al., (1997) and it was adapted into Turkish by Elçi et al., (2008). The scale consists of four items and a single factor.

6. Findings

The results regarding the mean, standard deviation, kurtosis, and skewness values of the research variables are given in Table 1.

Table 1: Values for Variables

Variables	Mean	S.S.	Skewness	Kurtosis
1. Responsbile Leadership	3.27	1.04	-.556	-.441
2. Person-Organization Fit	2.98	.87	-.205	-.198

The mean of the responsible leadership scale used in the research is 3.27, and the person-organization fit is 2.98. Distribution of the data set is normal according to the skewness and kurtosis values (Tabachnick and Fidell, 2013).

Table 2: Correlation Table, α , CR and AVE Values

Variables	1	2	α	CR	AVE
1.Responsbile Leadership	1		.91	.91	.67
2.Person-Organization Fit	.48**	1	.83	.83	.56

N=161; **p<.01; α =Cronbach’s Alpha; CR=Combined Reliability; AVE=Average Variance Explained

When the correlation values in Table 2 are viewed, it is seen that there is a positive and significant relation between responsible leadership and person-organization fit ($r=.48$; $p<.01$).

The fact that the Cronbach Alpha (α) coefficients and CR values of $\geq .70$ indicate that the scales have internal consistency while that factor loads and CR coefficients of $\geq .70$ and AVE values of $\geq .50$ shows convergent validity (Hair et al., 2006).

Table 3: Factor Loads of Variables and Measurement Model Values

Variable	Scale Items	Factor Value	Variable	Scale Items	Factor Value
Responsible Leadership	Item 1	.78	Person-Organization Fit	Item 1	.56
	Item 2	.83		Item 2	.79
	Item 3	.86		Item 3	.85
	Item 4	.85		Item 4	.77
	Item 5	.75			
Measurement Model: $\chi^2/df=2.07$; RMSEA=.08; SRMR=.04; GFI=.93; NFI=.93; TLI=.95; CFI=.96					

According to Table 3, the measurement model was found to be compatible with the data in the conclusion of confirmatory factor analysis (Jöreskog and Sörbom, 1993).

Process Macro, which was developed by Hayes (2018), was used to test the moderator role of professional experience in the effect of responsible leadership on person-organization fit. Bootstrap technique and 5000 resampling options were preferred in the analysis. Regression analysis results were presented in Table 4. According to the results, it was seen that the estimation variables included in the analysis explained about 30% ($R^2=.295$) of the variation on the person-organization fit. It was detected that responsible leadership and professional experience have positive and significant effects on person-organization fit ($b=.43$, $p<.001$; $b=.01$, $p<.05$, respectively). It was also determined that the interactional impact of responsible leadership and professional experience variables on person-organization fit was significant ($b=-.01$; $p<.01$).

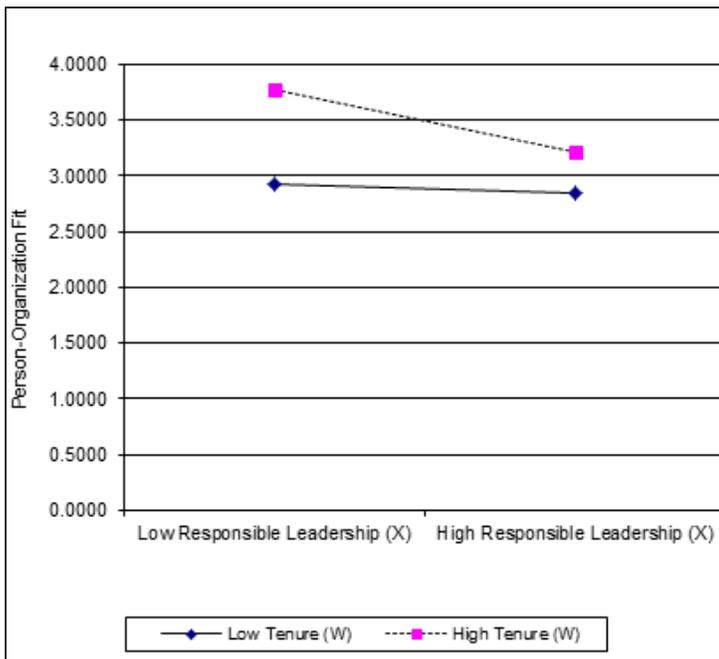
Table 4: Regression Analysis Results Showing the Regulatory Effect

Variables	b	S.E.	t	Confidence Interval
Stable	2.988	.058	51.003***	[2.87; 3.10]
Responsible Leadership (X)	.434	.057	7.617***	[.32; .54]
Tenure (W)	.013	.006	2.260*	[.00; .02]
X.W	-.018	.005	-3.287**	[-.02; -.00]

R=.54; R²=.30; ***p<.001; **p<.01; *p<.05; b=Unstandardized Beta Coefficients; S.E.=Standard Error

In the conclusion of the slope analysis, the effect of the regulatory variable was shown graphically in Figure 1. It is seen that the impact of responsible leadership on the person-organization fit decreases when the professional experience is low and the details of the regulatory effect are examined. This result means that the relation between responsible leadership and person-organization fit is regulated by professional experience. As a result of this finding, H₁ was supported.

Figure 1: Graphical View of Regulatory Effect



7. Conclusion and Recommendations

This research expands the scope of related researches by revealing the relation between responsible leadership and person-organization fit, which is considered as an organizational behavior output. It also shows that it is different by proving the existence of the regulatory role of professional experience.

It is emphasized that responsible leadership is a collaborative and purposeful process that builds values, and it is accepted that long-term employees can perceive the responsible leader better (Maak and Pless, 2006; Dugan, 2015). It has been proven that the philosophy in which the responsible leader puts the expectations of all stakeholders on a common ground has a positive contribution to the person-organization fit of the employees and that the tenure period has a regulatory effect. Thus, it is seen that the change in employee perception caused by the differentiation in working hours can create a change in the perception of responsible leadership and the relation between person-organization fit.

In terms of management, it is an important criterion not to lose employees and to increase their intention to continue to work. The high perception of satisfaction and workfare will reinforce the stated intentions. A certain period of time is needed in order to be understand the leader relations. The belief that the managerial responsible leader is “right” should be sustained through organizational policies and practices for all stakeholders.

Even though responsible leadership is a management style for all stakeholders, only the perception of responsible leader in the eyes of employees was measured in this research. It is recommended to evaluate the responsible leadership perceptions of all stakeholders in future researches. It is also thought that investigating the relation between environment-oriented organizational citizenship behavior will contribute to the literature, owing to the sensitivity of the responsible leader to the environment.

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CHAPTER XI

ETHICS IN THE ORGANIZATIONS

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1. Introduction

Rapid mechanization during the industrial revolution caused and led the establishment of many organizations, and this number has been increasing in the modern technological world of business. Nowadays, working individuals spend most of their times in the organizations. Due to the heavy workload and long working hours, employees and organizations share and interact intensely and indispensably. During these interactions, organizations' and employees' expectations may meet or conflict from time to time. Thus, reciprocal understanding plays an essential role to obtain positive work outcomes for both employees and organizations.

Specific phenomena shape and lead human behaviors. Among these, the concept of ethics has taken place among the indispensable parts of the organizations in the world of business. Ethical values, which reflect and transform both the climate and culture of the organization, form an organizational system that is fairly equipped, appreciated and more committed both inside and outside the organization.

In today's world of business, specific concepts such as health, environment and humanistic approaches have gained attention and embraced with utmost importance by the organizations. Also, these concepts have been started using

within the scope of *ethics*, this transformation reveals an obligatory adaptation that should be perceived and applied by the businesses. Besides, the motto that goes “Good ethics is good business”, provides contribution to direct the organizations implement business ethics as well as ethical practices.

Ethics, derived from the word “ethos” in Greek means habit and tradition, and it is used with the same origin in various languages today. The word *ethics* meets the meaning of individual character in the sense of “being a good person” (Oral et al., 2019: 2). In addition, it is expressed as consciousness/awareness based on morality, belief, behavior, and character (Atayman, 2007: 11). Besides, ethics is a discipline that investigates the principles of the emergence of the moral actions, rules, values and how they are directed. In other words, ethics is personal thinking process about how to sustain a good life with others (Usta, 2011: 40); also, it can be considered as the interpretation of human moral behavior from a philosophical point of view (Toplu, 2007: 188).

Similar to this approach, Kaplan (2009: 344) also described ethics as a philosophical discipline which investigates the value judgments in relationships involving the individual or society in terms of morality. Ural (2003:3) states that ethics leads the way to the system of principles, values and standards that explains and defines how individuals will behave correctly. Rowe and Guerrero (2010: 317) claims that ethics enables individuals to decide what is right or wrong, good, or bad in any situation.

According to Cevizci (2002:5); ethics aims to guide the individual’s actions directing how an individual should behave, what basis should be followed, and shape the form of interpersonal behavior. Besides, ethics deals with the moral problems in the society in depth, redefines it if necessary, and forms the moral principles to be adopted consistently. It is possible to define ethics as a branch of philosophy that distinguishes between good and right, bad, and wrong, and questions what the main purpose of human life should be and investigates the kinds of values of a virtuous and moral life. Although the concept of ethics is used in the same way as the concept of “morality” in the literature, it can be explained as ‘ethics is moral philosophy and morality is the area of interest of ethics’ (Elgin, 2006: 17). More clearly, ethics is about the values that a person wants to express in a certain condition; morality is the way of putting it into practice (Özkalp and Kirel, 2016: 504).

Ethics requires compliance with the rules, morality is a discipline about how an individual should behave. While ethics is the theory of right and wrong behavior; morality is its practical form. Talking about the principles, the concept of ethics is used, and when it comes to behavior, the concept of morality is used.

The values that an individual wants to express is considered as ethics, while morality is the way to apply this to life (Kılıç, 2017: 12). Three types of ethics are generally depicted in the literature. These are descriptive, normative, and meta-ethics (Cevizci, 2002).

Descriptive Ethics: This expresses the scientific approach explaining and defining the people's moral beliefs, actions, and thoughts. Descriptive ethics describes the consequences of actions by observing human actions, and it attempts to explain the psychological and sociological situations in moral beliefs. This type of ethics examines the events and facts within a scientific framework, researches and provides explanatory descriptions.

Normative Ethics: This type of ethics creates and recommends a lifestyle that shows individuals what is good and right, what is bad and wrong, what to do and what to avoid. Acting as a guide, normative ethics, provides individuals with norms to use. Reminding responsibilities and obligations, this type of ethics argues that there are objective moral truths.

Meta- Ethics: This type of ethics, which has emerged in the 20th century, examines the moral concepts and value judgments claimed by normative ethics discussing and analyzing the issues related to the criteria of moral boundaries. Meta-ethics does not make rules such as determining the lifestyle of individuals, setting rules, or giving advice. Resnik (2004: 5) claims and states the two important questions of meta-ethics, the first one is "Is morality objective?", and the second one is "Why do we have to fulfill our moral obligations?" by expressing the verifiability, nature and meanings of ethical terms and concepts of ethical standards, values, principles, and theories.

This study aims to provide a theoretical framework examining the term "ethics" which is important at an individual and organizational level. The definitions and different perspectives of ethics have been presented in this part of the study. The following parts include the ethical theories, ethical climate, ethical leadership, business ethics, and unethical pro-organizational behaviors.

2. Ethical Theories

Ethical theories are generally classified as teleological (consequentialism) and deontological (non-consequentialism) (Arslan and Berkman, 2009: 33).

2.1. Teleological Theories

Teleological theories explain the ethical correctness of a behavior based on the consequences of that behavior. In other words, teleological philosophy

evaluates an action in relation to its consequences (Ferrel and Fraedrich, 2015: 55). Berkman and Arslan (2009: 34) state that “an action is not good or bad, it is the consequences of the action that make that action good or bad. If the action is beneficial, it is good”. Ethical egoism and utilitarianism are two approaches of teleological philosophies.

Egoism: This approach highlights that the individual places ‘individual interest’ in the center of his/her actions. The selfish person maximizes individual interests and accepts the behavior as ethically correct by defining the interest for each individual. These interests are stated as power, career, lust or a good family life (Kirel, 2000: 41).

According to Fritzsche (2000); decisions made based on the selfish approach taken to provide the highest benefit for an interest group, regardless of the outcomes for other people. The beneficial outcomes do not need to negatively impact others. For example, decisions that provide good results for the individual or business can also benefit society or the country. The important point to be noted is that this benefit, which affects the interest group, is out of the focus of the decision maker.

Utilitarianism: This is a teleological approach that states “the main motive which is the basis of all human activities and directs people to act is gaining benefit” (Demir, 2003: 105). If there is benefit as a result of the action, it is considered as good. Some bad things in the performance of the action are viewed as tolerable if it ultimately benefits. However, this approach is exposed to some critiques as it may encourage or support several unethical attitudes or behaviors, for example, not telling the truth to an individual about his/her psychological disorder, which results in hiding the truth or even lying (Kılıç, 2017: 19). There are two approaches in the theory of utilitarianism as action and rule utilitarianism (Harsanyi, 1985). In the action utilitarian approach, it is taken into account what kind of outcomes will be provided to those who are affected by a certain situation and the result of the action. The outputs with the highest benefit and the highest goodness is perceived to decide about the action. For example, if more workers are expected to lose their jobs as a result of a bankruptcy; laying off workers is considered within the scope of action utilitarianism (Kılıç, 2017: 20). The rule utilitarian approach asserts that when a behavioral rule is adopted and provided benefits as a result of the outcomes, that behavior will benefit all thus, this rule is morally appropriate (Özgener, 2004: 40). For example, an organization regardless of product or service should not lie to its customer by predicting that approaching the customer with unreal information will affect the long-term customer reliability and as a result, lying will not bring the highest benefit.

The utilitarian theory has been criticized by the utilitarian defense of the managers of the organization, who display attitudes and behaviors, in order to ensure the legitimacy of their immoral decisions and actions. Besides, considering the benefit-harm balance for the result of the action may not always lead to logical results. The opposing view defended against the criticisms directed at the approach is that although it focuses on the benefit of the society, it should not be ignored that the indirect benefit of the society is also important (Arslan and Berkman, 2009: 34).

2.2. Deontological Theories

Deontological theories focus on the action itself while the utilitarian theories evaluate ethics with the result of action. The words deontology comes from Greek with the combination of words ‘deon’ which means homework’ and ‘logos means science (Homework Science / Ethics) (Kavi and Koçak, 2013: 8). The theory was developed by Immanuel Kant, one of the leading representatives of Western philosophy (Kılıç, 2017: 21). According to Kant, moral behavior is the behavior that should be performed in every condition or situation (Arslan & Berkman, 2009: 35).

The intention, principle, and the duty at the core of the action is valuable in the deontology approach. Assuming that there are some duties to be fulfilled due to the intelligence existing in human beings, thus the duty should be considered at the center of ethics (Cevizci, 2002: 16). The basic rule lies behind this approach is stated as “Treat others as you would like to be treated” (Jones and Jennifer, 2011).

The theory of deontology defends the protection of rights such as life, security and freedom of conscience, and argues that the basis of morality should be the values that do not change for everyone (Kılıç, 2017: 21). The theory of deontology is categorized in four approaches as Kant’s Ethics, Theory of Rights, Theory of Justice and Relativist Theory (Özgener, 2004: 42).

Kant’s Morality: The theorists who defended happiness and utilitarianism, Kant claimed the morality in humans towards the understanding of life. Kant who argued about an intelligible world focused on the norms that can be thought and interpreted by individuals, and these actions must comply with the norms, otherwise the phenomenon will result in lawlessness, and in Kant’s words, a negative freedom will emerge. Kant also defined the freedom in a positive way by providing pure practical reasons to make the laws. Kant stated the moral law as “Act in such a way that the maxim of your will can always pass as the principle of a general law” (Öktem, 2007: 3-4).

Theory of Rights: This ethical theory claims and advocates that each human has the fundamental rights and freedom that should be respected and protected. Living and safety, integrity, confidentiality, freedom of conscience, freewill and private property rights are included in the Universal Declaration of Human Rights within the scope of administrative decision and behavior (Torlak and Dalyan, 2012: 71).

Justice Theory: The theory developed by John Rawls (1999) argues that moral decisions should be within the framework of standardized accuracy, impartiality and equality. According to Rawls (1951); the equal distribution of social burden (responsibility) and benefit to all people is the basis of both justice and ethics. Also, this burden-benefit equation is provided and distributed objectively. For example, if two employees perform the same job with the same qualifications in the same job, they should both receive equal salaries; however, if one works twice as long as the other, that employee should be paid twice (Kılıç, 2017: 22). The advocates of the theory of justice generally do not take the behavior into account if some members get unjust results from the behavior when the majority of the society benefits (Kırel, 2000: 39).

Relativist Theory: From the perspective of Relativism, moral behavior is an inference from the experiences or cultural value judgments of individuals and groups that form the society (Torlak, 2013). This theory explains the behavior whether it is ethical or not on the basis of different cultures rather than a universal ethical understanding. Also, the theory argues that each society has its own framework of ethical norms, and the rules that are right according to one society may be wrong to the culture and rules of another society. In general, it is argued that the acceptability of an ethical rule may differ from person to person (Şimşek, 1999: 59).

3. Ethical Climate

The ethical climate, which characterizes the organizational values, functioning and moral attitudes and behaviors of the procedures, was first discussed by Victor and Cullen (1987), and defined as “common perceptions about how ethical problems can be overcome and what ethically correct behavior is”. Schneider (1983) stated that ethical climate is a mechanism that ensures that organizational normative systems are properly understood by individuals.

Victor and Cullen (1988: 101) claim that perceptions dominated by unique organizational practices and procedures with ethical content constitute the ethical business climate. It is stated that the most important source of information for an organization member to choose the ‘correct’ alternative in case of deciding

which can affect others is the example of the business climate that determines workplace ethical behavior. In other words, ethical climate conditions, which include the perceptions and beliefs prevailing in the organization, are effective in what is right or wrong, when organizations perform their organizational functions (Victor and Cullen, 1988: 101).

Conceptually, ethical climate is a type of organizational work climate. Organizational ethical climate is a prominent concept in organizational behavior studies, which has become evident within the disciplines of sociology and psychology. Besides, the ethical climate, similar to other types of organizational work climates, may be linked to many organizational behaviors (e.g., the performance link of tardiness to work, turnover, or absenteeism). However, behavior is dependent on the dominant climate dimension in the work group (Wimbush and Shepard, 1994: 637).

Table 1. Theoretical Ethical Climate Types

ETHICAL CRITERIA	LOCUS OF ANALYSIS		
	INDIVIDUAL	LOCAL	COSMOPOLITAN
EGOISM	Self-Interest	Company Profit	Efficiency
BENEVOLENCE	Friendship	Team Interest	Social Responsibility
PRINCIPLE	Personal Morality	Company Rules and Procedures	Laws and Professional Codes

Source: Victor and Cullen, 1988: 104.

An organization's ethical climate characterizes the presence of business ethical norms in its daily work activities in a clear and sharp way. In the meantime, it also confirms that the ethical climate atmosphere exists spontaneously and perceived by all managers and employees of the organization, including the external policies of the organization (Savran, 2007: 18).

The first theoretical research on ethical climate was carried out by Victor and Cullen in 1988 (Tütüncü & Savran, 2007: 180). As it is indicated in Table.1, two-dimensional theoretical typology of ethical climates was used in the study. The first dimension is the ethical criteria used in organizational decision making consisting of self-interest, benevolence, and principle, and the second dimension represents the focus (levels) of analysis used as a reference in ethical decisions such as individual, local, and cosmopolitan (Victor and Cullen, 1988:104).

3.1. Ethical Climate Dimensions

Ethical climate is depicted by two-dimensional matrix as locus of analysis and ethical criteria.

3.1.1. Locus of Analysis

This group of analysis is the reference group that defines the source of moral reasoning which is used to apply ethical criteria to organizational decisions and/or the boundaries of what to consider in ethical analyzes of organizational decisions (Victor and Cullen, 1988:105). Also, this is a dimension used to implement ethical decisions in the organization (Dündar, 2010: 57). This dimension is classified as individual, organizational, and universal.

Individual Analysis

It is based on individuals' own moral considerations. The decisions made in the organization are made depending on the moral beliefs of the individuals. This dimension depends on personal preferences, and it has been a guide for the formation of an individual ethical climate (Akbaş, 2010: 123-124).

Local Analysis

Local analysis depends on how other people in the organization evaluate their current position, their decision making, and questioning whether the situation right or wrong. Decisions can be influenced by teammates or the policies of the organization. The closer social systems that individuals are associated with is important for the local dimension (Mert, 2017: 13).

Cosmopolitan Analysis

This dimension guides resources outside the organization, groups (such as professional organizations and the legal system), and profession or society. The universal analysis dimension is based on the organization and the group. The cosmopolitan sources of ethical thought are abstract concepts that are generalized outside the organization but are used in organizations as part of the institutionalized normative system. The source of occupational norms that guide behaviors usually join the organization from outside, determine work norms and continue to be a part of a climate in professional business organizations. In addition, the cosmopolitan level is to be at the center of an external organization or group as another level (Savran, 2007:28).

3.1.2. Dimension of Ethical Criterion

Individuals have the tendency to follow the rules and principles less although they are optimistic if they are not aware of the laws and rules. On the contrary, those who are aware of the rules and principles may tend to be less sensitive than others. For this reason, organizations are expected to show different types of ethical climate. Even though there is usually a dominant climate type in an organization, it is a fact that there is no single climate type in organizations

(Victor & Cullen, 1988: 105). The ethical criterion dimension consists of egoism, benevolence, and principle climate.

Egoism

In an egoistic climate, organizational norms support the satisfaction of self-interest (Parboteeah et al., 2005: 461). The individual who takes decisions in this type of climate primarily thinks about own interests and ignores the interests of other individuals. Egoism refers to doing the behavior that is the most beneficial to oneself. For this reason, the factor that determines ethics in the decision-making process in the egoistic climate is one's own interest. The interests and needs of other individuals in the same unit or organization are ignored. Thus, gossiping, lying, and even theft can be seen in organizations that behave selfishly and self-interestedly (Akbaş, 2010: 122).

Self-Interest: Self-interest is stated as the prioritizing the individual's needs (such as personal gain, self-defense) and preferences at first on the top of the list or the center of every decision. Besides, this dimension is expressed as health, happiness, power, pleasure, or other criteria developed in line with one's demands and interests. The decision maker focuses on the satisfaction of his own needs, ignoring the needs of other individuals.

Company Profit: Selfishness is considered as the common interest. It is based on the idea that the decisions of the current working group should be conducted for the best interests of the organization. Shortly, it can be defined as the consideration of organizational interests.

Efficiency: In a universal focus, it can be explained as the interests of larger social or economic systems (Elçi and Alpan, 2006:145).

Benevolence Climate

In a benevolence climate, organizational norms support maximizing the interests of a particular social group (Parboteeah et al., 2005: 461). In organizations dominated by benevolence, the individual focuses on maximizing the interests of important others. Benevolence is based on concern for others. Individuals make ethical decisions by considering the consequences that will affect other individuals positively or negatively (Elçi and Alpan, 2006: 144).

Friendship: In the personal center of the analysis, benevolence is stated as caring for individuals other than organizational membership such as friendship, bilateral relationship.

Team Interest: In the organizational center of the analysis, benevolence is explained as ensuring the integrity of organizational interests such as teamwork and team spirit. This contrasts with organizational egoism.

Social Responsibility: In the universal center of the analysis, benevolence is expressed as paying attention to other factors outside the organization such as social stakeholders, social responsibility, customers, etc.) (Elçi and Alpkan, 2006: 146).

Principle Climate

In a principle climate, organization norms support following abstract principles regardless of situational consequences (Parboteeah et al., 2005: 461). The principle climate is based on factors such as ethical code, community laws or government policies and moral principles in the organization in order to adhere to rules, laws, procedures and policies (Victor and Cullen, 1988: 107). Victor and Cullen (1988) explained the principle criterion as the definition of expectations in the social structure in terms of laws, rules and standards. In this type of climate, when an ethical problem emerges, group norms or organizational norms argue that the individual should be completely dependent on the rules in decision-making (Akbaş, 2010: 122).

Personal Morality: At the individual center of analysis, principles are self-centered which means the individual is expected to behave according to individual ethics in this climate.

Company Rules and Procedures: At the organizational center of analysis, principles encompass the organization, organization's rules, and regulations.

Laws and Professional Codes: At the universal center of analysis, the source of rules and principles is outside the organization. In other words, the legal system is professional organizations. An ethical decision is highly influenced by ethical codes outside the organization (Elçi and Alpkan, 2006: 146).

3.2. *Ethical Climate Types*

Victor and Cullen (1988: 111) have been categorized the ethical climate of the organization with five dimensions after experimental research. These theoretically based dimensions are caring, law and code, rules, instrumentalism, and independence.

Caring: When the caring ethical climate exists in the ethical environment, employees show sincere interest in each other's well-being as well as individuals inside and outside the organization who may be affected by their ethical decisions.

Law and codes: An ethical climate shaped by laws and codes requires employees to comply with the codes and regulations of another authority or their profession.

Rules: An organization characterized by rules consists of employees who strictly adhere to rules and policies. This type of climate serves as a guide for ethical decision-making for the employees of the organization who take the rules in the first place.

Instrumentalism: In this type of ethical climate, the employees of the organization prioritize their own personal interests above all, even if there are others who will be affected by the results of their own decisions.

Independence: Employees are guided by their own moral beliefs and attitudes and act in this direction in this type of ethical climate. Also, they have little or no influence on the ethical decision-making of others inside and outside the organization (Wimbush and Shepard, 1994: 638-639).

4. Ethical Leadership

The concept of leadership has its roots in Anglo-Saxon when it is examined etymologically which has been defined as ‘the way or method’. Leadership has many definitions within different contexts Winston and Patterson (2006: 7) have provided an integrative definition which is one of the deeply detailed studies. Winston and Patterson (2006:7) have defined the leadership in a very detailed perspective focusing on the characteristics of leaders who select, equip, train, and influence one or more followers having diverse gifts, abilities, and skills. Besides, leaders reach their achievement by using ethical means (Winston and Patterson, 2006). Thus, leadership has been stated as the instrument of goal achievement (Bass, 1990: 15-16).

An ethical leader has been perceived as a person who acts within the ethical rules, gives importance to the personal needs of the employees, avoids prejudice and unfair attitudes, and feels awareness about employee rights (Zhu, May & Avolio, 2004: 18). In addition, ethical leadership can be defined as showing appropriate normative behaviors, and encouraging the followers through reciprocal communication, empowerment and decision making to fulfill important goals (Brown, Trevino & Harrison, 2005: 120).

According to Howard (2005), ethical leadership consists of four basic characteristics. The first one is the honesty and modesty of the during the lifetime. Secondly, the ethical leader has future-oriented ideals. Thirdly, the ethical leader is hopeful and optimistic. The last one is that the ethical leader provides contributions to the well-being of others. In addition, Harvey (2004) listed the characteristics of ethical leaders as follows:

- Ethical leader gives responsibility to people.
- The ethical leader dedicates time and resources to help people gain the skills and confidence to transform their right behavior into good behavior.
- Ethical leader makes decisions within the framework of ethical values.
- Ethical leader leads the way helping the followers feel motivated rather than rebelling, blaming, or waiting for others.

Table 2 shows the characteristics of ethical leaders stated by different theorists.

Table 2. Characteristics of Ethical Leader

Burns, 1978	An ethical leader prioritizes the shared values, demands and needs and uses the current services in this direction, shares the authority, ensures the loyalty of the followers, keeps the promises about economic, political or social changes by not just repeating or not emphasizing pure piety or social traditions.
Brown et. al., 2005	An ethical leader provides unity, loyalty, and honesty, cares for others and becomes a role model.
Harvey, 2004	An ethical leader creates values and ethical awareness, gives responsibility to people, becomes an example for others, decides within the framework of values, ensures policies and practices, provides education on values and ethics, pays attention to perceptions, focuses on a stable and accelerating change, forms an environment with ethical values, recruits and promotes, adapts the changes.
Bandura, 1986	According to Bandura, leaders are reliable, interesting people, and their values and behaviors are followed with envy by the society, they set advanced open ethical standards for the employees of the organization, if necessary, they can reward or punish their followers according to these standards.
Tupes and Christal, 1961	Ethical leaders are altruistic, reliable with common sense, courteous, open to cooperation by establishing positive relations with employees, also they have a sense of duty, and they are respectful, determined, controlled, attentive, thoughtful.
Starratt, 1994	The ethical leaders act independently.

Source: Börü and Boyacı, 2016: 167.

5. The Concept and Importance of Business Ethics

The concept of business ethics has also been used as “works ethics, professional ethics or commerce ethics” in the literature (Arslan, Berkman, 2009: 13). Shaw (1991) has stated that “business ethics covers the ethical principles and standards that guide behavior in the business world, and a phenomenon that evaluates the

actions of individuals involved in the organization as good or bad and right or wrong”.

Business ethics, as defined by Barsh and Lisewski (2008: 29), is “the systematic process that commercial organizations use to evaluate their actions as right or wrong”. Besides, Fleddermann (1999: 4) claims that the perception of the general concept of ethics has been also valid in the business world. According to Bolat and Seymen (2003: 69), business ethics in organizations is a systematic group consisting of ideas, business-oriented aims, and activities carried out to achieve them, duties and responsibilities, and the attitudes and behaviors of the stakeholders towards the organization which defines them as good, bad, wrong, and right and enables them to be understood (Bolat and Seymen, 2003: 69). Potocan and Mulej (2009) have identified some of the most popular definitions of the business ethics as follows:

- Business ethics is the field of ethics that explores ethical rules and principles in a commercial context.
- Business ethics is the branch of ethics that searches about business practices and attitudes towards social responsibility in any economic system.
- Business ethics is concerned with business situations, activities and decisions that include what is considered right and wrong (Crane and Matten, 2003).

According to Tierney (1997), business ethics forms the basis for individuals to increase their efficiency and productivity by directing their emotions, value judgments and attitudes. Tota and Shehu have stated the role of business ethics in the organization as follows:

- Defining and classifying the value creation process in the free-market economy and organizations.
- Determining and classifying which decisions will be made in organizations.
- Defining the values to be followed in organizations and publishing them with the aim of being followed throughout the organization,
- Determining how decisions will be made in accordance with moral principles and their publication for compliance.

Business ethics specifically focuses on how to integrate ethical standards into organizational policies and behaviors. At the same time, during the production and distribution of goods and services, the business ethics has the task of providing information on how the moral norms in the organization will be transferred to the actions by the employees (Kavi & Koçak, 2013: 13-14). Social environment, religious beliefs, and cultural norms play roles in the emergence of

the ethical values in the organization. Some values emerged by these factors are listed as follows (Torlak, 2009: 163):

- Benefiting the environment and society (creating employment, helping each other, etc.),
- Protecting the group interests
- Being principled, showing commitment to religious beliefs, cultural values, customs, and traditions
- Being able to take care of personal interests together with organizational and social interests
- Being fair and honest, protecting their own rights,
- Fulfilling responsibilities, keeping promises, abiding by contracts.

Organizations have been more aware and more sensitive about the business ethics in recent years. The reasons for these awareness and sensitivity are increasing responsibilities towards the environment, the effectiveness of environmentalists, the green movement, consumer rights, unlimited customer satisfaction, the increasing role of women in business life, and the emerging sensitivity towards sexual harassment issues (Altuğ & Güler, 2003: 321).

Business ethics, which is directly related to social responsibility and environmental awareness, includes all moral problems encountered by employees, managers, the business and those who do business with the organization, or environmental factors (İlhan, 2005: 261).

5.1. Fields Of Business Ethics

Business ethics captures three main fields. These are work ethics, professional ethics, and business organizations ethics (Arslan, 2012: 247).

Work Ethics: Work ethics refers to the attitudes and behaviors of individuals in the society towards work and the job. As the attitudes of societies towards work may be different, there may also be changes between different fields of work within the same society. While some societies or social segments develop positive attitudes towards hard work and work, some societies may prioritize rest and entertainment rather than work (Arslan, 2012, 79). The basics of work ethics can be summarized with the following statements (Arslan & Berkman, 2009: 37):

- Work is the most central occupation of life.
- Work is a social duty,
- Work is more important than free time.

- Work is an action to organize the time.
- Work makes a person punctual, frugal and disciplined. An individual obtains identity, respect, psychological satisfaction, and status through work.
- Work provides opportunities for the development of creativity and abilities.

Professional Ethics: Professional ethics is “a type of applied ethics that creates ethical rules and principles specific to each profession and contributes to their standardization” (Kozak & Güçlü, 2016, 78). The foundation of professional ethics is based on human relations. It is a requirement of professional ethics that individuals from the same profession comply with certain behavioral norms in their relations with each other (Aydın, 1993: 71).

According to Durkheim, professional ethics is always a team effort. Professional ethics consists of rules that can remain in effect as long as the group protects it, and it directs individuals to certain behavior patterns, puts a limit to personal tendencies and prevents them from crossing this limit. Groups formed by the individuals from the same profession have been considered stronger. In strong groups, ethical principles are more effective because in a group with compatible individuals, communication creates effective coordination and the values they share show the same intense of sensitivity. When the opposite of this situation has been experienced, organizational control cannot be effective on the group consisting of unstable members and it is difficult to impose sanctions on those who violate the rules (Aydın, 2014: 99-100).

Business Organizations Ethics: Unlike the professional ethics, business organizations ethics is not individual, it is the ethical principles of the organization itself. Each business operating in the economic field has its own ethical principles, values, and norms. While businesses must act with a sense of ethical responsibility towards their employees, customers, and suppliers, they are also responsible for the whole society and the natural environment (Bahar, 2014: 125).

5.2. Unethical Behaviors in the Organizations

Unethical behaviors have been explained as inappropriate, counterproductive, deviant, dishonest harmful actions performed by the individuals against their organizations. It has been claimed that personality traits and unfair treatments within the organization can be the trigger for the emergence of these undesirable behaviors (Akyüz et al., 2016: 90). Tota and Shehu (2012) stated the examples of unethical pro-organizational behaviors encountered in organizations as follows:

- *Relationships with suppliers and business partners:* Dishonesty in making and keeping contracts
- *Relationships with customers:* Unfair pricing, cheating customers, dishonest advertising, research confidentiality
- *Relationship with employees:* Discrimination in hiring and treatment employees
- *Management of financial resources:* Tax evasion

The unethical pro-organizational behaviors can be classified as follows (Doğan, 2009: 189-191):

Unethical pro-organizational behaviors for the organizations

- *Evading tax*
- *Showing a tendency to monopolization*
- *Creating an unfair competition environment*
- *Making unfair pricing,*
- *Making unfair remuneration*
- *Printing and using fake invoices*
- *Not respecting consumer rights*
- *Violating the consumer rights*
- *Releasing the market products that are harmful to human health*
- *Not caring the rights of shareholders and employees in the purchase during the purchase process*
- *Not showing respect towards nature and the environment*
- *Ignoring employee safety and not taking the necessary precautions,*
- *Employing employees without insurance,*
- *Doing forgery and fraud in foreign currency, Turkish currency, checks and stocks.*

Unethical pro-organizational behaviors for the managers and leaders

- *Billing the personal expenses to the organization*
- *Spending unnecessarily and excessively*
- *Not treating employees fairly*
- *Not caring about the employees*
- *Using employees for the personal responsibilities*
- *Giving and receiving gifts from people wealthy and powerful people*
- *Favoring a certain organization to supply the products*

- *Gaining interest in purchasing and service performance*
- *Leaking information to competitors*
- *Being unfair in performance evaluation*
- *Falsifying the books and documents*
- *Lobbying politicians to gain benefits*
- *Taking more money from the organization with fake documents*
- *Increasing the expense with fake documents*

Unethical pro-organizational behaviors for the employees

- *Using the tools, equipment, and materials of the organization for his/her own private works*
- *Arriving late for work and leaving early*
- *Neglecting duty*
- *Falsifying the books and documents*
- *Hiding the error*
- *Treating the customer badly*
- *Forgery of documents*
- *Leaking confidential information*
- *Abusing permission*

5.3. Unethical Pro-Organizational Behaviors

The unethical pro-organizational behaviors have been searched and revealed by Umphress et al. (2010) in the field of organizational behavior. The term been defined as the behaviors performed by employees to provide benefits to their organizations by potentially harming the interests of external stakeholders by violating ethical norms (Effelsberg et al., 2014: 82).

Umphress et al. (2010: 770) state that unethical pro-organizational behaviors include two basic descriptive components. First, such behavior is illegal or unethical behavior that is morally unacceptable by the society. The second is that such behaviors are pro-organizational behaviors which are not included in formal job descriptions, and these are not demanded by the top executives but carried out to benefit or help the organization (Karagöz, 2018: 24).

Umphress and Bingham (2011: 622-623) state three boundary conditions in order to determine whether a behavior is unethical pro-organizational behavior. First, the employee may engage in unethical pro-organizational behavior without specific intention to benefit or harm (e.g., an employee failing to report a serious product defect to the customer because that employee is unaware of it). Since such

behaviors do not consciously aim to provide benefits to the organization, they are not included in the scope of unethical pro-organizational behaviors. Second, the intention of the employee may be inconsistent with the result of the behavior although the employee may aim to provide benefits to the organization (e.g., an employee destroying incriminating documents to protect the organization). The third one is employee's own interests which can be considered as the employees only care about their own interests and benefits.

The examples of unethical pro-organizational behaviors can be given as follows: Machiavellism, work engagement, destroying the documents by employees or managers to protect the organization, giving fake or false information to customers, and manipulating information to protect the organization's image, hiding the truth from stakeholders, providing a positive reference to an organization on behalf of an incompetent employee, and giving false information to the employees (Karagöz, 2018).

6. Conclusion

Gaining attraction in the field of organizational behavior, the concept of ethics can provide several privileges and advantages for the organizations. Customer satisfaction, positive reputation, competitive advantage, commitment of customers and employees to the organizations are considered among these privileges. Besides, individuals who take part in the organizations showing behaviors based on the ethical norms and policies will provide a sustainable organizational profit in the long term.

The ethical climate in the organization provides positive increase in work-related outcomes such as employee performance, organizational commitment, and subjective well-being. Likewise, an organization with ethical leadership perceives fair and caring approaches towards the employees which result in an increase of the job satisfaction. Considering the work ethics in the organizations, establishing an ethical work environment may also prevent conflicts of interest by emerging a morally structured manager-employee relations in the organizations. On the other hand, within the today's competitive hardships and rapid changes in the technology both organizations and employees can experience the negative pressure of sustainability. These survival efforts can cause a mandatory direction towards unethical pro-organizational behaviors for the short-term in the organizational process. However, adopting unethical pro-organizational behaviors damage the organizational reputation and sustainability in the long run.

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CHAPTER XII

RELATIONSHIP BETWEEN FINANCIAL SERVICES CONFIDENCE INDEX AND CDS PREMIUMS: TIME SERIES ANALYSIS WITH STRUCTURAL BREAKS

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1. Introduction

Constituting the foundation of behavioral models, investor sentiment can be defined as is a belief about future cash flows and investment risks. Studies on investor sentiment are important as they show the bias in investors' investments and provide an opportunity to receive above-normal returns by taking advantage of these biases (Fisher and Statman, 2000:16). Investor sentiment is a driving factor that predicts changes in investment decisions in the economy and causes these decisions. Low financial expectations have a negative impact on investment decisions while high expectations have a positive impact (Carrol et al., 1994:1398).

Confidence indices have been used in recent studies as an indicator of investor sentiment. The financial services confidence index, which is one of these indexes, was introduced by the Turkish Central Bank to follow the retrospective assessments and expectations of financial institution managers and to reflect the developments in the financial services sector. Created on the basis of the survey on financial services, this index takes into consideration the transaction volumes, revenues, number of employees, operating income, operating expenses, capital expenditures, competitiveness, and market share

of financial institutions. The high index value means that the confidence and expectation of financial institutions in the market are high (Çevikalp, 2017: 32; Tüzün and Ceylan, 2018: 596). When the confidence in and expectation of the market is high, investors' investment decisions will be influenced positively.

Credit default swaps (CDS) are the most common credit derivative, accounting for more than half of the nominal value of all credit derivatives. CDS is a bilateral financial agreement in which a party that purchases the protection periodically pays a premium or fee to the seller of the protection in the event of a credit event involving a reference asset. This agreement offers insurance against default by a specific company or an independent institution (Brandon and Fernandez, 2004: 7; Hull et al., 2004: 2790). In the economic system, CDS premiums increase with risk. Therefore, investors use CDS premiums as a priority indicator of possible risks in financial markets (Topaloğlu and Ege, 2020: 1374). Therefore, it is safe to say that CDS premiums are influential on investors' investment decisions and the fact that the risk is low during times when CDS premiums are low will have a positive impact on investor decisions.

The purpose is to investigate the relationship between the financial services confidence index and CDS premiums, based on the fact that changes in the financial services confidence index influence the decisions of investors, represent the belief and bias against future investment risks, and CDS premiums increase when investors deem the financial system risky. According to the literature, İskenderoğlu and Akdağ (2017), Eyüboğlu and Eyüboğlu (2018), Tüzün and Ceylan (2018), Canöz and Erdoğan (2019), Hamurcu (2021), Süsay and Eyüboğlu (2021), and Alptürk et al. (2021) found a relationship between the financial services confidence index and the BIST1000 index, BIST tourism index, CDS risk premium, BIST sectoral indexes, foreign shares and portfolio investments, BIST service indexes, and BIST city indexes, respectively. In international literature, there are studies (e.g., Fisher and Statman (2003), Jansen and Nahuis (2003), Chen (2011), Hsu et al., (2011), Sum (2014), Anand et al., (2021), and Wang et al., (2021) exploring the relationship between the consumer confidence index and share markets. There seems to be a limited number of studies examining the relationship between the financial services confidence index and CDS risk premiums. Therefore, the findings of this study are of importance for investors and contribute to the literature. The purpose, scope, data set, methodology and findings of the study are detailed in the following sections of the study under the methodology section. The study is

concluded with the conclusion section where the findings are interpreted and discussed.

2. Methodology

This section covers the purpose, scope, data set, methodology, and analysis findings.

2.1. Purpose, Scope, Data Set, and Methodology of the Study

The purpose of the study is to examine the relationship between the financial services confidence index (FSCI) and credit default swap (CDS) risk premiums between May 2021 and December 2021 using monthly data via time series analyses with structural break. Secondary data on the financial services confidence index was received from the data distribution system of the Central Bank of the Republic of Turkey, while secondary data on 5-year CDS premiums was received from the investment.com database. The series were included in the analysis by taking their logarithms. In this context, the stationarity of the series was examined using the Fourier ADF (Enders & Lee, 2012), Fourier LM (Enders & Lee, 2012) and Fourier GLS (Rodrigues & Taylor, 2012), which are structural unit root tests. The equations for the stationarity tests are shown below.

$$\Delta FSCI_t = \alpha_0 + \alpha_1 t + \delta FSCI_{t-1} + \sum_{i=1}^N \Psi \Delta FSCI_{t-i} + \varepsilon_t \quad (1)$$

$$\Delta CDS_t = \alpha_0 + \alpha_1 t + \delta CDS_{t-1} + \sum_{i=1}^N \Psi \Delta CDS_{t-i} + \varepsilon_t \quad (2)$$

Following the examination of the stationarity of the series, the long-term cointegration relationship between the series was examined using Gregory and Hansen (1996), CiS and Sanso (2006), Arai and Kurozumi (2007), Hatemi-J (2008), and Tseng et al. (2016) tests based on break at constant, break at constant and trend, break at trend, break at regime, and break at regime and trend. The equation for cointegration is shown in Equation 3.

$$FSCI_t = \alpha_t + \beta_{it} CDS_t + u_t \quad (3)$$

After identifying a cointegration relationship between the series, the direction of this relationship and coefficient estimation were examined using FMOLS (Phillips and Hansen, 1990), DOLS (Saikkonen, 1992; Stock and Watson, 1993), and CCR (Park, 1992) methods. The equations for the methods are shown in Equations 4, 5 and 6.

$$\hat{\theta} = \begin{bmatrix} \hat{\beta} \\ \hat{\gamma} \end{bmatrix} = (\sum_{t=1}^T \text{FSCI}_t \text{FSCI}_t')^{-1} \left(\sum_{t=1}^T \text{FSCI}_t \text{CDS}_t^{+'} - T \begin{bmatrix} \hat{\lambda}_{12}^+ \\ 0 \end{bmatrix} \right) \quad (4)$$

$$\text{CDS}_t = \text{FSCI}_t' \beta + D'_{1t} \gamma_1 + \sum_{j=-q}^F \Delta \text{FSCI}'_{t+j} \delta + v_{1t} \quad (5)$$

$$\begin{bmatrix} \hat{\beta} \\ \hat{\gamma} \end{bmatrix} = (\sum_{t=1}^T \text{FSCI}_t^* \text{FSCI}_t'^*)^{-1} \sum_{t=1}^T \text{FSCI}_t^* \text{CDS}_t^* \quad (6)$$

Following the cointegration coefficient estimation, the causality relationship between the series was examined using the Cumulative Fourier-Frequency Toda & Yamamoto Granger causality analysis, which takes into account structural breaks. The equation for the analysis of causality is shown in Equations 7 and 8.

$$\Delta \text{FSCI}_t = \alpha_0 + \sum_{j=1}^k \alpha_{1j} \Delta \text{FSCI}_{t-j} + \sum_{j=1}^k \alpha_{2j} \Delta \text{CDS}_{t-j} + \varepsilon_{1t} \quad (7)$$

$$\Delta \text{CDS}_t = \beta_0 + \sum_{j=1}^k \beta_{1j} \Delta \text{CDS}_{t-j} + \sum_{j=1}^k \beta_{2j} \Delta \text{FSCI}_{t-j} + \varepsilon_{2t} \quad (8)$$

After the causality analysis, the impulse-response analysis was performed. A standard VAR model was developed for the impulse-response analysis. The equations for the VAR model are shown in Equations 9 and 10, and the equation representing impact-response analysis is shown in Equation 11.

$$\text{FSCI}_t = a_1 + \sum_{i=1}^p b_{1i} \text{FSCI}_{t-i} + \sum_{i=1}^p b_{2i} \text{CDS}_{t-i} + v_{1t} \quad (9)$$

$$\text{CDS}_t = c_1 + \sum_{i=1}^p d_{1i} \text{CDS}_{t-i} + \sum_{i=1}^p d_{2i} \text{FSCI}_{t-i} + v_{2t} \quad (10)$$

$$\begin{bmatrix} \text{FSCI}_t \\ \text{CDSL}_t \end{bmatrix} = \begin{bmatrix} a_{10} \\ a_{20} \end{bmatrix} + \begin{pmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{pmatrix} \begin{bmatrix} \text{FSCI}_{t-1} \\ \text{CDS}_{t-1} \end{bmatrix} + \begin{bmatrix} e_{1t} \\ e_{2t} \end{bmatrix} \quad (11)$$

The findings obtained as a result of the analyses and their findings provided in the following sections.

2.2. Findings

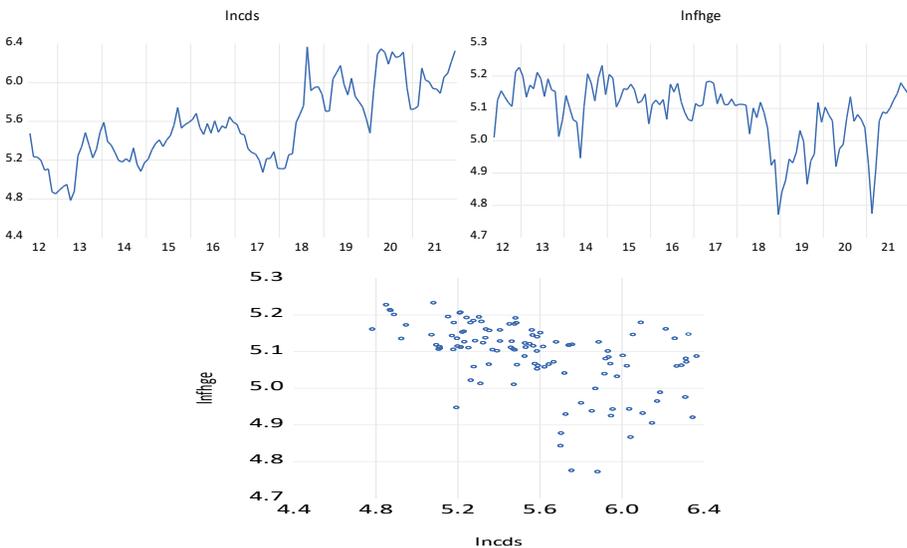
The relationship between the Financial Services Confidence Index and CDS risk premiums was examined using time series analyzes with structural breaks for the period of May 2012 and December 2021. In this context, logarithmic transformation was performed first. Descriptive statistics related to raw series are presented in Table 1.

Table 1. Descriptive Statistics

	LNFSICI	LNCDS	FSCI	CDS
Mean	5.088803	5.567072	162.8681	283.3780
Median	5.111686	5.529369	165.9500	251.9850
Maximum	5.232712	6.366505	187.3000	582.0200
Minimum	4.771532	4.784654	118.1000	119.6600
Std. Dev.	0.093097	0.395814	14.35834	118.3365
Skewness	-1.229976	0.287112	-0.972794	0.927223
Kurtosis	4.430064	2.242791	3.723487	2.932659
Jarque-Bera	39.13280	4.364981	20.82563	16.64360
Probability	0.000000	0.112760	0.000030	0.000243
Observation	116	116	116	116

The descriptive statistics related to raw data show that the average value is 162.86 for the FSCI variable and 283.37 for the CDS variable, and the standard deviation in the CDS series is higher than in the FSCI series. Kurtosis, skewness, and J-B values show that both of the series were not distributed normally. The logarithmically transformed series show that the average value was 5.08 for the FSCI variable and 5.56 for the CDS variable and according to kurtosis, skewness, and J-B values, the FSCI variable was not distributed normally while the CDS variable was distributed normally. The time graphs and dispersion diagrams related to the series before the unit root test are shown in Figure 1.

Figure 1. Time Graph of the Series and the Dispersion Diagram



Time graphs regarding the series show that they do not fluctuate around a certain average, they follow an upward and downward trend, and therefore it is safe to say that the series are not stationary. This observation should also be supported by unit root tests. The dispersion diagram shows a linear relationship between the series. The unit root test results for the FSCI variable are shown in Table 2.

Table 2. Unit Root Test Results for the FSCI Variable

FSCI		
Fourier ADF (Enders & Lee, 2012)	Constant and Trend	
	ADF-statistics	-3.530
	Fourier	1
	Lags	10
	CV (1%, 5%, 10%)	-4.950 -4.350 -4.050
Fourier LM test (Enders & Lee, 2012)	Constant and Trend	
	LM-statistics	-3.995
	Fourier	1
	Lags	10
	CV (1%, 5%, 10%)	-4.690 -4.100 -3.820
Fourier GLS test (Rodrigues & Taylor, 2012)	Constant and Trend	
	GLS-statistics	-4.083
	Fourier	1
	Lags	10
	CV (10%, 5%, 1%)	-4.771 -4.175 -3.879
D(FSCI)		
Fourier ADF (Enders & Lee, 2012)	Constant and Trend	
	ADF-statistics	-6.252
	Fourier	1
	Lags	2
	CV (1%, 5%, 10%)	-4.950 -4.350 -4.050
Fourier LM test (Enders & Lee, 2012)	Constant and Trend	
	LM-statistics	-10.155
	Fourier	1
	Lags	3
	CV (1%, 5%, 10%)	-4.690 -4.100 -3.820
Fourier GLS test (Rodrigues & Taylor, 2012)	Constant and Trend	
	GLS-statistics	-4.017
	Fourier	1
	Lags	3
	CV (10%, 5%, 1%)	-4.278 -3.647 -3.316
H0: there is unit root		

When the Fourier ADF, Fourier LM, and Fourier GLS test results on the FSCI series were examined at the level, it was found that the test statistical values were to the right of the critical values and the series was not stationary at the level. When the repeated test results by taking the first-order difference are examined, it was observed that the statistical values of the Fourier ADF, Fourier LM and Fourier GLS tests are to the left of the critical values and that stationarity was achieved. The results of the unit root test for the CDS variable are shown in Table 3.

Table 3. Unit Root Test Results for the CDS Variable

CDS		
Fourier ADF (Enders & Lee, 2012)	Constant and Trend	
	ADF-statistics	-3.605
	Fourier	1
	Lags	5
	CV (1%, 5%, 10%)	-4.950 -4.350 -4.050
Fourier LM test (Enders & Lee, 2012)	Constant and Trend	
	LM-statistics	-3.709
	Fourier	1
	Lags	0
	CV (1%, 5%, 10%)	-4.690 -4.100 -3.820
Fourier GLS test (Rodrigues & Taylor, 2012)	Constant and Trend	
	GLS-statistics	-3.919
	Fourier	1
	Lags	0
	CV (10%, 5%, 1%)	-4.771 -4.175 -3.879
D(CDS)		
Fourier ADF (Enders & Lee, 2012)	Constant and Trend	
	ADF-statistics	-6.592
	Fourier	1
	Lags	0
	CV (1%, 5%, 10%)	-4.690 -4.050 -3.710
Fourier LM test (Enders & Lee, 2012)	Constant and Trend	
	LM-statistics	-9.490
	Fourier	1
	Lags	1
	CV (1%, 5%, 10%)	-4.690 -4.100 -3.820
Fourier GLS test (Rodrigues & Taylor, 2012)	Constant and Trend	
	GLS-statistics	-9.904
	Fourier	1
	Lags	0
	CV (10%, 5%, 1%)	-4.771 -4.175 -3.879
H0: there is unit root		

When the Fourier ADF, Fourier LM, and Fourier GLS test results for the CDS series are examined at the level, it was found that the test statistic values are to the right of the critical values and the series is not stationary at the level and when the test results are repeated by taking the first-order difference, it was observed that the test statistic values are to the left of the critical values and the stationarity was achieved. The series should not be stationary so that the cointegration relationship can be examined. The series fulfill this assumption and the cointegration test results on break at constant, break at constant and trend, and break at trend are shown in Table 4.

Table 4. Cointegration Analysis Results

Level Shift					
(GH, 1996)					
H_0 : there is no cointegration					
Test	Break	Statistics	1%	5%	10%
ADF	April 2018	-5.135	-5.130	-4.610	-4.340
Zt	June 2018	-5.329	-5.130	-4.610	-4.340
Za	May 2018	-48.479	-50.070	-40.480	-36.190
(CiS & Sanso, 2006; AK, 2007)					
H_0 : there is cointegration					
Test	Break	Statistics	1%	5%	10%
SCols	August 2018	0.085	0.354	0.209	0.158
SC*(dols)	October 2019	0.074	0.354	0.209	0.158
Fraction	0.776				
(Tseng et al., 2016)					
H_0 : there is cointegration					
Test	Statistics		1%	5%	10%
Fourier Ccols	0.046		0.473	0.276	0.200
Freq. (Fols)	1.000				
F-stat (Fols)	10.990				
Fourier Cldols	0.043		0.473	0.276	0.200
Freq. (Fdols)	2.000				
F-stat (Fdols)	17.720				

Level Shift with Trend					
(GH, 1996)					
H_0 : there is no cointegration					
Test	Break	Statistics	1%	5%	10%
ADF	April 2018	-5.158	-5.450	-4.990	-4.720
Zt	April 2018	-5.346	-5.450	-4.990	-4.720
Za	August 2017	-49.022	-57.280	-47.960	-43.220
(CiS & Sanso, 2006; AK, 2007)					
H_0 : there is cointegration					
Test	Break	Statistics	1%	5%	10%
SCols	August 2018	0.101	0.164	0.106	0.084
SC*(dols)	June 2017	0.044	0.164	0.106	0.084
Fraction	0.534				
Trend Shift					
(Tseng et al., 2016)					
H_0 : there is cointegration					
Test	Statistics	1%	5%	10%	
Fourier CIols	0.026	0.163	0.099	0.078	
Freq. (Fols)	1.000				
F-stat (Fols)	12.415				
Fourier CIDols	0.047	0.163	0.099	0.078	
Freq. (Fdols)	2.000				
F-stat (Fdols)	17.825				

The GH (1996) test results for level shift show that the test statistic values are to the left of the critical value, because of which the null hypothesis is rejected. The break dates were identified as April 2018, May 2018, and June 2018. CiS & Sanso, (2006); AK (2007), and Tseng et al. (2016) test results with reverse hypothesis show that the test statistic values are to the right of the critical value and the null hypothesis is accepted. It was determined that the break dates in the CiS & Sanso, (2006); AK (2007) test were August 2018 and October 2019. A long-term cointegration relationship was found in all tests for break at constant.

The GH (1996) test results for the level shift with trend show that the test statistic values are to the left of the critical value, because of which the null hypothesis is rejected. The break dates were identified as August 2017 and April 2018. CiS & Sanso, (2006); AK (2007) test results show that the test statistic values were to the right of the critical value and the null hypothesis was accepted. The break dates were identified as June 2017 and August 2018. Both

tests showed that there is a long-term cointegration relationship between the series.

The Tseng et al. (2016) trend shift test results show that the test statistical values were to the right of the critical value and the null hypothesis was accepted. According to Tseng et al. (2016) break at trend test results, a long-term cointegration relationship was identified. All test results support each other. Cointegration test results on break at regime and break at regime and trend are shown in Table 5.

Table 5. Cointegration Analysis Results

Regime Shift					
(GH, 1996)					
H_0 : there is no cointegration					
Test	Break	Statistics	1%	5%	10%
ADF	August 2020	-5.614	-5.470	-4.950	-4.680
Zt	August 2020	-5.879	-5.470	-4.950	-4.680
Za	August 2020	-55.678	-57.170	-47.040	-41.850
(CiS & Sanso, 2006; AK, 2007)					
H_0 : there is cointegration					
Test	Break	Statistics	1%	5%	10%
SCols	July 2018	0.073	0.345	0.207	0.155
SC*(dols)	October 2019	0.075	0.345	0.207	0.155
Fraction	0.776				
(Hatemi-J, 2008)					
H_0 : there is no cointegration					
Test	Break	Statistics	1%	5%	10%
ADF	September 2018	-6.619	-6.503	-6.015	-5.653
Zt	July - September 2018	-6.756	-6.503	-6.015	-5.653
Za	July 2018	-69.042	-90.704	-76.003	-52.232
Regime and Trend Shift					
(GH, 1996)					
H_0 : there is no cointegration					
Test	Break	Statistics	1%	5%	10%
ADF	October 2018	-6.631	-6.020	-5.500	-5.240
Zt	September 2018	-6.776	-6.020	-5.500	-5.240
Za	September 2018	-69.042	-69.370	-58.580	-53.310
(CiS & Sanso, 2006; AK, 2007)					
H_0 : there is cointegration					
Test	Break	Statistics	1%	5%	10%
SCols	September 2018	0.024	0.096	0.066	0.054
SC*(dols)	September 2018	0.023	0.096	0.066	0.054
Fraction	0.664				

The results of the GH (1996) and Hatemi-J (2008) tests for the break at regime show that the statistical test values are to the left of the critical value and the null hypothesis is rejected. According to the GH (1996) and Hatemi-J (2008) tests the break dates are September 2018, July 2018, and August 2020. CiS & Sanso, (2006); AK (2007) test results show that the test statistic values were to the right of the critical value and the null hypothesis was accepted. The break dates of the model were identified to be July 2018 and October 2019. According to the results of three tests, a long-term cointegration relationship was found between the series.

The GH (1996) test results for the regime and trend shift show that the test statistical values are to the left of the critical value, because of which the null hypothesis is rejected. According to the GH (1996) test, the break dates are September 2018 and October 2018. CiS & Sanso, (2006); AK (2007) test results show that the test statistic values were to the right of the critical value and the null hypothesis was accepted. Break dates were found to be September 2018. According to the results of the test on the break at regime and trend, a long-term cointegration relationship was found between the variables. All test results support each other. After identifying the long-term cointegration relationship, FMOLS, DOLS and CCR analyses were performed for both at constant and at constant and trend to estimate the direction and coefficient of the relationship. The model was developed based on the dates of break at regime but a dummy variable just for October 2019 and August 2020 were included in the analyses since all break dates made the model insignificant. The test results are shown in Table 6.

Table 6. Results of the Cointegration Coefficient Estimation

Constand					
Test	Variable	Coefficient	Standard Error	t-statistics	Probability
FMOLS	LNFSI	-2.261408	0.465186	-4.861304	0.0000
	October 2019	0.537699	0.153087	3.512368	0.0006
	August 2020	-0.044222	0.183097	-0.241521	0.8096
	C	16.95936	2.372561	7.148125	0.0000
DOLS	LNFSI	-2.438754	0.545125	-4.473750	0.0000
	October 2019	0.533881	0.173081	3.084576	0.0026
	August 2020	-0.138644	0.202831	-0.683546	0.4958
	C	17.87097	2.781480	6.424988	0.0000
CCR	LNFSI	-2.296240	0.481436	-4.769568	0.0000
	October 2019	0.527918	0.153717	3.434353	0.0008
	August 2020	-0.038756	0.185018	-0.209470	0.8345
	C	17.13659	2.455031	6.980191	0.0000
Constand and Trend					
Test	Variable	Coefficient	Standard Error	t-statistics	Probability
FMOLS	LNFSI	-1.253206	0.455062	-2.753924	0.0069
	October 2019	0.295130	0.150154	1.965511	0.0519
	August 2020	-0.152245	0.154860	-0.983113	0.3277
	C	11.54900	2.364771	4.883771	0.0000
	@TREND	0.006027	0.001826	3.300012	0.0013
DOLS	LNFSI	-1.352894	0.589497	-2.294996	0.0238
	October 2019	0.294754	0.169393	1.740067	0.0850
	August 2020	-0.233975	0.179639	-1.302476	0.1958
	C	12.05197	3.061439	3.936701	0.0002
	@TREND	0.006222	0.001994	3.119543	0.0024
CCR	LNFSI	-1.282078	0.474873	-2.699831	0.0080
	October 2019	0.289694	0.147744	1.960784	0.0524
	August 2020	-0.149256	0.156345	-0.954658	0.3418
	C	11.69727	2.465226	4.744906	0.0000
	@TREND	0.006002	0.001803	3.329585	0.0012

According to the FMOLS method, a one-unit increase in the FSCI variable at the constant caused a 2.26-unit decrease in the CDS variable and a 1.25-unit decrease at the constant and trend. According to the DOLS method, a one-unit increase in the FSCI variable at the constant caused a 2.43-unit decrease in the CDS variable and a 1.35-unit decrease at the constant and trend. According to the CCR method, a one-unit increase in the FSCI variable at the constant caused a 2.29-unit decrease in the CDS variable and a 1.28-unit decrease at the constant and trend. The results support each other and it is safe to say that there is a negative relationship between the FSCI variable and the CDS premium. After estimating the direction and coefficient of the cointegration relationship between the variables, the causality relationship between the two was examined using the Cumulative Fourier-Frequency Toda & Yamamoto Causality Test, which takes into account structural break. The test results are shown in Table 7.

Table 7. Causality Analysis Results

Cumulative Fourier-Frequency Toda & Yamamoto Causality Test					
Causality	Wald	Asym. Prob.	Bootstrap Prob.	Lag	Frequency
LNFSICI=>LNCDS	10.956	0.533	0.510	12	3.000
LNCDS=>LNFSICI	33.600	0.001	0.000	12	3.000
H ₀ : there is no causality relationship					

The causality analysis test results show that the test probability values calculated from the FSCI variable to the CDS variable are greater than 0.05, which is the critical value. Therefore, the null hypothesis cannot be rejected. No causality relationship was found between the FSCI variable and the CDS variable. It is observed that the test probability values calculated from the CDS variable to the FSCI variable are less than 0.05, which is the critical value. Therefore, the null hypothesis is rejected and a one-way causality relationship was found from the CDS variable to the FSCI variable. After the causality analysis, the impact-response analysis was performed to examine how a random shock that may take place in the error term of the FSCI variable affects the CDS variable and a random shock that may take place in the CDS variable affects the FSCI variable. A standard VAR model was developed to perform the impulse-response analysis. October August 2019 and August 2020, which are the break dates, were added to the VAR model as dummy variables. The VAR model lag duration test results are shown in Table 8.

Table 8. VAR Lag Duration Determination Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	36.69255	NA	6.41e-06	-0.605418	-0.506079	-0.565139
1	419.6405	730.4378	7.18e-09*	-7.400751*	-6.904060*	-7.199361*
2	425.9701	11.60423	8.60e-09	-7.221669	-6.327625	-6.859167
3	436.6756	18.83367	9.51e-09	-7.123622	-5.832225	-6.600007
4	447.7472	18.65774	1.05e-08	-7.032355	-5.343606	-6.347629
5	463.1729	24.85250	1.07e-08	-7.021720	-4.935618	-6.175881
6	494.1041	47.54250*	8.23e-09	-7.298225	-4.814770	-6.291274
7	508.0037	20.33457	8.73e-09	-7.259328	-4.378521	-6.091265
8	524.9305	23.50946	8.81e-09	-7.276491	-3.998331	-5.947316

According to the lag test results, the optimal lag duration was determined as 1 according to the FPE, AIC, SC and HQ information criteria, and the VAR model results are shown in Table 9.

Table 9. VAR Model Results

	BIST	CDS
LNFSI (-1)	0.674053 (0.07212) [9.34692]	-0.175203 (0.18131) [-0.96633]
LNCDS (-1)	-0.045142 (0.02159) [-2.09131]	0.850330 (0.05427) [15.6686]
C	1.908174 (0.44132) [4.32378]	1.709317 (1.10955) [1.54055]
October 2019	0.005546 (0.02315) [0.23956]	0.133186 (0.05820) [2.28830]
August 2020	0.010246 (0.02436) [0.42057]	-0.054762 (0.06125) [-0.89403]

In order to perform an impact-response analysis on the VAR model, the model must be stationary and must not have an autocorrelation problem. The stationarity of the model was examined using inverse roots of the AR characteristic polynomial. The inverse roots of the AR characteristic polynomial are shown in Figure 2.

Figure 2. The Inverse Roots of the AR Characteristic Polynomial

Inverse Roots of AR Characteristic Polynomial

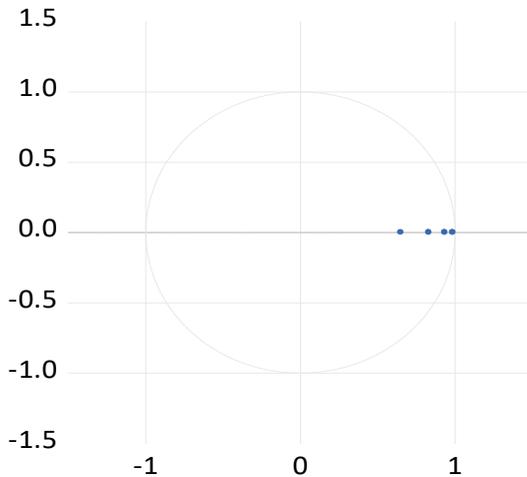
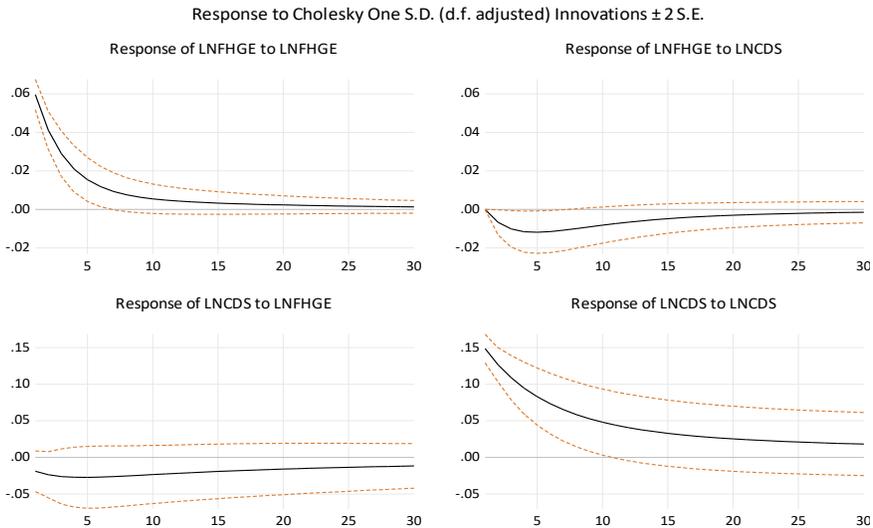


Figure 2 shows that the reverse AR roots are not outside the unit circle, so that the model is not stationary. The autocorrelation test results for the model are shown in Table 10.

Table 10. Autocorrelation-LM Test Results

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	12.16751	16	0.7324	0.758174	(16, 315.3)	0.7325
5	30.49846	16	0.0156	1.955832	(16, 315.3)	0.0156
10	19.84773	16	0.2272	1.251686	(16, 315.3)	0.2274
20	20.50318	16	0.1984	1.294351	(16, 315.3)	0.1986
30	17.02813	16	0.3838	1.069138	(16, 315.3)	0.3840

The test results in Table 10 show that the test probability value is greater than the critical value of 0.05, so there is no autocorrelation problem in the model. The impulse-response analysis was performed after the assumptions related to the model were tested and it was determined that the model was valid. The results are shown in Figure 3.

Figure 3. Impulse-Response Analysis Results

The impulse-response analysis results show that a shock in the FSCI series caused a negative shock in the CDS series starting from the first month which dissipated as of month 30 converging to zero while a shock in the CDS series caused a negative shock in the FSCI series starting from the first month which dissipated as of month 30 converging to zero.

3. Conclusion

The financial services confidence index reflects the economic situation in which financial institutions operate and the confidence in and expectations of the market. The decrease in confidence in the current economic situation reduces the confidence in the future and influences the investors' investment decisions. Similarly, CDS premiums increase as the uncertainty and risk increase in the economic system in which the parties operate, and therefore influence investor decisions as an indicator of the risks that may emerge in the market. Based on the assumption that the risks in the market and CDS premiums would decrease with increasing confidence of financial institutions in the market, the study aimed to investigate the long-term relationship between the financial services trust index and CDS risk premiums through time-series analyses with structural breaks.

In this context, the stationarity of the first series was tested using the Fourier ADF (Enders & Lee, 2012), Fourier LM (Enders & Lee, 2012), and Fourier GLS (Rodrigues & Taylor, 2012) tests, which are unit root tests with structural breaks, and it was determined that the series were not stationary. For

the cointegration analysis, the series should not be stationary at the level and the assumption was provided. Then, the cointegration relationship between the series are examined using the Gregory and Hansen (1996), CiS and Sanso (2006), Arai and Kurozumi (2007), Hatemi-J (2008) and Tseng et al. (2016) tests based on break at constant, break at constant and trend, break at trend, break at regime, and break at regime and trend, and a long-term cointegration relationship was identified according to all tests. After determining the long-term cointegration relationship, the coefficient and direction of the relationship were examined using FMOLS, DOLS, and CCR analyses by adding constant and constant and trend break dates. According to the FMOLS, DOLS and CCR tests, a negative relationship was found between the financial services confidence index and CDS premiums in both at constant and at constant and trend. Following the coefficient estimation, the causality relationship between the two was tested using the Cumulative Fourier-Frequency Toda & Yamamoto Causality Test, which takes into consideration the structural break, and a one-way causality relationship was identified from the CDS variable to the FSCI variable. After the causality analysis, the impact-response analysis was performed to examine how a random shock that may take place in the error term of the FSCI variable affects the CDS variable and a random shock that may take place in the CDS variable affects the FSCI variable. The impulse-response analysis showed that a shock in the FSCI series causes a negative shock in the CDS series starting from the first month, a shock in the CDS series causes a negative shock in the FSCI series starting from the first month, and these effects disappear in the long term.

Findings of the study suggest that increased confidence in the market lowers CDS premiums and there is risk transfer between the financial services confidence index and CDS premiums. The findings of the study are of significance for investors who can interpret the relationship between the financial services confidence index and CDS premiums and can feed it into their investment decisions.

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CHAPTER XIII

THE RELATION BETWEEN FOREIGN DIRECT INVESTMENTS AND CRISIS: PANEL UNIT- ROOT ANALYSIS ON SELECTED COUNTRIES

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1. Introduction

One of the investment types most triggered by the increase in global capital mobility with the increase in the effectiveness of neo-liberal policies is foreign direct investments. Reasons such as the existence of cheap labor and workforce in developing countries compared to developed countries, incentive regulations and practices regarding the investment environment, and the search for new markets by multinational companies direct foreign investors to this field. In this sense, host countries can gain advantages to benefit from the employment environment created, increase in the amount of output produced, familiarity with international production networks, and technology transfer.

Developing countries are struggling to liberalize their economic policies in to benefit from investment mobility. Developing countries, which offer opportunities that will attract foreign investors to attract foreign direct investments, constitute an important part of this mobility. Developing countries, which attracted 16% of total foreign direct investments from investment mobility in the first years of the 1990s, ensured the realization of foreign direct investments within their own structure at the rate of 34% in the mid-1990s and 54% in 2012

(UNCTAD, 2015: 302). In other respects, how major financial crises, which have the potential to turn into economic crises, affect foreign direct investments considered very valuable for developing countries are the subject of macro-economic studies. Although the effect mainly observed is not as obvious and sudden as short-term capital movements, foreign direct investments also enter a negative trend as the crisis gives signs of deepening. On the other side, studies on this subject demonstrate that factors such as the type of crisis, the dynamics of the crisis, the geography where the crisis originates, and the duration of its impact are determinative in the direction of foreign direct investments.

Financial globalization in developing countries has commenced to take shape, especially since the mid-1980s, with the increase in foreign direct investments, which have started to substitute portfolio investments and debt flows. Since this date, foreign direct investments have come to the forefront as the largest source of foreign financing for many developing countries (Kusek and Silva, 2017: 1). Therefore, issues such as which variables are affected by foreign direct investments, which are becoming increasingly important for the economies of developing countries, the course of the crisis, or the determination of the regulations that need to be made for attracting more investments to the country are attentively followed by researchers and policy makers.

In this study, the data set consisting of the amounts of foreign direct investment entering the country in the period of 1990-2019, which belong to six developing countries with similar economic dynamics, such as Brazil, South Korea, India, Mexico, Thailand, and Turkey, was analyzed using panel unit-root tests. First, the CADF unbreakable unit root test and then the PANKPSS unit root test, which allows two breaks, are applied to perform the stability analysis of the relevant data, and in this way, it is determined whether the impact of the shocks due to the crises in the foreign direct investment series in the countries examined is permanent or not. Secondly, the dates when the structural break is observed is determined by PANKPSS, and the changes in the volume of foreign direct investments in the breakout period and the following period are examined. Hence, it is discussed whether the Krugman (2000) hypothesis is valid or not, based on the structural break dates which coincide with the crises on the country basis and which are determined using current econometric methods.

The following sections of the study are designed as follows. In the second part, foreign direct investments and Krugman (2000) hypothesis are explained. In the third chapter, literature studies related to the subject are given. The fourth part, which includes the introduction of data set and methodology, is followed by the fifth part, which consists of analysis results. Finally, the study is completed with the conclusion part.

2. Foreign Direct Investments and the Krugman Hypothesis

By its nature and definition, foreign direct investment is an investment type that has the feature of creating jobs and employment among investment types and therefore it is considered more beneficial in macro-economic terms compared to short-term capital movements. Hence, developing countries, which have a foreign-exchange bottleneck and especially struggling with the problem of lack of savings, put forward various regulations in order to attract foreign direct investments to ensure their economic development.

The reason for the increase in the desire of developing countries to attract more foreign direct investments is the important advantages that these investments will provide to the economy. These advantages are expressed as follows (Azman-Saini et al., 2010: 1079):

- Increasing efficiency in the production process,
- Transfer of new technology,
- Learning new production processes, managerial skills, technical know-how in the local market, personnel training and international production networks.

The response of foreign investments, which are especially important for developing countries' economies, to global and regional economic crises has also been the subject of research. In this regard, Krugman (2000) investigated the foreign direct investment movements in the relevant regions in his study examining the effects of the Asian crisis that took place in 1997 and the Mexican-centered Latin American crisis in 1995 on foreign direct investments. In this study, it was stated that short-term capital moved in the direction of exit from the region with the effect of the crisis, but since the value of domestic firms and assets fell to a very cheap and affordable level, it was bought by multinational companies at no cost, according to the hypothesis he conceptualized with the name Fire-Sale FDI (sales at no cost). Contrary to expectations, it was seen that foreign direct investments were in an increasing trend with the acquisition of domestic firms and companies in the relevant regions by foreign companies.

The mechanisms whose economic crises affect foreign direct investments vary according to regions and countries. In addition, the source of the crises and the geography where they occur are also decisive in this sense. The crisis that emerged in the USA in 2008 and primarily affected developed countries, and the Asian crisis that emerged in 1997 within the developing countries show variability in terms of their impact on macro-economic variables. For instance, while foreign direct investments were negatively involved in some countries such as Indonesia during the Asian crisis, foreign direct investments increased

and were positively affected in some countries such as South Korea. Considering the reasons for this development, it is seen that South Korea has made a rapid transition to liberal policies and practices that will encourage foreign investors with the crisis (UNCTAD, 2009: 8).

International investments planned to be realized in the future may be affected by pessimistic crisis scenarios depending on their severity, size or type. However, long-term investments initiated generally tend to be completed as planned despite the outbreak of any crisis. In this context, some studies examining the relationship of the Asian crisis in 1997 and the Mexican crisis in 1994 with foreign investments have revealed that foreign direct investments follow a more stable course compared to portfolio investments (Krugman, 2000; Athukorala, 2003).

In a nutshell, although the studies carried out in the relevant field mostly state that the economic crisis affects foreign direct investments negatively, as other macro-economic variables, there are also studies showing that this situation may change depending on the type of crisis and the region in which it occurs. According to Krugman (2000) and Athukorala (2003), foreign direct investments may increase during and after the crisis. Demand contractions and financial bottlenecks, as well as the fact that the current crisis renders the national currency worthless can cause the depreciation of national assets in a country. In such a case, which means an opportunity for multinational companies in search of wealth, significant opportunities arise for foreign investors due to the low investment cost and the opportunity to seize market power (Krugman, 2000). Accordingly, the country group examined and the nature of the crisis should be especially taken into account to determine the impact mechanism and its results accurately.

3. Literature

Athukorala (2003), in line with the Krugman hypothesis (2000), stated that the possible negative impact of the 1997 Asian crisis on foreign direct investments was not seen in Thailand, Malaysia, Indonesia, Korea and the Philippines. Supporting her analysis with various foreign direct investment data and graphs, the author emphasized that multinational companies increased their foreign direct investments by purchasing domestic companies that became economically very suitable in the crisis environment, and reached findings supporting the Fire-Sale FDI approach.

Ucal et al. (2010) tested the relationship between financial crises and foreign direct investments in developing countries using a semi-parametric regression

approach. In the results obtained, it was seen that foreign direct investments increased in the period before the financial crisis, but tended to decrease in the years after the financial crisis.

Dornean et al. (2012) examined the effect of the 2008 crisis on foreign direct investments in Central and Eastern European countries between 1994 and 2011 with panel data analysis. From the results of the analysis, it was determined that the 2008 financial crisis directly affected foreign direct investments negatively.

Dornean and Oanea (2015) investigated how foreign direct investments in Central and Eastern European countries were affected by the 2008 global and economic crisis for the period 2000-2013. According to the results obtained from the study, in which the multivariate regression model based on Dynamic Panel Data methodology was used, it was seen that factors such as infrastructure, crisis, human capital and economic stability had significant effects on foreign direct investments. As the most important factor, it was found that the crises affected negatively.

Stoddard and Noy (2015) tested Krugman's (2000) Fire-Sale hypothesis in their studies on the course of foreign direct investment inflows to developing countries in the context of financial crises and tried to describe the dynamism of foreign direct investment inflows with the economic crisis. The results obtained from the study showed that financial crises have a strong and negative effect on foreign direct investment inflows. Consequently, the authors could not find evidence for the validity of the Fire-Sale FDI hypothesis for the respective countries.

Ersoy and Erol (2016) used dynamic panel data analysis method for 15 European Union member countries in their studies to investigate the effects of crises on foreign direct investments. The main finding of the study is that the Euro-zone debt crisis in 2010 increased foreign direct investments in the relevant countries.

Hasli et al. (2017) investigated how financial crises and macro-economic factors affected foreign direct investments in 23 developing countries for the period 1993-2013. According to the analysis findings, it was determined that the 2008 crisis had a positive effect on foreign direct investment inflows. This finding also supports the Krugman (2000) hypothesis (Fire-Sale FDI).

Castro and Campos (2017) analyzed the data of Asian and Latin American countries with the dynamic panel method in order to test the effect of international financial crises on foreign direct investments. From the results of the study, it was determined that the 2008 crisis affected multinational companies negatively and reduced foreign direct investments in the relevant countries. In addition, it

was revealed in the study that the effect on regions differs and the decrease in foreign direct investment in Asian countries is higher than in Latin American countries. In the post-crisis period, it was observed that the negative effect disappeared and foreign direct investments increased in both regions.

4. Data and Methodology

4.1. Data

In the study, it is aimed to examine the foreign direct investments coming to developing countries such as Brazil, South Korea, India, Mexico, Thailand and Turkey with the unit root tests with and without breaks and to determine whether there is a crisis connection of foreign direct investments. For this purpose, the amount of foreign direct investment coming to the countries representing foreign direct investments (FDI) has been handled and these values have been calculated in US dollars over current prices. The study period covers the years 1990-2019 and consists of annual data. The fact that capital movements started to gain momentum in the 1990s and that accessible FDI data were available until 2019 were decisive in limiting the time period. FDI data was obtained from the UNCTADSTAT¹ database of the United Nations Conference on Trade and Development (UNCTAD). E-views 9 and Gauss 20 programs were used for econometric analysis. The panel data consists of a total of 180 observations with time dimension ($T=30$) and cross-section dimension ($N=6$).

4.2. Methodology

Panel data analysis method is more advantageous compared to time series analysis methods with its features such as providing the opportunity to reach more observations, considering heterogeneity, reducing the possibility of biased results, controlling the omitted variable and encountering the problem of multicollinearity less (Baltagi, 2005: 4-9; Hsiao, 2007: 3-6). In addition to the advantages it offers, cross-section dependency is one of the main issues to be considered in panel data analysis. Considering the relations between countries with globalization, development of foreign trade and liberalization, it is highly likely that other countries will be affected by the shock that occurs in any of the countries. Another issue to be considered is checking whether the slope coefficients are homogeneous (Menyah et al., 2014: 389).

In case of cross section independence, first generation unit root tests are applied, and in case of cross section dependence, second generation unit root tests

¹ <https://unctadstat.unctad.org/EN/Index.html>.

are applied (Baltagi, 2008: 284). In the first generation unit root tests, there is a distinction between homogeneous and heterogeneous. While Levin et al. (2002), Breitung (2005), Hadri (2000) unit root tests are employed on homogeneous panels; Im et al. (2003), Maddala and Wu (1999), Choi (2001) unit root tests are widely used on heterogeneous panels. Major second generation unit root tests are Breuer et al. (2002) SURADF, Bai and Ng (2004) Panic, Smith et al. (2004) Bootstrap-IPS, Pesaran (2006) CADF. On the other hand, Charemza and Deadman (1997) state that although there is a structural break, tests that do not take into account the structural breaks yield biased results. Carrion-i Silvestre et al. (2005) developed the PANKPSS test in order to eliminate this deficiency.

The model with a constant was preferred during the modeling phase for the analysis of FDI series. The reason for this is that the structural break dates of the foreign direct investment series of the countries can be obtained more clearly in a model with a constant. Because trend-containing models capture and represent downward or upward movements by nature, break dates may be less obvious as a result of the analysis.

4.2.1. Cross-Section Dependency and Homogeneity Test

Breusch and Pagan (1980) LM test, which is used to test the cross-sectional dependence, is preferred when the time dimension (T) is larger than the cross-section dimension (N), and the LM test statistic is expressed as:

$$LM = T \sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{\rho}_{ij}^2 \tag{1}$$

$\hat{\rho}_{ij}$, is the sample estimate of the bidirectional correlation of the error term for each *i* based on the OLS estimate. For large panels with $T \rightarrow \infty$ and $N \rightarrow \infty$, Pesaran (2004) developed a scaled version of the LM test. This test gives effective results for very large N and T, however, significant distortions occur with a large N and a small T. CD_{LM} test statistic is shown as:

$$CD_{LM} = \left(\frac{1}{N(N-1)} \right)^{1/2} \sum_{i=1}^{N-1} \sum_{j=i+1}^N (T\hat{\rho}_{ij}^2 - 1) \tag{2}$$

The CD_{LM} test is normally distributed with $N(N-1)/2$ degrees of freedom and asymptotic chi-square property. On the other hand, Pesaran (2004) CD test and Pesaran et al. (2008) LM_{adj} tests have been proposed because of the need for a cross-section dependency test that can be applied in panels where the cross-section size (N) is relatively larger than the time dimension (T).

Testing the homogeneity of the slope coefficients dates back to Swamy (1970). While this test gives robust results in panels where N is smaller than T, it gives biased results in panels where N is larger than T. At this point, the Delta ($\tilde{\Delta}$) test developed by Pesaran and Yamagata (2008) is a homogeneity test based on the Swamy (1970) test and is explained as follows:

$$\hat{S} = \sum_{i=1}^N (\hat{\beta}_i - \hat{\beta}_{WFE})' \frac{X_i' M_\tau X_i}{\hat{\sigma}_i^2} (\hat{\beta}_i - \hat{\beta}_{WFE}) \tag{3}$$

$$\hat{\sigma}_i^2 = \frac{(y_i - X_i \hat{\beta}_i)' M_\tau (y_i - X_i \hat{\beta}_i)}{(T - k - 1)} \tag{4}$$

β_i represents the pooled OLS, $\hat{\beta}_{WFE}$ represents the weighted aggregate effect of the defined slope coefficients, M_τ , represents the unit matrix of T, and $\hat{\sigma}_i^2$ the estimator of σ_i^2

$$\hat{\beta}_{WFE} = \left(\sum_{i=1}^N \frac{X_i' M_\tau X_i}{\hat{\sigma}_i^2} \right) \tag{5}$$

Swamy statistic (\hat{S}), exhibits a chi-square distribution property asymptotically with $k(N-1)$ degrees of freedom in the condition that N is constant and T is infinite. The standardized distribution statistics for the $\tilde{\Delta}$ ve $\tilde{\Delta}_{adj}$ tests are as follows:

$$\tilde{\Delta} = \sqrt{N} \left(\frac{N^{-1} \hat{S} - k}{\sqrt{2k}} \right) \tag{6}$$

As long as the $(N, T) \rightarrow \infty$ condition and $\sqrt{N/T} \rightarrow \infty$ and the error terms have normal distribution, the $\tilde{\Delta}$ test is asymptotically standart normally distributed. While the $\tilde{\Delta}$ test is a test statistic suitable for small sample characteristics, the $\tilde{\Delta}_{adj}$ test provides an updated test statistic for large sample characteristics. The adjusted $\tilde{\Delta}_{adj}$ test statistic is calculated as follows:

$$\tilde{\Delta}_{adj} = \sqrt{N} \left(\frac{N^{-1} \hat{S} - E(\tilde{z}_{iT})}{\sqrt{Var(\tilde{z}_{iT})}} \right); E(\tilde{z}_{iT}) = k, var(\tilde{z}_{iT}) = \frac{2k(T - k - 1)}{T + 1} \tag{7}$$

According to the test statistics obtained;

$H_0 : \beta_i = \beta$ suggests homogeneity of slope coefficients for all i 's,

$H_A : \beta_i \neq \beta$ suggests heterogeneity of slope coefficients for $i \neq j$.

4.2.2. CADF Unit Root Test and Panel KPSS Structural Break Stationarity Test

Pesaran’s (2007) CADF unit root test, also referred to as Cross-Sectionally Augmented Dickey-Fuller, was developed by integrating cross-section averages of lagged levels into ADF regression. One of the important features of this test is that it presents both cross-section results and panel results together. Another important feature is that it gives more powerful and consistent results even in panels with small time (T) and section size (N) and can be used regardless of T>N and N>T conditions.

The dynamic heterogeneous panel data model is expressed as:

$$y_{it} = (1 - \vartheta_i)\mu_i + \vartheta_i y_{i,t-1} + u_{it}, i = 1, 2, \dots, N; t = 1, 2, \dots, T \tag{8}$$

The single factor error term is shown as:

$$u_{it} = \gamma_i f_t + u_{it} \tag{9}$$

In the single factor error term, f_t , represents the unobserved common effect, and $u_{i,t}$ represents the individual-specific error term.

When equations (8) and (9) are taken together, equation (10) is obtained:

$$\Delta y_{it} = \alpha_i + \beta_i y_{i,t-1} + \gamma_i f_t + u_{it} \tag{10}$$

In equation (10), $\alpha_i = (1 - \vartheta_i)\mu_i$ has the equations $\beta_i = -(1 - \vartheta_i)$ ve $\Delta y_{it} = y_{it} - y_{i,t-1}$. In this case, provided that $\vartheta_i = 1$, the unit root test hypotheses are:

$$H_0 : \beta_i = 0 \text{ for all } i\text{'s, and,}$$

$$H_A = \beta_i < 0, i=1,2,\dots, N_i, \beta_i = 0, i = N_1 + 1, N_1 + 2, \dots, \lceil N$$

CADF regression is calculated as:

$$\Delta y_{it} = \alpha_i + b_i y_{i,t-1} + c_i \bar{y}_{t-1} + d_i \Delta \bar{y}_t + e_{it} \tag{11}$$

CIPS (Cross-Sectionally IPS) panel unit root statistics are obtained by averaging the unit root statistics of all cross-sections in CADF regression:

$$CIPS(N, T) = t\text{-bar} = N^{-1} \sum_{i=1}^N t_i(N, T) \tag{12}$$

The $t_i(N, T)$ in the CIPS formula stands for the CADF statistics for each cross-section calculated with the t-statistic of the $y_{i,t-1}$ coefficient in the CADF regression number (11) (Pesaran, 2007: 276).

Panel KPSS (PANKPSS) unit root test which was developed by Carrion-i Silvestre et al. (2005) is an extended version of Hadri's (2000) KPSS test, and can be used in cases where there is cross-section dependence and structural breaks. At the same time, this test is a panel stationarity test method that allows different numbers of structural breaks on different dates for each cross-sectional unit. The test model is shown as follows:

$$y_{it} = \alpha_{i,t} + \beta_{i,t}t + u_{i,t} \tag{13}$$

$\alpha_{i,t}$ in model 13 is expressed as :

$$\alpha_{i,t} = \sum_{k=1}^{m_i} \theta_{i,k}D(T_{b,k}^i)_t + \sum_{k=1}^{m_i} \gamma_{i,k}DU_{i,k,t} + \alpha_{i,t-1} + e_{i,t} \tag{14}$$

Here, $u_{i,t} \sim i.i.d. (0, \sigma_{v,i}^2)$ ve $\alpha_{i,0} = \alpha_i$ and represent a constant. D and DU in the equation are dummy variables and are defined as:

$$D(T_{b,k}^i)_t = 1, t = T_{b,k}^i + 1; 0 \text{ otherwise.}$$

$$DU_{i,k,t} = 1, t > T_{b,k}^i; 0 \text{ otherwise.}$$

$T_{b,k}^i$; Tb represents the break point, i symbolizes the cross section unit and k ($k = 1, \dots, m_i, m_i \geq 1$) shows the number of breaks since it is expressed as m .

It is assumed that the error terms $e_{i,t}$ and u_{it} in equations (13) and (14), respectively, are distributed independently of each other, and the null hypothesis representing the stationarity of the series is $\sigma_{v,i}^2 = 0, \forall i = 1, \dots, N$. In the context of this hypothesis, when equations (13) and (14) are considered together, they are arranged as follows:

$$y_{i,t} = \alpha_i + \sum_{k=1}^{m_i} \theta_{i,k}DU_{i,k,t} + \beta_i t + \sum_{k=1}^{m_i} \gamma_{i,k}DT_{i,k,t}^* + u_{i,t} \tag{15}$$

In Equation (15), the dummy variable is $DT_{i,k,t}^* = t - T_{b,k}^i$ when $t > T_{b,k}^i$ and 0 otherwise. This equation shows the individual break effects that show the changes in the mean due to the structural break, the non-permanent i.e. temporary effects in the case of $\beta_i \neq 0$, the non-permanent effects of the structural break in the case of $\gamma_{i,k} \neq 0$, that is, the change of the individual trends in the panel.

Equation (15) regards the following three factors: 1) Structural breaks in the series have different effects on each series and these effects are calculated with $\theta_{i,k}$ and $\gamma_{i,k}$. 2) Break dates may occur in a different time period for each series that makes up the panel. 3) The number of breaks in the panel may differ for each cross-section unit.

The test statistic used to test the stationarity null hypothesis, assuming that the long-term variance is constant, is introduced as follows:

$$LM(\lambda) = N^{-1} \sum_{i=1}^N \left(\hat{\omega}_i^{-2} T^{-2} \sum_{t=1}^T \hat{S}_{i,t}^2 \right) \tag{16}$$

In Equation (16), $\hat{S}_{i,t} = \sum_{j=1}^t \hat{\varepsilon}_{i,j}$, $\omega_i^2 = \lim_{T \rightarrow \infty} T^{-1} E(S_{i,T}^2)$, $i = 1, \dots, N$ and $\hat{\omega}_i^2$ stands for a consistent estimator of the long-run variance of $u_{i,t}$. This test equation is based on the assumption that the long-run variance among individuals is homogeneous. On the other hand, the situation where the long-term variance varies between cross-section units is expressed as follows:

$$LM(\lambda) = N^{-1} \sum_{i=1}^N \left(\hat{\omega}^{-2} T^{-2} \sum_{t=1}^T \hat{S}_{i,t}^2 \right) \tag{17}$$

In Equation (17), we have $\hat{\omega}^2 = N^{-1} \sum_{i=1}^N \hat{\omega}_i^2$. The symbol λ means that the LM test depends on the structural break dates. The λ_i vector for each cross-section unit is standardized as:

$$\lambda_i = (\lambda_{i,1}, \dots, \lambda_{i,m_i})' = (T_{b,1}^i/T, \dots, T_{b,m_i}^i/T)' \tag{18}$$

In Equation (18), T represents the relative position of the break dates occurring over the entire time frame (Carrion-i Silvestre et al., 2005: 160-162).

The PANKPSS test allows for a maximum of five breaks and the structural break dates are determined at the point where the error sum of squares is minimum by following Bai and Perron (1998). Bai and Perron (1998) suggest two different processes for this process. The first of this process is based on the Bayesian information criterion and modified Schwarz information criterion put forward by Liu et al.(1997), while the other is based on the successive calculation of the F statistic to determine the number of structural breaks (Carrion-i Silvestre, 2005: 845).

5. Analysis Results

Since the time dimension (T=30) is larger than the cross-sectional dimension (N=6) in the study, Breusch and Pagan (1980) LM and Pesaran (2004) CD_{LM} cross-sectional dependence (CSD) tests were used in accordance with this condition. In Table 2, the results of the analysis of CSD and homogeneity tests for the FDI variable are given.

Table 1: Cross Section Dependency and Homogeneity Test Analysis Results

CSD Test		Homogeneity Test	
LM	CD _{LM}	Delta	Delta _{adj}
35.821 [0.002]***	3.801 [0.000]***	2.001 [0.023]**	2.109 [0.017]**

Note: *** and ** represent 1% and 5% significance level, respectively. Values in square brackets are probability values. The lag length is taken as 3.

According to the results of the analysis of the CSD test in Table 1, the main hypothesis that there is no CSD for the FDI variable was rejected at 1% significance level, and it was observed that the CSD exists. In other words, it was concluded that a shock in the FDI variable of any of the countries included in the analysis was effective on other countries. According to the results of the homogeneity test analysis, the main hypothesis was rejected at the 5% significance level and the alternative hypothesis, which means that the slope coefficients differed between the units, was accepted. As a result, it has been determined that the FDI variable has a heterogeneous distribution, that is, the effect of the shock differs among countries.

Table 2: CADF Unit Root Test Analysis Results

Countries	FDI		Critical Values		
	L.L	CADF Statistics	10%	5%	1%
Brazil	1	-2.25	-2.97	-3.36	-4.11
South Korea	1	-3.86	-2.97	-3.36	-4.11
India	1	-2.38	-2.97	-3.36	-4.11
Mexico	1	-2.78	-2.97	-3.36	-4.11
Thailand	1	-3.49	-2.97	-3.36	-4.11
Turkey	1	-3.02	-2.97	-3.36	-4.11

Note: The Schwarz information criterion was used to calculate the lag lengths (L.L) and the maximum lag length was taken as 3. The critical table values for T:30 and N:6 were obtained from the study of Pesaran (2007). The analysis results show the level values for the model with constant. 5% significance level was taken as basis for the analysis results.

The CADF unit root test analysis results are presented in Table 2. According to the CADF statistics, the basic hypothesis, which asserts that there is a unit root, could not be rejected for Brazil, India, Mexico and Turkey, and it was seen that the FDI variable contains a unit root at level. On the other hand, for Thailand

and South Korea, the null hypothesis was rejected at the 5% significance level, and it was concluded that the FDI variable was stationary. In the context of the analysis results, it has been determined that the effect of shocks is permanent for Brazil, India, Mexico and Turkey, that is, the FDI variable cannot come back to the equilibrium in the long run. Conversely, it has been determined that the effect of shocks is not permanent for Thailand and South Korea, and the FDI variable reaches its long-term equilibrium.

**Table 3: Analysis Results of PANKPSS Stationarity
Test with Structural Breaks**

Countries	FDI	Critical Values			Break Dates	
	PANKPSS Test Stats.	10%	5%	1%	T ₁	T ₂
Brazil	0.044	0.321	0.461	0.816	1996	2009
South Korea	0.234	0.322	0.432	0.792	1998	-
India	0.481	0.36	0.501	0.894	2005	2014
Mexico	0.155	0.336	0.458	0.873	1999	2012
Thailand	0.12	0.328	0.422	0.798	1997	-
Turkey	0.07	0.349	0.464	0.836	2004	2008

Note: Critical values of panel KPSS test statistics were reached with 5000 iterations using bootstrap. The number of breaks was taken as 2. T1 and T2 show the break dates. Analysis results show level values. As the test model, the model that allows the structural break in the constant was chosen. 5% significance level was taken as basis for the analysis results.

In Table 3, the results of the PANKPSS stationarity test analysis, which take into account structural breaks, are given. Accordingly, the null hypothesis was not rejected at any critical level for all of the countries included in the analysis, and it was determined that the FDI series was stationary for all of the countries. According to the findings, it has been concluded that the effect of shocks is temporary in the model, in which structural breaks are taken into account for Brazil, South Korea, India, Mexico, Thailand and Turkey, and the FDI variable comes to the long-term equilibrium in these countries.

As of the analyzed period, one break was detected in Thailand and South Korea, and two in Brazil, India, Mexico and Turkey. It was observed that the breaking dates for Thailand was 1997, South Korea was 1998, Brazil were 1996 and 2009, India were 2005 and 2014, Mexico were 1999 and 2012, Turkey were 2004 and 2008. Within this scope, it is seen that the breaking dates differ

according to the countries and some of the determined dates are similar to the crisis periods mentioned in the literature.

6. Conclusion

In the study, the stagnation of foreign direct investment data of six developing countries with similar economic structures and their course in the structural break dates were examined, and whether the Krugman (2000) hypothesis is valid for countries whose break dates coincide with the crisis period was investigated. According to the results obtained from the CADF test, foreign direct investments in four countries (Brazil, India, Mexico and Turkey) contain unit root. In other words, the effect of shocks is permanent in these countries, namely, the FDI variable cannot return to its equilibrium in the long run. On the other hand, the foreign direct investment variable belonging to Thailand and South Korea is stationary at the level according to the CADF test result. It is noteworthy that the series was stationary even if structural breaks were not observed in Thailand and South Korea, despite the 1997 Asian crisis in the analyzed period. The fact that the FDI variable was steady despite the crisis in these countries shows that, contrary to expectations, the crises did not have a diverting effect from the average of foreign direct investments. This can be interpreted as the first indication that the Krugman Hypothesis (2000) is valid in Thailand and South Korea. According to the results of the PANKPSS, which was applied afterwards and determined the structural breaks externally, the series of foreign direct investments become stationary in all countries. Obtaining the stagnation result through the inclusion of experienced positive or negative shocks in the model can be considered as an expected result. Another important issue at this stage is the structural break dates obtained as a result of the PANKPSS test. While the breaking dates due to positive shocks, which are parallel to the rise of their economies, are observed in some countries, the structural break dates caused by the crises are obtained in some countries. Using these results, the structural break dates in the literature were confirmed by current test techniques, other break dates caused by the crises were revealed, and the reference dates required for the Krugman (2000) hypothesis were determined.

As a result of the PANKPSS test, the years 1996 and 2009 were first determined as the break dates in Brazil. Foreign direct investments that increased in 1996 and later can be considered as a positive shock. In 2009, with the effect of the 2008 crisis, foreign direct investments dropped sharply from 45 billion dollars to 26 billion dollars. Secondly, when we examined South Korea, it was

seen that the only breaking date was 1998. Foreign direct investment in this country, which was 3.3 billion dollars in 1997, reached 6 billion dollars in 1998. This situation, which is also the subject of the study of Krugman (2000), shows that the Fire-Sale FDI hypothesis is valid in South Korea. Despite the Asian crisis in 1997, contrary to expectations, the volume of foreign direct investment in South Korea increased. In India, the third country, the years 2005 and 2014 were determined as the breaking dates. These dates can be characterized as periods when positive shocks were experienced for India as a country that was in a rising period and nominated for the largest economies of the future, and when the volume of foreign direct investment increased at a high rate. In addition, since the structural break dates did not coincide with any crisis period, India was excluded from the Krugman analysis in the study. Breaking dates for Mexico, the fourth country, are 1999 and 2012. These breakout dates obtained as a result of the test are the years when foreign direct investments increased as an effect of positive shocks. The main point that draws attention here is that the 1994 Mexican crisis was not determined as the breaking date. Foreign direct investment of 10.9 billion dollars in 1994 decreased to only 9.5 billion dollars in the next period, and this rate of decrease further reduced in the following year. The fact that this Mexican-specific crisis in 1994 did not appear as a break in the model and that there was no sharp decrease in investments again points to the hypothesis of Krugman (2000). It can be stated that the Fire-Sale FDI activity during the crisis in this country acts as a balancing element by preventing sudden decreases.

In Thailand as the fifth country, the only break date was 1997. The fact that this date, when the 1997 Asian crisis arose, emerged as the breaking date as a result of the analysis, coincides with the expectations. On the other hand, it is quite remarkable that foreign direct investment inflows, which were 3.8 billion dollars in 1997, reached 7.5 billion dollars in 1998. Therefore, it can be stated that Thailand stands out as one of the countries where the Fire-Sale FDI hypothesis is most clearly seen over the 1997 crisis. Finally, when the results for Turkey are evaluated, the years 2004 – 2008 appear as the breaking dates. 2004 can be interpreted as a positive shock year for Turkey, which was on the rise in terms of macro-economic indicators. It is because the volume of foreign direct investments entering the country increased from 2.7 billion dollars to 10 billion dollars. As a crisis period, 2008 affected Turkey as well as the whole world, and the investment volume, which was 19.8 billion dollars, decreased to 8.5 billion dollars in 2009. Although net decreases were observed in the volume of foreign direct investment in all the countries analyzed during the 2008 crisis, according to

the results of the analysis, it was seen that the years 2008-2009 were determined as a structural break period only for Brazil and Turkey. Therefore, in the context of the 2008 crisis, it is concluded that the Krugman (2000) hypothesis is not valid in these two countries and cannot be tested in other countries. Considering the 1997 crisis, it is seen that the Krugman (2000) hypothesis is valid as a result of the analysis and data evaluation made in South Korea, Mexico and Thailand.

As a result, although it is seen that the economic crises differ according to the regions and countries, it has been revealed that the effect of the crises on foreign direct investment varies. Contrary to expectations, economic crises in some countries do not cause structural breaks and can have an increasing effect on foreign direct investments. For example, countries such as South Korea and Thailand have succeeded in turning crisis periods into advantages by focusing on liberal policies aimed at increasing investments in times of crisis. Therefore, developing countries, which are almost the favorites of multinational companies in terms of investment in terms of providing cheap labor and new markets, can attract more foreign direct investment even in times of crisis, by implementing policies that are facilitating and encouraging for foreign investments.

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CHAPTER XIV

EVALUATION OF THE EFFECT OF OCCUPATIONAL HEALTH AND SAFETY PRACTICES ON PERFORMANCE AND ORGANIZATIONAL COMMITMENT OF EMPLOYEES IN THE CONTEXT OF LITERATURE

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1. Introduction

Employees and human resources were considered as significant tools around the late 19th century, and they were given the attention they deserved. Human resources techniques used to be limited to those that dealt with employee recruiting, performance management, training, organizational development, organizational culture, and outreach. Human resources practices have been established day by day, and studies have been conducted on them, in order to determine the effectiveness of these practices and their impact on employees. Occupational health and safety is the most essential indication of human resource effectiveness, indicating whether or not employees feel comfortable, peaceful, safe, and healthy at work.

Occupational health and safety refers to the maintenance of the most appropriate physiological and psychological state in the workplace in order to ensure that the employee's physical, mental, and social well-being is at its

highest level in all jobs, to maintain this welfare, to prevent deterioration in working conditions, and to protect the employee's health from any danger. In other words, the aim of occupational health and safety is to keep employees safe while also protecting their health. Occupational accidents and diseases in the workplace are caused by the rapid development of the mechanization process, the increase in the number of chemicals used in production, changes in environmental conditions, and the increase in the number of employees that come with industrialization. Work accidents and occupational diseases affect the mental and physical health of employees and even cause them to lose their lives. The advancement of technology in the process and the need for trained human resources instead of a large number of employees have forced organizations to employee-centered management. Therefore, occupational health and safety has evolved towards the protection of the individual rather than the continuation of the work. Therefore, it is intertwined with the science of management and organization and compelled the organizations to work in this direction.

Increasing communication and educational opportunities are forcing countries to become social states. Countries are seeking to provide their inhabitants with conditions that will make them privileged over others, or at the very least provide them the same rights as others, in the face of intense globalization, and many rules are being made for this purpose. Working life, which is the most essential aspect of people's and societies' lives, is also determined by these regulations (Seyhan, 2009). Occupational health and safety is no longer limited to the actions conducted by organizations. Many countries are developing various mandatory measures to protect their citizens' health and safety at work. With the participation of international organizations and the approval of countries, these policies become global. Therefore, occupational health and safety issues have become a necessity rather than a choice for organizations.

According to studies, occupational health and safety affects a wide range of concerns in addition to the job's continuity and the employee's safety. Among these, organizational commitment holds a crucial role. When individuals' goals align with the aims of the company, it produces highly favorable results for the organization. As a result, every company seeks to develop organizational commitment in its employees. Organizations avoid situations where there is a lack of organizational commitment. Employees that are not committed to the organization will not be able to achieve the desired productivity. Occupational health and safety covers a wide range of topics that will boost corporate commitment. Furthermore, employee loyalty to the organization is one of the factors that determine workplace safety.

Occupational health and safety affects the functioning of organizations in the working life of our time. These effects arise from both the self-development needs of the enterprises and the legal obligations. Therefore, occupational health and safety practices play a key role in the success of the business and have some outputs.

Within the context of the relevant literature, the purpose of this study is to look into the impact of occupational health and safety measures on employee job performance and organizational commitment. Since this is a new study, it is expected to contribute to the relevant literature in terms of managers/employers and practitioners.

2. Occupational Health and Safety

In this title, the conceptual framework of occupational health and safety has been examined in detail within the scope of the purpose of the research.

2.1. Definition of Occupational Health and Safety

The right to life is the most fundamental of all rights. However, 2.3 million people are deprived of this right each year as a result of work-related injuries and disorders. Employees suffer significant injury in 350,000 cases of industrial accidents and 2 million cases of occupational diseases each year, according to a preliminary estimate. This is probably only the tip of the iceberg, given most underdeveloped countries lack data on non-fatal diseases and injuries (Pala, 2005). Occupational injuries alone, through both disability and death, steal the healthy life expectancy of more than 10 million people and cost 8% of unintentional deaths worldwide. Poor occupational health and reduced working capacity can cause losses of up to 20% of a country's Gross National Product. Globally, occupational deaths and diseases can cause an estimated 4% loss of Gross Domestic Product (Yılmaz, 2001).

According to the World Health Organization (WHO), work-related diseases account for a large portion of the population's overall disease rate (WHO, 2006, p. 1). While this claim is frightening, it is not unexpected. Since workers account for half of the world's population and contribute to modern society's economic and social values (WHO, 2006). People do, in fact, spend a major portion of their lives at work, frequently in occupations that give their lives meaning and structure (Jahoda, 1982). Since employment is such an important part of many people's lives, it is widely acknowledged that they should work in a safe and healthy environment. According to the "Health for All" principles of the World Health Organization and the Occupational Safety and Health (No.155)

and Occupational Health Services (No.161) contracts of the International Labor Organization (ILO), the type of sector, size of the company, task and occupation type independently, each employee has the right to access safety and health services. The Rio Declaration on the environment and development also states that “humans are at the center of sustainable development concerns and they have the right to a healthy and productive life in harmony with nature”. Obviously, the opportunity to have a safe and healthy working environment is an important part of a sustainable future.

Occupational health has not received much attention in sustainable development programs to date, particularly in developing nations where the majority of people work in agriculture, forestry, and mining. Despite the fact that the right to health and safety in the workplace is stipulated in many agreements of the WHO, ILO and the United Nations, no country has successfully achieved this goal for all its employees. Therefore, occupational health infrastructure and programs must be further developed in any country that uses an illegal approach to meet current legal requirements.

The concept of health is a positive concept that includes social and personal resources as well as physical abilities. It is conceptualized as having and achieving goals, meeting personal needs, and coping with daily life. The World Health Organization defines health not only as the absence of a disease, but as a state of physical, mental and social well-being (WHO, 2014) and sees it as a whole. A unified definition of occupational health approved by the ILO and WHO is as follows:

It should be aimed to raise the physical, mental and social well-being of all employees in the profession to the highest level and to keep them there, to prevent employees from leaving the job due to health problems arising from work conditions, to protect the employees in the workplace from risks that may adversely affect their health, to place and use them in the suitable environment to work in accordance with their physiological and psychological abilities, to summarize, to adapt the work to the employees and the employees to the work (WHO, 1994).

For this reason, occupational health has gradually evolved from a risk-centered, single discipline-dependent activity to a multidisciplinary and comprehensive approach that takes into account the physical, mental and social well-being, general health and personal development of individuals (WHO, 1994). When the above-mentioned understanding is accompanied by the fact that the human being is at the center of every business and its outputs depend on health, the appreciation of the concept of occupational health and safety has become a necessity for the success of any organization.

Occupational Health and Safety (OHS) is a multidisciplinary concept that touches on issues related to disciplines such as health, law, technology, economy and psychology. Occupational health and safety is a comprehensive concept that encompasses an employee's mental, emotional, and physical well-being while on the job. As a result, it is a critical discipline for any organization's success. However, because of the wide range of disciplines it covers, it has been rejected alongside disciplines such as law, economics, health, technology, and psychology. As a result, numerous disciplines focus on specific parts of the concept while also using it as a reference in critical situations. For example, occupational health and safety is only mentioned in law when it comes to the responsibility to compensate an employee for a health and safety violation.

Occupational health and safety initiatives have traditionally focused on work-related or work-related chemical, biological, physical exposures, harms, diseases, non-compliances, and injuries. Psychological hazards at work are often underappreciated, particularly in developing countries, and their causes and consequences are poorly understood (WHO, 2007). However, in recent years, especially in developed countries, health issues such as the physical area of the employment, the type of job and its influence on health, job stress, working hours, and other psychological issues affecting the work environment have been taken into account. According to the World Health Organization, all employees have the right to a healthy and safe job that allows them to live a productive social and economic life (WHO, 1994, p. 5-6). This statement puts human life at the center of all production activities, which should not be put at risk for any cost (Yilmaz, 2014).

OHS Management Systems consist of five stages that are constantly evolving and complementing each other. These stages are "declaring the strategy and targets to be followed in the field of occupational health and safety with a policy document", "creating the organization", "planning and implementing the strategy", "evaluating the implementation" and "taking new measures according to the results (Yilmaz, 2014).

In light of this information, occupational health and safety can be defined as a concept associated with the elimination of job-specific risks and hazards in general working environments. Governments, organizations, and international institutions adopt national and international health and safety regulations to protect both the environment and people in order to carry out this action. Although, in today's changing world, providing occupational health and safety by making environmental, cultural, general, and radical changes in the working environment receives a lot of attention, occupational health and safety has a long history.

2.2. *The Importance of Occupational Health and Safety*

Occupational health and safety is very important for countries, employers and employees. These importance, expressed in terms of countries, employers and employees, are explained in detail under the headings below.

2.2.1. In Terms of Countries

Some of the damages experienced by employees can be remedied in a short time, considering the damages that the parties may suffer in terms of occupational diseases and work accidents. Some, on the other hand, require longer to recover. Countries' economies are being harmed as a result of this situation. According to the World Labor Organization (ILO) data from 2016, the economic damage caused by work accidents and occupational diseases is as significant as 4% of the gross national product, especially in developing countries (ILO, 2016).

The importance of occupational health and safety for countries, albeit indirectly, can be listed as follows (Namibian Employers' Federation, 2017):

- Healthy employees raise productive and healthy families. Thus, healthy workers are a key strategy for overcoming poverty.
- A safe workplace contributes to sustainable development, which is the key to poverty reduction.
- Processes to protect workers, surrounding communities and the environment for future generations have important common elements such as pollution control and exposure reduction.
- Too much pollution from industrial processes that can benefit from workplace health and safety programs and exposure to many harmful environmental toxins can be avoided.
- Maintaining a healthy and safe working environment, assessing job demands, medical diagnosis, health screening, and assessing functional capacities can all help to increase workers' employability and so stabilize the economy.

Occupational health is the basis for public health, since when workplace health and safety is not ensured, the risk of spreading important diseases (e.g. AIDS, heart disease, cancer) is very high and poses a danger.

2.2.2. In terms of Employers

Employers are immediately affected by the costs that arise as a result of work accidents or occupational diseases. Employers are responsible for all compensations, including fines, court fees, disability retirement, allowances,

hospital and physician fees, and these costs can put businesses in a difficult position, causing them to lose important employees. These losses distract from a company's targeted success (Baloğlu, 2013).

For employers, occupational health and safety does not only mean material damage. Occupational health is also vital for employers for the following reasons (Namibian Employers' Federation, 2017):

- Well-managed health and safety program,
- A positive and merciful image,
- Increase in staff morale,
- Decrease in staff turnover,
- Decrease in absenteeism,
- Productivity increase,
- Decreased health/insurance costs,
- Reduced penalty and litigation risk.

In summary, occupational safety and health is an interdisciplinary discipline concerned with the protection of people engaged in work or occupation. All occupational safety and health programs are designed to ensure a safe working environment.

2.2.3. In terms of Employees

Every human being has the right to life, and this right must be protected to the greatest extent possible. Employees are directly affected by workplace diseases and accidents. Employees have even died as a result of these accidents and diseases. As a result, people continue to work despite the fact that their safety is not considered important to their livelihood. However, this should be prevented, and each employee should be provided with a safe and healthy working environment (Karakule, 2012, p. 23).

Occupational health and safety is important for employees not only in terms of protecting their lives, but also for other reasons. These can be listed as follows (Namibian Employers' Federation, 2017):

- Provides a safe and healthy working environment for its employees,
- Strengthens the self-esteem of employees,
- Reduces the stress of the employees,
- Improving their morale,
- Increases organizational commitment,
- Increasing their skills,
- Improves feelings of health and well-being.

Employees' health and safety at work are extremely vital. OHS helps employees in obtaining reassurance before, during, and after an accident. An employee who has been in an accident, for example, is unable to work until he or she has recovered. During this time, employees can continue to support their families by receiving permanent or temporary payments from social security institutions. It is possible for them to contribute to their life with the compensation they can obtain in severe cases, such as not being able to work again.

3. Performance

3.1. Performance Concept and Affecting Factors

With the dictionary meaning, the concept of performance is explained as performance, a good result obtained in any situation or the quality that determines the result. Camgöz & Alperen (2006) define performance as “the extent to which individuals or institutions can fulfill their goals.” When seen from a functional standpoint, performance may also be described as the most acceptable conduct in relation to pre-determined standards and the degree of achieving expected goals as a task requirement (Göksel, 2013). People's performance levels are determined by how well they accomplish their jobs and responsibilities in the workplace (Güney, 2015). Performance can be compared to organizational expectations in the context of the current situation that individuals reveal in the working process in achieving the organization's goals, and can express the conclusion of the individual's performance status with a number of positive or negative degrees.

It is considered that the performance of employees is important organizationally and individually in order for organizations to reach their goals. Human resources in organizations need to be selected, planned, developed and evaluated in accordance with expectations and purposes. There are a number of factors that affect the degree of positive or negative current situation revealed by employees in achieving organizational and individual goals. It is possible to examine these factors in general as personal factors, organizational factors and environmental factors. Performance is affected in terms of personal characteristics, leadership characteristics, team characteristics, system characteristics and environmental characteristics (Öztürk, 2009).

3.2. Performance Management

When mechanization began in the early twentieth century, when it was not widely used in factories and there was a need for more manpower during a

period when human labor was extensively used, personnel units were created and information was filed in order to monitor the workforce and employee performance (Ergeneli, 2016). After the First World War, performance appraisal practices and techniques for assessing employees' personal characteristics were developed, and in the 1950s, the criteria for the task created by the employee and the degree of achievement of the task's goals began to be used in the United States (Uyargil, 2013). Performance management is a tool of human resources management that forms the basis of the process of evaluating, grading, remuneration and development of employees (Barutçugil, 2002). One of the most significant duties of organizational managers in the process of achieving the goals of organizations is to ensure that employees fulfill their job descriptions. In this context, the process of harmonization of organizational managers with employee performance and organizational goals also reveals performance management (İlsev, 2016).

The performance management process expresses the continuation of the organizational, functional strategies and objectives of the organization by managing the performance with the harmony of the employee performance (Başat, 2010). Although performance management is defined as the process of providing a work environment in which people can display high performance, it is also a process of growth and improvement based on the organization's general and specific performance evaluation criteria (Göksel, 2013). The performance management method entails discussing the behaviors and results of employees in the organization during their performance, providing feedback, and therefore empowering and improving (Helvacı, 2002).

3.3. Performance Evaluation System and Its Importance

The aim of performance assessment is to ensure the development of the employees whose performance will be reviewed, as well as to strengthen the evaluator-evaluated business relationship in terms of organizational benefit (Işığışık, 2008). Performance evaluation is considered to have two main purposes: enhancing performance and making decisions to profit from performance evaluation usage areas (Göksel, 2013). Performance evaluation is a crucial technique for determining an employee's current status (Mentor, 2009). In a performance evaluation, a person makes self-evaluation by looking at his/her current status in the company (Fındıkçı, 2009). Performance evaluation results have managerial purposes such as remuneration, transfer, and dismissal in the usage areas (Akyol et al., 2011). Within the framework of the determined objectives of the organization, it forms an organizational

basis with the purpose of improving organizational performance (Başat, 2010). Performance evaluation aims to make the decisions of organizational actions to be carried out depending on the evaluation results within the organization and to determine the main features of these decisions and to be compatible and objective (Sabuncuoğlu, 2007). In achieving organizational goals, performance evaluation also aims to guide the employee to become an efficient and qualified person. The expected objectives from performance evaluation are as follows (Sabuncuoğlu, 2016):

- Determining the training needs of the employees in the organization.
- Making career plans.
- Developing inventory for workforce planning of organizational employees.
- Strengthening the communication between the subordinates and superiors working in the organization.
- Improving the motivation of the employees of the organization and to enable them to express the aspects that need to be supported.

Employees should be monitored and evaluated in order to achieve the intended goals and maintain efficiency, and evaluations should be done in accordance with the level of success obtained.

The degree of achievement of organizational goals is evaluated by comparing the existing situation with the predicted situation, and the successful and unsuccessful situations of those examined in performance evaluation are determined. The significance of performance evaluation for both the evaluated and the organization is explained below.

3.3.1. Importance In Terms Of Evaluated People

Employees in the organization see their current situation by having information about themselves. Thus, it is ensured that they increase their personal development and abilities in the organization (Göksel, 2013). Personnel management process facilitates the performance of the employee of the organization in performance evaluation practices, and ensures that employee performance is free of nepotism, etc. (Helvacı, 2002). Employee motivation will be increased and a sense of trust in the organization will be established if performance evaluation is conducted using safe and objective standards (Barutçugil, 2002). The effective employee policy of the organization is performance evaluation, which affects the employee's motivation. In order to make the current performance and abilities

of the employees of the organization productive, their motivation in their duties can be increased with material and moral rewards. The benefits of performance appraisal for the evaluated person are as follows (Barutçugil, 2002):

- While it is a psychological requirement for individual goals, it provides benefits as a motivational need for organizational goals.
- The organization gives information about the employee's performance.
- It is effective in career management by recognizing the employees of the organization.
- It provides and improves communication between subordinates and superiors.
- It helps the evaluated ones to know themselves.
- It is important in determining the training need.
- The performance of the employees is checked at the target level.
- Organizational employees ensure that they have information about their success as a result of performance evaluation.
- By learning the job description from their superiors, the subordinates learn about organizational expectations.

3.3.2. Importance In Terms Of Organization

Employee job descriptions are fulfilled in accordance with the organization's objectives, and performance evaluation is a process that determines the value between the existing situation and the expected. Performance evaluation is an important issue for the organization in the context of today's management approach. Performance evaluation processes are carried out by organizations with an understanding of the value and development that performance evaluation brings to the organization. Organizational performance evaluation provides a regular framework for receiving feedback, facilitating decision-making and control processes in an integrated manner with data from the system, and ensuring the correct dissemination of the organizations' strategic and tactical goals (Başat, 2010).

Performance evaluation provides information to the organization about the dimensions of organizational performance such as effectiveness, efficiency, quality, productivity, innovation and economy. Thanks to the results of the performance evaluation, the strategic data obtained for the whole of the organization allows for the planning of human resources, the development of areas of use and the creation of organizational culture.

4. Organizational Commitment

4.1. Definition of the Concept of Organizational Commitment

In English, the word commitment is called “commitment,” in French, “engagement,” and in German, “Zusage, Verpflichtung.” It means “to be connected, loyal, compassionate, respectful to someone, to exhibit connection with love and hearing” in Turkish. The words “loyalty, commitment, loyalty, love” are used to describe the close meaning of commitment (TDK, 2019). Various definitions of commitment have been developed as a result of studies conducted in the past and present. The following are the definitions:

According to Becker, organizational commitment is the commitment between the individual and the workplace (Becker, 1960, p. 33). According to Kanter, employees voluntarily give their work and loyalty to the social system and combine their needs and desires with social demands (Kanter, 1968, p. 499). According to Hall, Schneider, and Nygren, organizational commitment is the process of integrating and harmonizing the goals of the individual and the organization over time (Hall et al., 1970, p. 176).

Organizational commitment is defined as an individual’s psychological attachment to the organization as well as their level of acceptance and adaptation to organizational characteristics (O’Reilly & Chatman, 1986, p. 493). According to Meyer and Allen, the psychological approach of the individual to the organization, the relationship between the individual and the organization, and a situation all contribute to the decision to remain in the organization (Meyer and Allen, 1997, p. 11). Organizational commitment, according to Luthans, is described as an individual’s strong desire to stay a member of the organization, willingness to work for the organization, and belief in the organization’s goals and objectives (Luthans, 2010, p. 130).

According to Baysal and Paksoy, organizational commitment is the individual’s seeing the interests of the organization above his/her own (Baysal and Paksoy, 1999, p. 7). Organizational commitment is a function of the harmony between the individual and the organization, and it is the measure of the organization’s adoption of values, goals and purposes, its efforts to achieve organizational gains and the desire to continue in the organization (Çöl, 2004, p. 2). According to Park and Rainey, organizational commitment is the psychological bond between the individual and the organization, such as loyalty, participation in work, and belief in the values, goals and purposes of the organization, and it is the situation that allows the individual to stay in the organization (Park and Rainey, 2007, pp. 197-200). Organizational commitment refers to an individual’s desire to remain in the organization; it indicates that he/

she is a member of the organization with a low probability of quitting (Colquitt et al., 2015, p. 64).

Despite the fact that many studies have been conducted in recent years on the concept of organizational commitment, which is one of the individual attitudes and behaviors that evolve with the interaction between the individual and the organization, there has yet to be a consensus on its definition. The reason for this situation is that researchers from different disciplines such as organizational behavior, psychology, sociology and social psychology approach the subject with their own perspectives (Mowday et al., 1982, p. 20).

According to the above definitions, the most important factors in organizational commitment are wholehearted acceptance of the organization's values, goals, and strategies, voluntarily striving for the organization, and strong commitment to remaining a member of the organization. The state of adaptation has significant individual and organizational benefits as a result of the interaction between the individual and the organization. As a result, businesses make an effort to keep employees involved. Organizations use motivational factors such as wages, bonuses, rewards, promotions, educational support, and corporate culture to keep individuals in the organization both materially and morally. The main approaches created for the conceptualization of organizational commitment by researching are as follows (Suliman & Iles, 2000a, p. 408):

- **Attitudinal Approach:** According to this, organizational commitment is the level of the individual's involvement in the organization and the power of identification.
- **Behavioral Approach:** According to this, organizational commitment is the situation that arises as a result of the costs that may occur by leaving the organization, together with the gains (such as friendship, time, pension) that enable the individual to be loyal to the organization.
- **Normative Approach:** According to this, organizational commitment is the obligatory feeling of commitment of the individual to the organization if the values, goals and objectives of the individual and the organization match.
- **Multi-Dimensional Approach:** According to this, organizational commitment is the mechanism that consists of both emotional commitment, perceived cost and moral obligation not alone, but as a whole.

The ability of organizations to compete is determined by the quality of the persons who make up the organization's major source of income (Yavuz, 2008). Individuals' efforts for the organization, combined with their qualifications, are insufficient to ensure the organization's existence. Individuals should

reflect this in their attitudes and conduct by having strong feelings toward the organization in order for organizations to develop stronger in an intensely competitive environment. The fact that the individuals who will offer this are knowledgeable and skilled, as well as having a favorable attitude toward the business, strengthens the business. As a result, the concept of organizational commitment is critical for businesses (Bolat & Bolat, 2008).

4.2. The Importance of Organizational Commitment

The feeling of psychological attachment to the organization as a whole is a combination of emotional, normative, and continuance commitment. This situation can change throughout an individual's career and develops differently when you just join an organization, when you start a family, and when you work in a good position in the organization for a long time. Regardless of how these three aspects of organizational commitment are prioritized, if any of them occur, it provides significant information about what both the individual and the organization may accomplish in this regard by feeling the individual-organization interaction (Colquitt et al., 2015).

Many studies on the concept of organizational commitment have been conducted in recent years because companies have abandoned traditional management and acknowledged the importance of investing in individuals (Oral, 2015). Rapid changes in response to competition and the conditions of the information-technology age, as well as the globalization process, have resulted in a restructuring process in many subjects, including changes in management systems and consumer demands and expectations (Akmaz, 2016). For this reason, organizations need more individuals, and the commitment between the organization and the individual becomes significant (Doğan & Kılıç, 2007). Efficiency increase is ensured by the cost-effective use of resources for organizations, and if the individual, who is one of the resources of the organization, is qualified, it will be used by evaluating other resources appropriately, and thus it will become a power for the organization (Türker, 2010).

Today, although the effective use of resources is an important issue for the organization, organizations are working to increase organizational commitment in order to reduce the high cost associated with employee turnover rate and to ensure the continuity of individuals in the organization. It is foreseen that the individuals affiliated with the organization will work intensively and will make sacrifices in order to achieve organizational goals and objectives. Individuals with low organizational commitment may experience individual and organizational negativities such as being late, absenteeism, lack of performance and leaving the job (Meyer & Allen, 1991).

Organizations must constantly produce cost-effectively, increase their performance, develop their products/services and processes, increase quality and efficiency in order to compete in the globalizing world economy, and organizational commitment is becoming increasingly vital in this regard. (Gül and İnce, 2005). The commitment of individuals to the organization is the most important factor in achieving organizational values, goals and objectives, and every organization wants to increase the commitment of its employees, and thus, it will be possible to continue its organizational existence with an increase in organizational welfare, while achieving success with problem-solving individuals (Gül and İnce, 2005, pp. 13-14). Additionally, these individuals contribute to organizational goals and objectives by producing highly innovative and creative thoughts for the benefit of the organization (Chow, 1994, p. 3).

4.3. Organizational Commitment Dimensions

There are three types of organizational commitment; affective, continuous, and normative, and are explored below (Colquitt et al., 2015):

- They reflect emotional reasons for staying in the business, such as feelings about friendships, the company's climate and culture, and a sense of satisfaction with one's work. Affective commitment to the organization is described as a desire to stay in the organization along with active involvement in it. Simply expressed, you want to remain.
- It represents cost-based reasons, such as concerns for the individual's own family, and is defined by the desire to continue as a member of the organization because it raises awareness of the costs associated with quitting. To put it another way, you must remain.
- It reflects some reasons for staying in the organization, including the feeling of being indebted to managers, colleagues or a large organization, and these form normative commitment, which is defined as the desire to remain a member of the organization because of a sense of obligation. So, you have to stay.

The efforts to develop multidimensional scales outweighed the efforts of researchers from various fields of science to determine the importance of the concept of organizational commitment, its scope and degree of impact, and the inadequacy of scales that can deal with this issue in a single dimension over time. Meyer, Allen, and Smith's three-dimensional organizational commitment scale is the most studied among the existing scales in this respect. This scale not only

distinguishes between work and organizational commitment, but also includes sub-variables that determine the reasons for these two types of commitment (Eğriboyun, 2013, pp. 39-58). Individuals feel three types of commitment, which are affective, continuous and normative commitment (Allen & Meyer, 1991, pp. 61-89).

The issue of organizational commitment, “three-dimensional organizational commitment model” is discussed. Thanks to this multidimensional approach, the relationship of the individual with the organization will be better understood. There are conceptual differences between these dimensions, and they originate from different reasons and create different thoughts, attitudes and behaviors. On the other hand, there are common features between these three dimensions. Each of these types of commitment affects the employee’s intention to continue with the organization.

5. Conclusion and Evaluation

There are trends that affect job performance in today’s contemporary organizational management, and the way individuals are organized with their work changes, which also affects some job performance factors. Since employee productivity in industrial and fabricated production is at the forefront, research on organizational behavior has traditionally concentrated on the physical components of job performance. Since the 1990s, new business lines have encouraged individuals to participate in the workplace by providing formal education and continuous learning opportunities, as well as planning and applying theoretical and analytical knowledge. However, there is a tendency to be more dynamic and fluent with science and technology studies, and it becomes easier to keep up with the changing world. The increase in service services has effects on business performance. If the task performance of individuals in the organization is low, costs increase. However, individuals in the organization can have high premiums even if their citizenship behavior is high and their adverse behavior is low. However, if they do not help each other and gossip and insult each other, these negative feelings are reflected on the customer. Organizations can provide a successful competitive environment by giving importance to the job performance of individuals providing services (Colquitt et al., 2015).

Employees’ health improves when they work in a safe and healthy environment, which reduces absenteeism, improves work performance, and, most crucially, reduces organizational commitment. Employee work spaces that are well-designed ensure that both employers and employees achieve higher levels of productivity. Ensuring the occupational safety of the employees is

protected by the laws, regulations, regulations and laws in force by the state under the name of OHS. Occupational safety refers to policies and procedures that allow for the establishment of a healthy working environment by taking into account the physical, psychological, and social characteristics of employees. Therewith, it has become mandatory for workplaces with 50 or more employees in Turkey to have an occupational safety specialist, a workplace physician and a health personnel (Timuroğlu, 2018).

Employee motivation will be enhanced by the predominance of occupational health and safety issues in the workplace. Employees who feel safe at work will believe that they are valued, which will lead to organizational commitment. The employee, on the other hand, will not feel safe and will lose motivation in this situation. As a result, he/she will feel useless, which will lead to bad attitudes about work and a decrease in organizational commitment. When looking at the research, it is clear that there is a negative association between occupational accidents and organizational commitment. In other words, as an employee's organizational commitment increases, the probability of a workplace accident decreases. Since the positive attitudes that organizational commitment will create towards work in the individual will bring together the components that prevent work accidents and will eliminate and reduce the causes of work accidents. In the same context, employer-employee communication, which is one of the vital dimensions of organizational commitment, will also be at a better level depending on the safe working environment (Özgen et al., 2001, p. 334).

Organizational commitment is directly related to accidents or occupational diseases that arise as a result of failure to achieve the goals of occupational health and safety. Employees that work in a safe environment develop into mentally healthy individuals. Employees working in an insecure and unhealthy environment, on the other hand, will be unable to adopt positive attitudes toward their jobs, and as a result, the necessary level of organizational commitment will either not be obtained or will diminish. Loss of status as a result of financial losses, as well as physical and psychological problems that may arise as a result of accidents, will have a negative impact on organizational commitment (Ceylan, 2011).

The full implementation of the issues related to occupational health and safety will contribute to the dedication of the employee to his/her work and therefore to increase the efficiency at work. When the employee works with these feelings, his/her anxiety will naturally disappear and he/she will become more productive. Perceptions will come into play here, and the employee will

follow the instructions more and work accidents or occupational diseases will decrease. For this reason, it can be claimed that there is a positive and significant relationship between occupational health and safety and organizational commitment (Kılıç, 2012).

When looking through the literature, it is clear that many studies have been conducted on the subject. It is thought that most people spend a large percentage of their waking time at work, according to Faragher et al. As a result, workplace pressures, stress, and other factors have an impact on people (Faragher et al. 2005). Workplace environments are increasingly being shown to be a factor in weakening organizational commitment. Physical and mental health are also harmed as a result of these concerns. The nature of work is changing as a result of new working methods and rapid technology advancements. Employees are frequently asked to work longer shifts than those stipulated in their contracts. Usually, this is done against the employee's will.

Considering these working conditions, the relationship between organizational commitment and health was examined within the scope of a meta-analysis by Faragher et al. The research in question includes 500 studies on organizational commitment and includes more than 250,000 people working in different organizations around the world. The study, which investigates the relationship between organizational commitment and psychological and physical health in general, includes issues that also touch on the relationships between occupational health and safety and organizational commitment. The largest combined statistical correlations found were between measures of organizational commitment and mental health, however there were also detected associations with physical health. All detected relationships are positive and statistically significant (Faragher et al. 2005).

Employees with low organizational commitment exhibit emotional exhaustion, low self-esteem, and high anxiety and depression, according to the meta-analysis' findings. Many people spend a large percentage of their waking hours on their jobs. They may be unhappy or have a negative impact on organizational commitment for long periods of time if their work does not provide sufficient personal organizational commitment or results in a reduction in organizational commitment. Such people are more prone to have low general mood and self-esteem at work, which can lead to mild depression and/or anxiety. If this issue is not resolved within a certain period of time, and especially if the individual cannot prevent the spread of his/her emotions to his/her home/social life, such feelings can eventually lead to emotional exhaustion (Faragher et al. 2005).

At the end of the study, some implications that will challenge occupational health experts are mentioned. Accordingly, the well-being of employees, especially their mental health, may be compromised if they experience a decline in their high level of organizational commitment. As a result, employee commitment to the organization becomes a critical (mental) health issue. Employees who have been recognized as having a mild mental health problem may benefit from being guided to take a hard and critical view of how they feel about their job, in addition to typical therapeutic approaches. Employees should be encouraged to adjust certain tasks that they complete as part of their job if they are negatively affecting their commitment. Discussing the problem with a colleague or manager, for example, could be the solution. A job or career change may be more secure if the rootedness of the negative impact of his/her commitment is greater, but this in itself constitutes a major and stressful life change and should be considered very carefully (Faragher et al. 2005). Potential risks are taken into account when these issues are examined in terms of occupational health and safety. Since the aforementioned factors are risky to workers' health and safety. The workplace of today is not the same as it once was. Mental health issues now make up a significant portion of occupational health issues. As stated, issues that directly affect occupational health and safety are among the effects of organizational commitment. Since morale and motivation are human factors that influence job performance. In the strategies designed to advance in line with their values, goals, and objectives, organizations prioritize human resources, which will lead them to their values, goals, and purposes. In order to increase the job performance of the individual, it is necessary to have good morale and motivation, for this, the level of organizational commitment should be increased by providing compensation, reward and promotion opportunities to the individual by the organization, and closeness, interest and sincerity with others should be shown, thus the level of organizational commitment will be increased (Çerçi, 2013).

Both individuals and organizations benefit from occupational health and safety, which has only recently been recognized as required and crucial in organizations. Occupational health and safety is defined as “the prevention of hazards in the workplace, the prediction and evaluation of risks, the reduction or elimination of risks, and the safety of production, organization, and individual safety” (Çamcı, 2013). Individuals' job performance, organizational commitment, and organizational commitment levels will be positively affected by occupational health and safety, as well as their healthy working environment.

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CHAPTER XV

RESILIENCE IN HOSPITALITY INDUSTRY

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1. Introduction

The number of people participating in tourism has increased and tourism has turned into a global industry as the result of the development of technology in the world, the increase in spare time, in disposable income, in social and individual security standards (Akdağ, 2019: 49). Tourism is an industry that meets 8 % of the global product and 10 % of employment with a growth rate of 4-5 % and affects dozens of sectors with its high multiplier effect. According to the data released by the World Travel and Tourism Council (WTTC), the total contribution of the tourism industry to the world economy is 8.9 trillion dollars and provides employment to 330 million people. However, the revenues obtained in the tourism industry or the number of tourists attracted to a destination can never be seen as guaranteed values through tourism and a terrorist attack, natural disaster or an epidemic that occurs unexpectedly when everything is fine can turn this positive situation into a negative one. Eryılmaz (2020) states that each of them is defined as a crisis.

Crises are periods of intense uncertainty characterized as unpredictable and loss of control over the basic functions of systems (COMCEC, 2017: 17) and it makes it difficult for businesses to define and be prepared for crises since it covers many areas such as natural disasters, economic changes, terrorism, epidemics, etc. The United Nations World Tourism Organization (UNWTO) defines crisis in the tourism industry as a set of events that occur in unexpected moments, reduce the confidence of tourists in the destination and prevent the usual activities of tourism enterprises: A crisis affecting the tourism industry manifests

itself as an event or conditions that endanger or damage the market potential and reputation of a tourism business or the entire destination (COMCEC, 2017: 17).

Today, crises have become inevitable situation and the crises experienced today have shown that there is a need for resilient policies in the tourism industry against crises and that all stakeholders should act together. Today, administrations, including cities in the most remote corners of the world, put tourism at the core of their policies as a tool of development, competition, reputation and quality of life. However, it is also important to ensure the resilience of tourism as much as to develop and expand tourism. However, when the literature is examined, it is seen that there are a limited number of studies on the resilience of countries, cities, tourism destinations, tourism businesses and tourists that make up the tourism industry. Especially in the tourism literature resources on organizational, social and individual resilience are neither non-existent nor very limited. In this context, this study aims to contribute to the literature on resilience in the tourism industry.

2. The Concept of Crisis and Tourism

Crises are periods of intense uncertainty characterized as unpredictable and loss of control over the basic functions of systems, some authors distinguish it between “crisis” and “disaster”. While crises are more predictable, anthropogenic, and of longer duration, disasters are more sudden, less predictable, caused by natural forces, and are generally of shorter duration. Disasters are likely to cause emergencies, that is, events that develop rapidly and require urgent intervention (COMCEC, 2017: 17), and crises occur at unexpected times and can turn into a disaster for individuals, institutions, businesses or countries when not prepared. The Asia-Pacific Travel Association (PATA) defines the tourism crisis as any natural or man-made disaster that has the potential to affect the tourism industry (Kalpaklıoğlu, 2010;Seçilmiş and Sarı, 2010).

Today, the fact that the types of crises include natural disasters, economic changes, terrorism, epidemics, sabotage, attacks, civil uprisings, and events that fall into fields such as psychology, sociology or politics makes it difficult for tourism businesses to define and be prepared for crises. The United Nations World Tourism Organization (UNWTO) defines crisis in the tourism industry as the whole of events that occur unexpectedly, reduce the trust of tourists to the destination and prevent the activities of tourism enterprises (Öztürk and Türkmen, 2005: 173).

Crises differ according to their recovery times. According to a study by the WTTC, destinations often recover faster from a one-time, relatively small-scale terrorist event than from a long-standing political turmoil or a serious

environmental disaster. As seen in Table 1, the fastest recovery events are; While political crises and then natural disasters occur, it takes the longest time to recover from epidemics and economic crises (COMCEC, 2017: 32).

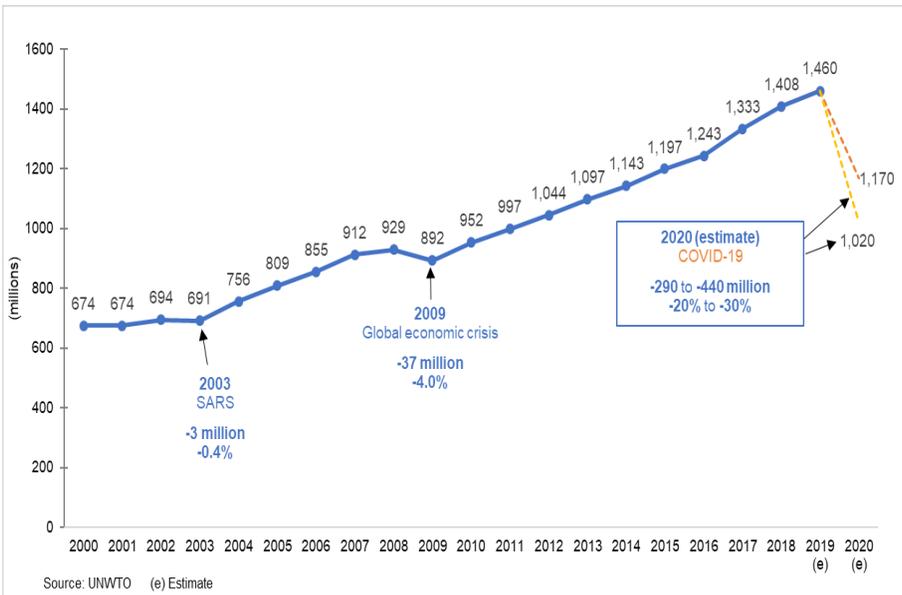
According to the UNWTO statistics approximately 1.5 billion people in the world participated in tourism activities in 2019 (Figure 1), however; repercussions of epidemic crisis proved that international tourism movements in 2020 sharply and dramatically decreased. WTTC (2016) predicts that post-pandemic recovery (Table 1) took 21.3 months, but with the latest COVID-19 outbreak, the loss in the number of tourists will be 5-7 years on average, so the recovery will be longer than expected (<https://webunwto.s3.eu-west-1.amazonaws.com>).

Table 1: Crisis Category and Average Recovery Time

Category of Crisis	Average Recovery Time (Month)
Political Turmoil	26,7
Terrorism	13.0
Pandemic	21.3 *
Environmental Disaster	23,8

*Average time before COVID-19

Figure 1: 2020 Forecast-International Tourist Arrivals (Millions)



Source: UNWTO; <https://webunwto.s3.eu-west-1.amazonaws.com>

Today, although tourism is an important global and economic industry, it is due to its close relationship with macro-environmental factors it is very vulnerable to crises occurring anywhere in the world. Tourism industry has been one of the industries where the negative effects of the recent and still ongoing COVID-19 pandemic are seen the most. The travel and tourism industry that is in the midst of the biggest crisis it has witnessed since World War II, and it is stated that international travel will not reach 2019 volume until 2023 (Shoory and Goodger, 2020). According to UNWTO, there was an 81% decrease in international tourist movements in July 2020 compared to the same period of 2019, and the loss of international tourism income was 730 billion dollars. WTTC states that the number of tourism workers who will lose their jobs on a global scale due to the epidemic will be between 98 and 197.5 million, and that the tourism industry is likely to experience a loss of 5.5 trillion dollars from the contribution of the countries to the gross domestic product of the countries (<https://apps.who.int>; Kırılıcı, 2020: 21).

There are crises in many parts of the world today and will inevitably happen in the future. The way we respond to and manage these crises will determine the future success of businesses, industries, cities and even countries. Therefore, it has become important how countries, cities and the tourism industry respond to these crises, how they can recover and how they can be resilient (www.rockefellerfoundation.org). Resilience is a concept studied in many fields such as management, ecology, psychology, disaster management, sociology and engineering, although these fields are different from each other, they are closely related and contribute to creating resilient individuals, resilient societies and resilient organizations (<https://socialekonomi.org>).

3. The Concept of Resilience

Resilience, as it is known in the international literature, comes from the Latin word *resilio*, which etymologically means to jump back (Klein et al., 2003: 35). In the Oxford English dictionary, it is defined as being able to recover quickly in the face of difficulties, bounce back and flexibility (Çetin, 2018: 182). Turkish Language Association (TDK), resilience means endurance, fortitude (<https://sozluk.gov.tr/>). Bökrekçi and Gerçek (2018) states that the Turkish equivalent of the word resilience in the field of social sciences are used as concepts such as endurance, resilience, resistance, flexibility, recovery, strength and resilience (Bökrekçi and Gerçek, 2018).

The concept of resilience; It is a concept with deep roots in the history of medicine, psychology, engineering and education and is used in many different

fields such as ecology, individual and organizational psychology, supply chain management, strategic management, engineering (Bhamra et al., 2011: 5376; Bhamra et al., 2016: 8). Resilience is a multifaceted research area that explores how systems respond to change; It has been applied to different systems such as the environment, communities, organizations and industries, and different definitions have been made in these disciplines. In general, resilience describes the capacity of a system to maintain or regain its functionality in the event of an interruption or failure. Resilience theory tries to predict the effects of global change and the complex and dynamic nature of how individuals, organizations and society respond to change (Bec et al, 2016: 431; www.rockefellerfoundation.org; Bhamra et al., 2016: 8). The concept of resilience was scientifically used for the first time in the field of physics to mean “recovering a system to its former form after a breakdown”. Holling (1973) generally defines resilience as the ability of a system to maintain its identity and adapt its basic structure and functions in the face of disasters (disruption).

In the social sciences, resilience was first discussed at the individual level and examined as a subject of psychology. Moving the concept from the individual level to the organizational level and handling it in management science started with the studies of Meyer (1982) and Weick (1993). With the increase of global threats such as economic crisis, climate change and terrorism, resilience has become a more remarkable concept (Orchiston, Prayag, & Brown, 2016: 145; Çoban, 2018: 58). There are various definitions of resilience in the literature. Resilience refers to the basic ability of objects, places and people to recover from and absorb external stressors (Amore, Prayag and Hall, 2018: 235). The White House (2011) defines resilience as the ability to adapt to changing conditions and to withstand and recover quickly from disruptions caused by emergencies. Resilience as the ability to minimize the costs of a disaster, return to an existing or better situation, and do it as soon as possible (Carlson et al, 2012: 7).

3.1. Dimensions of Resilience

The essence of resilience lies not in preventing or reducing asset loss in the face of adversity, but in improving the system to prepare it for different challenges. This type of preparation combines systems responsiveness with powerful future risk-aware stress management techniques (<https://resilientcitiesnetwork.org>). The concept of resilience, which is defined as the ability of a system to return to its former steady state after being exposed to external shocks (Tang et al., 2021: 2), is used in many fields such as management, ecology, psychology, disaster management, sociology and engineering. Although these fields are different

from each other, they are closely related and contribute to creating resilient individuals, resilient societies and resilient organizations as Lee et al. (2013) stated. (<https://socialekonomi.org>).-In this context, resilience is discussed under three headings in the literature. Those are; individual resilience, organizational resilience, and social resilience.

Figure 2: Wheel of Resilience



Source: (UNISDR, 2012: 7).

Individual Resilience: Lee and Cranford (2008) defines individual resilience as the capacity of individuals to adapt or cope with significant change, adversity, or risk despite challenging or threatening conditions. Fletcher and Sarkar (2013), stated that individual resilience has two basic features: the existence of a situation that puts the individual in trouble and the individual using this distressing situation as a springboard and taking it to a higher level than they had before (cited in; Çetin, 2018: 183).

Social Resilience: Social resilience refers to the ability of people to cope with the changes, threats and shocks they encounter in their living conditions and to maintain their living conditions. Social resilience can also be defined as the ability to adapt to changing conditions as an individual or group by renewing and developing themselves (Altay Kaya, 2013). In addition, social resilience integrates both social and environmental systems based on socio-ecological interpretations of resilience (Bec, 2016: 442). On the other hand, focus on social resilience, the ability or capacity of social entities to withstand and cope with various environmental and social threats (<https://socialekonomi.org>).

Organizational Resilience: The organizational resilience which is the concept of resilience in terms of businesses, is a concept that should be emphasized in terms of the sustainability of businesses today where environmental uncertainty is increasing and it is difficult to make long-term forecasts for the future. McManus et al. (2008) states that resilience for organizations has three principal attributes. Situation awareness, management of keystone vulnerabilities, and adaptive capacity. Weick (1993) states that resilience in terms of businesses is about creating an opportunity from this change, beyond being able to adapt to the change experienced (Günsel and Dodourova, 2018: 8).

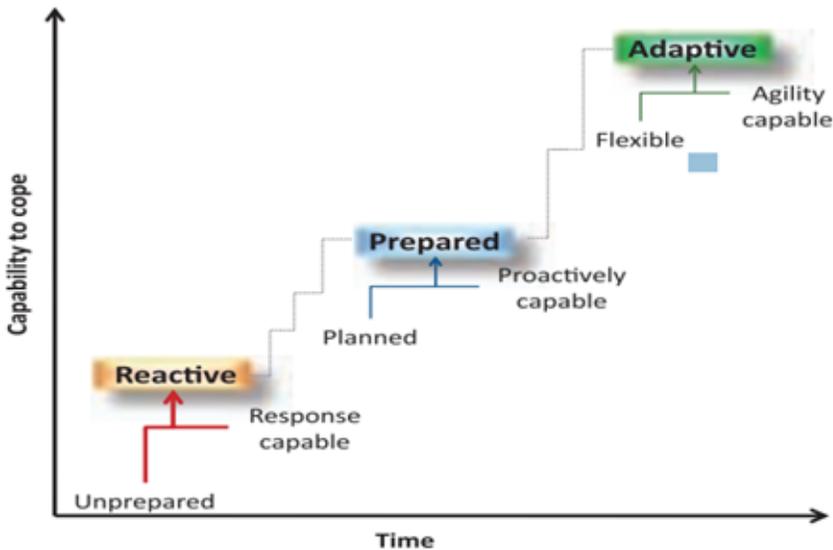
Bhamra et al. (2016: 19) points out that organizational resilience is a complex concept related to the functioning of an organization before, during and after the impact of an event. Refers to the literature Lengnick-Hall et al. (2011) stresses that there exist two different views on the definition of organizational resilience. *Firstly*, organizational resilience is the ability to bounce back from unexpected, stressful and negative situations and pick up where they left off. In addition, organizational resilience, when evaluated in terms of self-recovery, is the ability to quickly return to the expected performance level and strategies to cope with difficulties. *Secondly*, organizational resilience is the development of new abilities, the ability to adapt to any situation, and the creation of new opportunities. Emphasizing the idea of development, this view emphasizes being able to benefit from unexpected challenges and changes. In other words, building a successful future by taking advantage of opportunities, not just solving current dilemmas with available resources and talents. Therefore, this perspective is expressed as “transformational”. According to Lee et al.(2013); McManus et al. (2008) the resilience of organizations will contribute to social development (Çoban 2018: 71), As Öztürk (2018) cited; Mallak (1998) conceptualised it as the adoption to the situation easily, quickly and positively of “resilient individuals and organizations” when faced with an unexpected event, any stress without showing any symptoms (Öztürk, 2018: 83).

3.2. Dimensions of Organizational Resilience

Lee et al. (2013) frames the concept of organizational resilience the adaptability, strategic awareness, management of sensitive issues, shared vision, pre-warning systems, strategic planning. Gibson and Tarrant (2010), on the other hand, defines organizational resilience as a process. In this process (Figure 2), resilience that goes from a reactive approach to being prepared and then to an adaptive level; In fact, it is shaped by how the business handles environmental change over time, how it manages risks and how well it adapts to these changing conditions.

In addition to the authors mentioned above Kantur and Say (2013), in their study which aimed to conceptualize and measure the theme of organizational resilience; they construct the concept in a three-dimensional way as robustness, agility and integrity (Öztürk, 2018: 67).

Figure 3. Development of Organizational Resilience Process



Source: Gibson and Tarrant, 2010: 7

McManus et al.'s (2008), by underlying and referring four aspects of it, express organizational resilience (a) institutions having a strategic awareness of the environment in which they operate and all the actors of this environment (b) making an assessment of their own weaknesses within the scope of this awareness and managing those weaknesses (c) being prepared for crises and changes adapting quickly, and (d) acting as a whole in this adaptation process. To increase organizational resilience; (a) environmental analyzes should be made, risk management, business continuity, emergency plans and pre-warning systems should be established (strategic awareness) (b) the integrity of the enterprise should be maintained by ensuring coordination under crisis conditions (integrity) (c) the capacity of the organization to adapt to changing conditions (adaptation capacity) should be increased (Öztürk, 2018: 68). According to the McManus et al. (2008), strategic awareness is a measure of understanding and perception of an organization's entire operating environment. In addition to potential crises, the ability to correctly identify crises and the opportunities

brought by them is within the scope of strategic awareness. In addition, strategic awareness is related to strategic analyzes to catch the signals of crises in the pre-crisis period. Kisekka et al., (2015) state that organizations should be able to react as a whole, against unexpected developments, shocks and crises with all their units and members, They point out that the organizational resilience theory emphasizes businesses as a system wholly, and that all elements such as people, processes and technology around the business contribute to both the overall performance and resilience of the business.

According to McManus et al, (2008), integrity also reflects a shared common vision and team spirit. Adaptation capacity is perhaps the most important component of organizational resilience. Thus, Bitmiş (2013) states that adaptation capacity is a prerequisite for displaying organizational resilience. Adaptation capacity refers to the level of an enterprise's ability to respond to environmental uncertainties and adapt to these changes. McManus et al. (2008) states that studies on the effects of adaptation capacity, especially on the ability to withstand crises, have been encountered in recent years and adaptation also includes the tendency to search and evaluate opportunities to reveal the stronger and better in crisis conditions (Öztürk, 2018: 70). But, according to Orchiston et al. (2016) the two main aspects of organizational resilience are the planned and adaptive resilience. Planned resilience is the existing planning capacity that enables an enterprise to maintain business continuity and undertake standard risk management initiatives. Adaptive resilience is the ability of a business to respond successfully to a crisis (COMCEC, 2017: 23).

3.3. Stages of Resilience

Resilience is the ability of a system to reduce the likelihood of a crisis occurring, mitigate the effects of a crisis, and rapidly improve its core structures and functions. The speed of recovery from a crisis will depend on the different forms of capital (social, political, economic, natural, physical, cultural) created in the stages before the event (COMCEC, 2017: 2). Bhamra et al. (2016: 19) points out that resilience is a complex concept related to the functioning of an organization before, during and after the impact of an event. In addition, resilience, whether focused on the ecological, individual, institutional, or infrastructural levels, has all developed a literature base that addresses the response, recovery, and adaptation of elements and systems to threats and disruptions. Jiang, Ritchie, and Verreyne (2021) grouped the stages of disaster management into three groups as Pre-Disaster (Prevention and preparedness), during and after the

disaster (short-term- Response and recovery), and after-disaster (long-term-Resolution and resilience). Similarly, Ponomarov and Holcomb (2009) grouped the elements of resilience under three general headings. These; Readiness and preparedness, Response and adaptation, and Recovery or adjustment will be briefly explained below (Bhamra et al., 2016: 8; Jiang et al., 2021:4).

Readiness Phase (Prevention–crisis management body, plan, procedures): Although crises are often sudden, governments and businesses can prevent from the negative results of crisis by establishing a representative body of many institutions to assess potential risks and implement policies and procedures to deal with any consequences of the crisis. At this stage, a crisis response plan will be prepared through both written procedures and training of key personnel (COMCEC, 2017: 20). Readiness is achieved through the development of resilience within a system or community; this, in turn, increases the system’s capacity to deal with disruptive events. In this perspective, resilience is proactive rather than reactive (Bhamra et al., 2016: 23).

Response Phase (Distribution of plans and procedures): When a crisis occurs, in terms of assessing the severity of the crisis and ensuring the safety of tourists and residents, destination authorities and tour operators need to respond quickly and in a coordinated manner, followed by need to do actions to minimize medium and long-term consequences and facilitate recovery (COMCEC, 2017: 20).

Gallopín (2006) states that a system’s capacity to respond is concerned with the system’s ability to adapt to a disruption, mitigate its effects, take advantage of all available opportunities, and cope with the consequences of any system transformation. A resilient system is not subject to absolute change; rather, it has the capacity to manage effects and results (Bec et al, 2016: 432).

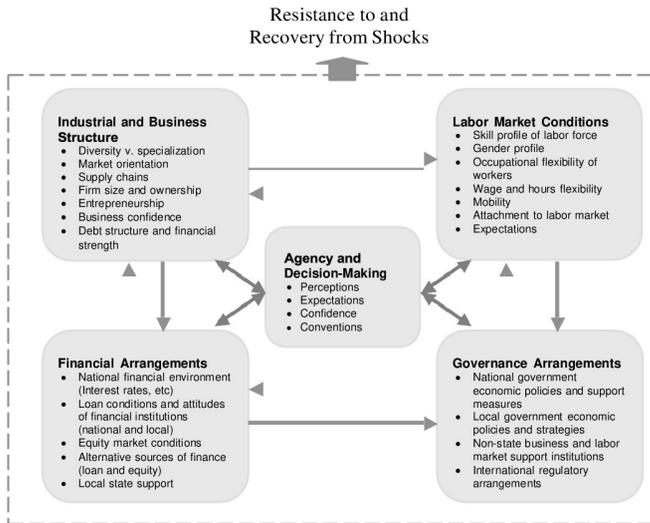
Recovery Phase: Even after the crisis is over, the market may remain skeptical about the safety of the destination/facility, so positive action needs to be sustained over a period of time through longer-term renewal of infrastructure and assurance marketing (COMCEC, 2017: 21). Collins (2012) implies that during the recovery phase, the system receives a shock that disrupts the stability and functioning of the SoS. For instance, it could mean an environmental factor such as a flood, or a competitor launching a new product that disrupts the market, or an event in which a subsystem or component system suffers a major failure. ‘Recovery’ also implies that the system, or the SoS as a whole, continues to exist and mobilizing its available resources to restore itself to a ‘fit for purpose’ state (Siemieniuch, 2016: 178).

4. Resilience in the Tourism Industry

The concept of resilience in the tourism industry has been discussed since the mid-1990s, and in recent years, it has been investigated in the context of disaster and risk management, especially in tourism destination management situations, as well as tourism-related climate/environmental change and sustainability concerns (Sheppard and Williams, 2016: 22). Cochrane (2010) expands the concept of resilience adding the field of tourism resilience and listed the basic features of a resilient system as the ability to understand and use market forces, cooperation among stakeholders, leadership and adaptive learning and the flexibility required to adapt to change (COMCEC, 2017: 2).

Tourism is a recognized resilience field for investigating a system's level of resilience and its ability to respond to short-term shocks such as crises and disasters. As a result, resilience studies in tourism often look at post-system collapse or highly vulnerable systems. Accordingly, there are some theoretical models and frameworks based on resilience to explain how tourism is declining and reviving. For instance Cochrane (2010) suggested the 'Tourism Resilience Zone' when considering the impact of the Asian Tsunami on tourism in Sri Lanka (Bec et al, 2016: 432). Tourism industry, which is vulnerable to crises, often experiences the effects of a crisis that crosses organizational and geographical boundaries and needs many different features and capacities to recover from crises. In this context, resilience in the tourism and hotel industry; It means a dynamic condition that defines the capacity of a hotel to evaluate, innovate, adapt and overcome the disruptions triggered by crises together with its stakeholders (staff, guests, local people). To increase resilience in hotels requires to build adaptive capacity, to create flexible organizations, self-efficacy, an organizational culture that leads to questioning innovation and the current situation (Brown et al., 2017: 365-368).

Natural disasters, epidemics, terrorist attacks, economic crises, etc. events can create potential and unpredictable serious threats to the stability of an organization and its environment (Bhamra et al., 2011: 5375). In particular, the recent and still continuing COVID-19 epidemic has been one of the most effective and tragic epidemics of the age, and although the tourism industry has faced epidemic crises priorly, with its immense repercussions it has been one of the most damaging crises to tourism (Assaf and Scuderi, 2020: 731).

Figure 4: Resilience and Recovery From Crisis

Source: Martin & Sunley, 2015: 30

Source: Martin & Sunley, 2015: 30

Resilience framework prepared by Martin and Sunley's (2015) based on the tourism environment using the available literature as seen in Figure 4. explains (labor market conditions, employment opportunities and workforce skills. The researchers, based on the previous response to the SARS epidemic, found that there were evidence about that the large international brands and hotels, such as chain hotels, responded better than comparing the smaller ones. Contrarily, they have stated that the SMEs are more vulnerable and less resilient due to the costs associated with COVID-19 prevention initiatives. SMEs are more vulnerable and less resilient due to the costs associated with COVID-19 prevention efforts. Additionally, they also stated that the government's intervention to provide financing during a crisis would be a very important step for the revival of tourism (Cioccio and Michael, 2007; cited in Mc Cartney et al., 2021: 4). Above all, the international tourism movement relies on the assumptions of a predictable, safe, a peaceful and stable ambiance in entire world. Tourism supply and demand are sensitive to disruptions that may cause changes in tourists' perceptions of risk, arouse fear, and affect tourist behavior.

In Table 2, there are questions (Kesgin and Pohland, 2018) developed to ask both the tourism businesses that make up the supply side and the tourists that make up the demand, in three stages (preparation, response and recovery) to ensure resilience in the tourism industry.

Table 2: Organizational Framework Based on Resilience Theory in the Tourism Industry

	Demand Side	Supply Side
Readiness	How can tourists be effectively prepared for crises/disasters?	How can the tourism industry prepare effectively for crises/disasters?
Response	How can tourists respond effectively to crises/disasters?	How does the tourism industry respond to crises/disasters?
Recovery	How can tourism demand be effectively recovered after crises/disasters?	How can the tourism industry recover after crises/disasters?

Any news of disruption to tourism at a destination will raise concerns about the safety of that destination providing enjoyable experiences. Rebuilding this trust can lead to a return to higher business levels. Therefore, to build resilience, the tourism industry will need to engage with other stakeholders on crisis preparedness, response and recovery, capacity building in the face of challenges, strong collaboration between local governments and NGOs, and the public and private sectors. Tourism businesses that make up destinations can improve their reputations and thus build resilience by building the capacity to prepare for, respond to and recover from crises quickly (<https://wttc.org/>). In particular, the fact that hotels provide 365 days and 24 hours service increases the importance of their resilience against crises and requires that tourists as well as personnel are always ready. In addition, resilience to crises for hotels can turn into lives saved by providing accommodation services, as well as business reputation. Moreover, the ability to plan and manage crisis situations should be an integral part of management education for tourism professionals (Brown, 2017: 367).

Table 3: Response of Supply and Demand Based on Resilience Theory in the Tourism Industry

Demand-Based Interventions	Arz Temelli Müdahaleler
<ul style="list-style-type: none"> • Terrorist attack or earthquake >>>>majority cancels/postpones 	<ul style="list-style-type: none"> • Communication • Media • Recovery marketing strategies • Tourist response • Providing service guarantees and information to reduce risk perceptions.
<ul style="list-style-type: none"> • Resilient tourists >>> young extroverts 	
<ul style="list-style-type: none"> • Resilient markets >>> regular visitors and visiting friends/relatives 	
<ul style="list-style-type: none"> • Managing information resources >>> Security measures and risk perceptions accommodation facilities 	

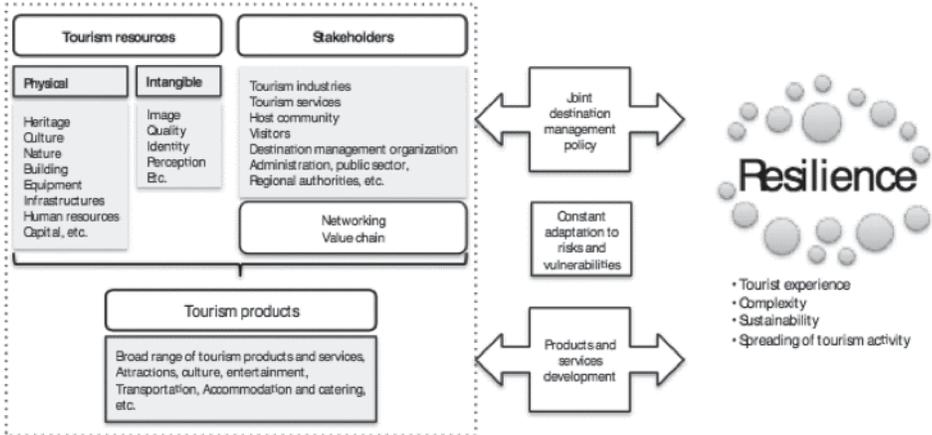
Source: Prepared by the authors from the studies of Pohland, Kesgin and Lagiewski (2018).

Increased incidents such as terrorist attacks, epidemics, earthquakes, etc., crises and disasters in international travel are a concern for all stakeholders however provide learning opportunities. In response to those disruptions as shown in Table 3, tourists have four choices as cancel, change, continue or delay their trip. The majority cancel or delay their travels due to events such as bombings (terrorist attacks), hurricanes or earthquakes (Kesgin and Pohland, 2018). For instance, with the sudden eruption of forest fire in Antalya region in 2021 summer, some number of domestic tourists staying at the hotel applied to the hotel management with the attempt to break their holidays by put forwarding that the forest fire, which is erupted at 25-30 km distance to popular destination district Side , decreased their holiday quality and morality by demanding the cost to be paid back as a hotel manager stated.

However, some do not cancel or book anyway, despite the risks and possible fear. Those are usually the tourists who visited the destination in the past, domestic tourists and young tourists (Kesgin and Pohland, 2018). The crisis-resistant travel behaviour of those tourists, who are called crisis-resistant tourists, is not completely flexible, but is defined as stable when it comes to destination selection. Crisis-resistant tourists are those who exhibit this kind of stable behavior in all types of crises they are exposed to. And, in the narrowest sense, this stability is the non-cancellation of previously booked trips. However, if this stability is extended to include travel plans, crisis resilience may also

mean making travel reservations despite knowing the negative factors (Hajibaba et al., 2015: 49).

Figure 5: Resilience of Tourism Destinations (Cities)



Source: Fabry and Zeghni, 2019: 100.

Jabareen (2013) states that urban resilience is a complex, multidisciplinary issue. The critical question here is that how resilient contemporary cities and different communities are and whether they are ready for the challenges and uncertainties that may arise in the future. Most importantly, what must cities and urban communities do to move from a vulnerable state to a more resilient one, and how resilient should cities be to contribute to environmental protection and sustainability? (Jabareen, 2013: 220-221).

5. Resilience in Hotels (Organizational)

The resilience of a business has three components: survival, adaptation and innovation, and they all work together to make the organization resilient. For hotels, these actions mean understanding the changing risks in various contexts and continually working to limit those risks. Organizational structure, adaptability, culture, and resilience can all affect hotels' crisis resilience, and large hotel chains may have organizational hierarchies that make it difficult to make quick decisions, resilience, and adaptive strategy. Resilient organizations have responded better to daily challenges because they are adaptable and innovative with their increased self-awareness and ability to manage vulnerabilities. A hotel that takes advantage of this idea can both create crisis resilience and achieve commercial success (Brown, 2017: 365).

A research conducted by Brown et al. (2017, 2021) on disasters and resilience. point out the importance of prioritizing disaster resilience building

for the hotel industry (Brown et al. (2017). It indicates that it is the starting point for the creation of the Disaster Resistant Hotel framework in Figure 6 (Brown et al., 2018: 69-70). Brown et al. (2018) used a capital-based approach to examine disaster/crisis resilience. The purpose of the conceptual framework here is to create a flexible and pragmatic way for organizations in the hotel industry to start improving their resilience against disasters/crises (Brown et al., 2018: 67). In Brown et al. (2021), during their literature analysis, they defined the following capital headings as important for disaster/crisis resilience. These; economic capital, social capital, human capital, physical capital, natural capital and cultural capital (Brown et al., 2021: 70).

Figure 6: The Establishment of Resilience in Hotel Businesses
(Brown et al.; 2021: 70)



Source: Brown and Orchiston et al., 2018: 70

Capital is defined as a set of resources that can be used to obtain or create additional resources. The resources and assets of a community or a business are also defined as capital. Resources can be tangible items (money in the bank), services (utilities), potential resources that may become available (credit line), people, and intangible structures such as trust and leadership. Resilience to a crisis can be based on the various forms of capital that existed before a crisis. The essence of using the capital approach is that capital consists of components necessary for the development of a sustainable community economy. A crisis-

specific capital approach can improve understanding of how the business has been affected by the crisis and what factors can play a key role in recovery and resilience (Brown et al., 2018: 69). These capital approaches, created by Brown et al. (2018) and Brown et al. (2021) and illustrated in Figure 6 are explained below.

Economic Capital: Economic capital describes the set of financially based resources a business has to improve its ability to continue operating through crises. Economic capital increases its capacity to absorb and adapt to changes after disruptive events (Brown et al., 2021: 4). Savings, income, investments and credit availability are components of economic capital. The resilience predictions in the literature, which include the availability of financial resources, income diversity, financial strength, and personal economic resilience of staff members, characterize economic capital. These contribute to a hotel's capacity to continue or restart operations in the event of a crisis (Brown et al., 2018: 70).

Social Capital: According to Calgaro, et al. (2013) predictors of social capital include social networks, being connected, relationships and trust (Brown et al., 2021: 5). According to Sydnor-Bouso et al.(2011), the predictors in the context of social capital are: i) social resources, connectedness, cohesion, ii) capacity to work as a group, and iii) trust. Predictors can be measured in a variety of ways. For instance, it can be measured by community connections, employment longevity, membership in local community groups, participation in and volunteering in community events, and readership of local news. The sense of community within the organization can be determined by the social activities available to the staff, the working time of the staff at the hotel, and the use of staff meeting areas. The capacity to work as a group and to solve problems can be measured by looking at the organization's decision-making process. For example, do managers and leaders take a participatory approach or hierarchical? (Brown et al., 2018: 70).

Human Capital: The success of hotel businesses in competition and efficiency largely depends on their employees and their motivation (Çetin, 2013). Also known as human capital, it describes people's knowledge, health and skills. Human capital has some components for resilience in the business as crisis information, including preparedness, plans and mitigation efforts. A hotel's focus on planning and how it is involved and exposed to the planning, training and implementation of hotel staff across departments can affect its resilience. Hotels gain strength against difficulties by having willing and talented personnel in times of crisis (Brown et al., 2018: 70). Human capital, which are crucial for most of the enterprises within the industry, as for the hotel and hospitality

establishments, it has a direct impact on the enterprise's ontology as the product is abstract and the quality of that product is determined by the qualifications of the distributor. As Cetin (2013) suggested that acceptance of motivation policy for a hotel is a vital strategy for productivity. Moreover, keeping staff that encountered with the guests in every moment of service delivery motivated should be considered as one of the factors that positively impact on resilient of hotel from the point of human capital.

Physical Capital: Physical structure and grounds, local geography and their human interface can be defined as physical capital. Physical capital is both buildings and infrastructure. Local infrastructure such as roads, utilities, local housing standards also play a role in determining physical capital. Physical capital for the hotel industry includes life safety aspects beyond the robustness of the facility structure, such as alarm systems and evacuation routes. The excess of critical facilities such as generators that can provide minimum standards for accommodation within the facility is included in life safety measures (Brown et al., 2018). On the other hand if a hotel can remain operational after the crisis, it is likely to survive economically when rescue efforts begin (Brown et al., 2021: 6).

Natural Capital: Natural capital estimates include the hotel's exposure to natural hazard risks and the hotel's impact on the natural environment (Brown et al., 2019: 113). According to NIST (2015), natural capital includes the environmental risks present at the hotel's location and the impact of the hotel on the environment. Besides the interaction between people and the environment, the local environment is also a part of natural capital. For Hall et al. (2018), many touristic places depend on the natural value of the natural environment to attract tourists to their destinations (Brown et al., 2018: 73).

Cultural Capital: Cultural capital combines local knowledge, attitudes, orientations and competencies to provide resources. Social and cultural capital are sometimes combined or used to explore organizational capital. Strategies can be developed to build cultural capital, unlike those used to build social capital. (Brown et al., 2018: 73). Cultural capital is a variable that differs from culture to culture and is local knowledge, competencies and traditions that affect local social systems. The inclusion of cultural capital provides an opportunity to understand disaster resilience in the context of these characteristics (Brown et al., 2021: 7).

Ivkov et al. (2019) surveyed 63 hotel managers from 12 European countries and examined the resilience of hotels against natural disasters. Alzola et al. (2020), as evidenced by the COVID-19 pandemic, hotel resilience is a key issue

for the survival and competitiveness of organizations and destinations, and they analysed the determinants of organizational resilience (strategy and change) and how they contribute to hotel resilience and performance. As a result of the research; They found that strategy and change dimensions have a significant effect on hotel durability. They confirmed that this had a positive effect on hotel performance and stated that the study would provide guidance to hotel managers to improve organizational resilience and performance.

6. Conclusion

As stated in a general form; economic and social changes have brought about the changes in the use and evaluation of business sources. As for the hotel establishments, surviving in national and international markets has become extremely depended on being able to create an advantage in competition, gaining additional value and being able to use this capital (Çetin,2013). Additionally, with eruption of unpredictable conditions let every form of business not only hotel businesses compelled to withstand these situations, rather than the increasing productivity and competition or / and with the productivity and competing together.

In this study we aimed to bring about an output of literature that made on resilience in hospitality industry in a charming changing business environment. As a result of the literature review, it is seen that there are a limited number of research on the resilience of tourism destinations, tourism businesses and tourists that make up the tourism industry. However, limited study has yet been found on the resilience of tourism enterprises, tourism destinations or tourists in our country. The first dimension of resilience in the tourism industry, as in social sciences, is about the psychological resilience of employees at the individual level, and these studies are limited in number.

As conclusion, tourism industry and more specifically hotel industry has developed in the last 20 years, but studies on crisis preparedness have not kept up with the rapid development of the hotel industry (Brown et al., 2017: 366). Resilience concept and its application in recent years have began used in research areas; planning, psychology, organizational studies and political science etc. (Amore, et al. 2018: 235). Resilience-based literature has followed a largely theoretical approach, creating a diverse literature base across different disciplines. To sum up; crisis and their effects in every field increase contemporarily. Those conditions requires businesses to become resilient in addition to their competition against rivals.

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CHAPTER XVI

BUILDING A KNOWLEDGE CULTURE IN ORGANIZATIONS*

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1. Introduction

History has witnessed four major stages of development so far. The first is the primitive foraging phase, the second is the agricultural society that led to the transition to settled life, the third is the industrial society that emerged with the application of steam and electric power to the industry, and finally the information society and information economy, which started to be experienced after the rapid developments in information technologies in the 1950s and continues today. Following the United States, Japan and some European countries began to become information society in the 1970s. While the contribution of the service and information sector to the economy increased in these countries, the contribution of the industrial sector decreased relatively. The information sector has taken its place as a fourth sector in these societies besides the agriculture, industry and service sectors. However, industrialization in developing countries has ceased to be the only goal, and the goal has shifted towards becoming an information society (Dura & Atik, 2002: 1-3). With these four major stages of development, it is possible to associate a new phase, which is now known by names such as digital transformation, industry 4.0. Aside from the effects of this transformation on our individual lives, the effect of this transformation in business life and social life should not be underestimated. It seems like employees will have to adapt their competencies to digitalization. The emphasis on unemployment or new competencies is increasing day by day. We face the professions of future as a separate topic of discussion (Çakirel, 2021: 1)

* This study is derived and updated from Yasin Çakirel's doctoral thesis named "Knowledge Culture and Interaction of Innovation in Organizations: A Research In Turkish Organizations".

In the context of this transformation, the processes of generating, using and learning information have become even more valuable for organizations. During this study, it will be emphasized how to create a culture that will enable organizations to produce, use, share information and use information in solving problems; the premises necessary for the formation of this culture, called information culture, will be discussed together with their sources.

2. The Concept of Knowledge, Knowledge-Creating Company and Knowledge Worker

The question “What is knowledge?” is one of the questions that has been considered since ancient times. Art, philosophy and science are interested in the concept of knowledge. Many definitions have been made about the concept. Knowledge is a concept that is recognized by organizations after the 90s and is also the subject of numerous academic studies (Çakirel, 2016: 3) Nonaka accepts the definition of traditional epistemology for the concept of knowledge and defines knowledge as “justified fact” (Krough, Ichijo, & Nonaka, 2002: 16) or “belief accepted to be true” (Nonaka, 1994: 14) and emphasizes the importance of accuracy. The concept of knowledge is defined in the Turkish Language Institution dictionary as “*the whole of truths, information, facts, phenomena, accurate information and principles that can be obtained through learning, research or observation*” (Trk Dil Kurumu).

Knowledge is at the highest level of data and information. It is possible to define knowledge briefly as “meaningful information” (Ok, 2015: 20) Although there are steps such as raw data and information in the formation of knowledge, one of the important points emphasized by the authors is that knowledge has appeared in the human mind. According to Davenport, knowledge can be defined as a flexible combination of information, experiences, values and the expert’s point of view. Knowledge is produced in the brains of individuals and is implemented here. Working brains are the manufacturing center of knowledge (Davenport, 2001: 17). Knowledge creation is just the beginning. It is important that employees actively share data and information to improve information flows in organizations and create new information. In fact, these two processes are very interconnected, so it is difficult to set a clear boundary between them, since information sharing leads to the creation of new knowledge and can even be understood as an integral part or sub-process of creating knowledge (Stojanović-Aleksić, Erić Nielsen, & Bošković, 2019: 1548).

(Sallis & Jones, 2013) also agree with Davenport. They emphasize that knowledge manifests in the human mind and list the characteristics of the information as follows:

- Knowledge is more than information.
- It is social.
- It is the key to organizational assets.
- It is structured in the mind of the knowing subject.
- It is an active act of comprehension based on a personal point of view.
- It is an integral element of learning.
- The key is an organizational input.
- It encourages to act.
- It can be implicit and open.

The implicitness and openness that Sallis and Jones state in the characteristics of knowledge is an important feature in terms of knowledge management in organizations. The aim here is to make the implicit knowledge in the minds of individuals open by sharing and transforming it into the knowledge of the organization. Implicit information is objective information in a specific format, which is expressed in words, numbers and so on, converted into a form, turned into a booklet, recorded as audio and video, or translated into a computer program, and ready for use (Chua, 2002; Dinçmen, 2010; Ok, 2015). Knowledge, which has the ability to mobilize the organization, is not consumed like concrete sources. When using concrete resources, effective distribution is required according to functions and tasks. However, knowledge is abstract, infinite, dynamic and has no value if it is not used in the necessary field at the necessary time (Nonaka & Konno, 1998: 41).

As organizations shift from wealthy to knowledge-centric, traditional measures fail. Markets now price an organization based on its knowledge assets and intellectual capital, not by looking at its buildings and computers (Tiwana, 2003: 44-45). Large companies in particular have little choice when it comes to becoming a knowledge-based company (Drucker, 1988: 3) A know-how company is the company that lives by selling the knowledge it owns. Know-how companies often have highly trained staff and can solve complex problems. The characteristics of these companies include that they are not standard, that they are creative, that they contain high independence and individuality, and that they can solve complex problems (Sveiby, 1989: 9-10). While knowledge-intensive organizations work like manufacturing organizations in many respects, their output is information products. Information has become a sellable commodity. Knowledge-producing organizations always strive to serve their customers with innovation, special products and creativity. They are usually small and flexible in structure. The main competence of these organizations is the knowledge worker and one-to-one communication with customers is very important (Barutçugil, 2002: 44-46).

Alwin Toffler describes this new type of worker as follows; “The third wave worker is more independent, more productive, no longer an extension of the machine. He is typically a skilled and specialized worker. Valuable as the toolbox of workers before the industrial revolution, this “brain workers” toolbox of the mind is full of talent and information. They are younger and better educated. They want to work independently and don’t like to get involved in their work, they are accustomed to change, uncertainty, flexible organizing. They represent a new power and their numbers are increasing (Toffler, 1997: 48-49). Knowledge workers are professionals who can do the same job regardless of gender, apply the same knowledge, are managed by the same standards and evaluated with the same results. Knowledge is a key and only rare resource. This means that knowledge workers collectively have production tools. On the other hand, knowledge technology specialists, the largest group of knowledge workers, were absent until the early twentieth century. These are people who have gained their expertise through education, not apprenticeships, and carry knowledge in their minds. Such workers have two types of needs: First, formal training, which makes it possible for them to engage in knowledge study, and then the continuous training which they receive throughout their lives to keep their knowledge up to date (P. Drucker & Maciariello, 2015): 89-91).. Today, the official education that Drucker emphasizes remains important, but the belief that competencies can be improved without a diploma is gaining strength.

Organizations have unquestionably understood the importance of knowledge. The fact that knowledge is produced in people’s minds, the possibility of being implicit by not turning into the knowledge of the organization, has led to an understanding of how important human resources are. The knowledge in the mind of the individual should be shared and turned into the knowledge of the organization. Today, organizations feel a great need for knowledge of human resources in order to compete with sustainability. Organizations that want to be stick around now hope to work with individuals who can think critically, to benefit from different perspectives, and to gain new experiences even from conflicts that sometimes arise as a result of critical thinking, rather than just doing what the manager tells them to. At the heart of this is the sharing of knowledge and the building of a culture that promotes sharing.

3. Knowledge Sharing in Organizations

Knowledge sharing is basically an action to make knowledge available to others within the organization. Knowledge sharing between individuals is the process

of transforming the knowledge that an individual has into a form that can be understood, assimilated and used by other individuals. The use of the term sharing implies that the process of presenting individual knowledge in a way that can be used by others is an informed act of the individual with the knowledge (Ipe, 2003: 341-342). Knowledge, whether managed or not, will be shared in the organizations. When employees ask their colleagues anything about work, the sharing will take place. This daily knowledge sharing is a natural part of business life (Davenport, 2001: 131-132).

While the above statements tell us that knowledge is constantly shared within the organization, Bran has a different perspective. Although there is a general consensus within an organization that knowledge sharing should be continuous, this is quite difficult to achieve. There is no universal way to establish a culture of knowledge sharing. Each company has to provide this within the framework of its own company dynamics. If they do not do so, contrary to what should be the case, they will make low profits and staff turnover rate will be high (Bran, 2019: 1) Compared to two different approaches, we see that it is difficult to systematically share useful, strategic and useful knowledge, manage knowledge and create a sharing culture. It is not enough to share knowledge only when asked within the organization, nor is it possible to guarantee that the question is asked to the right person. This can only happen through a systematic knowledge management process and the construction of a culture of knowledge sharing. As a matter of fact, Davenport makes the same emphasis: The transfer of knowledge to each other by employees does not guarantee that it is the most necessary knowledge to solve the current problem. In this sense, it is necessary to make efforts to make the knowledge registered and to obtain the correct knowledge (Davenport, 2001: 131-132).

Noting that small changes may have big consequences, Bran offers the following six recommendations for creating a culture of knowledge sharing (Bran, 2019):

- Make knowledge sharing a cornerstone of the company: Managers need to lead and encourage the process both by telling and exemplary knowledge sharing.
- Align shared knowledge with the job: It should be managed who will receive which information. Career-appropriate knowledge should be shared with people.
- Choose the best technologies: Knowledge sharing should be supported by selecting the technologies that employees will love to use.

- Advocate for knowledge sharing: Company leaders should curate and share knowledge created by other people in the industry through presentations, audio blogs (podcasts), videos, and share this knowledge with their employees. They should add value to the content produced by others with its ideas. They should learn, read, listen and try to establish a culture of sharing by thanking.
- Create supporting mechanisms for knowledge sharing: In addition to the enjoyment of the technology used by the employees as mentioned above, guiding mechanisms should be designed for them to be shown where and with whom they will find knowledge.
- Motivate people to share knowledge: It is necessary to discover the internal and external motivators of employees regarding knowledge sharing. Sometimes their ideas are valued or external motivators will ensure that sharing continues.

Encouraging the exchange of ideas between employees through social interactions at work facilitates the transfer of implicit knowledge. Inability to adapt to new technology, lack of awareness of the benefits of effective knowledge management and deficiencies in official language and employee authorization are among the main barriers to creating and sharing knowledge. A robust organizational culture and supportive environment play an important role in the dissemination of implicit knowledge through social interaction, whether in an office, department, or during meetings and training programs (Memon, Qureshi, & Jokhio, 2020).

4. Concept of Knowledge Culture and Precursors in Building Knowledge Culture in Organizations

Tyler was the first author to explain the concept of “culture” (1871, nar. Hatch, 1997; Oliver & Reddy Kandadi, 2006). He explained the term culture as “a complex whole that is gained by mankind as a member of society, including knowledge, faith, art, morality, law, tradition and any other abilities and habits”(Oliver & Reddy Kandadi, 2006). When we accept organizations as a community, we encounter the concept of organizational culture. However, organizational culture is probably one of the most difficult concepts to define among organizational concepts (Hatch, 1997: 202). Organizational culture reflects the feelings and thoughts of individuals about the organization they work for and shows how they perceive their organizations. Therefore, if the

organizational culture develops practices that reward, encourage and support cooperation, we can expect that knowledge sharing may be affected. On the contrary, knowledge sharing will be negatively affected in an organizational culture that rewards competition. The fact that the culture of the organization is in a structure that supports new knowledge acquisition and sharing them, encourages and rewards team-oriented work will motivate employees to share knowledge. Bacon's phrase "knowledge is power" emphasizes the individual, but creating value for organizations today is achieved through sharing knowledge (Özarallı, 2006: 652). An organizational culture that supports the production, sharing and use of knowledge is mentioned in the literature with expressions such as knowledge-friendly culture, knowledge sharing culture, knowledge-centered culture, knowledge culture, but within the scope of this study, the concept of knowledge culture has been preferred. When we look at the definitions of this concept; according to Bock, knowledge culture is "an organizational way of life that allows and enables people to create, share and use knowledge for the benefit of the organization and its continued success" (Bock, 1999: 22-25). Knowledge culture strengthens the common goals of employees and organization, supports efficient work with the team, allows the identification of personnel development areas taking into account the current competitive situation, contributes to the formation of the necessary conditions for the growth of human capital (Baidina, Molodchik, & Nagibina, 2021).

A similar definition was made by Oliver and Kandadi as "an organizational way of life that motivates and enables people to create, share and make knowledge useful for the lasting success and benefit of the organization" (Oliver & Reddy Kandadi, 2006: 8) In this definition, although the emphasis is placed on lifestyle, the term motivation for the production, sharing and use of knowledge is also used. In another definition, the culture of the organization is emphasized for the easy execution of knowledge management processes. Knowledge culture is a form of organizational culture that combines individual, group and macro organizational cultures to make it easier to manage the entire knowledge management process diligently/carefully (Travica, 2013: 95). However, it is clear that knowledge sharing in organizations is a complex process driven by power equations within the organization and loaded with value. Knowledge in organizations is inherently dynamic and depends on the social relationships between individuals for their creation, sharing and use. More knowledge is unofficially shared rather than through official channels, and much of the process depends on the culture of the work environment (Ipe, 2003: 355). When the academic literature is examined, it is observed that the precursors supporting this culture are numerous. In his

study, which examines the variables of knowledge culture, knowledge sharing and organizational innovation, Çakırel (2016) states that the precursors that influenced the formation of this culture were over fifty. Due to the limitation of the research, the most repeated precursors were discussed in the literature in the study, which examined 8 precursors. These precursors are examined below, respectively.

4.1. Trust

Trust as a precursor to knowledge culture is the most common concept in the literature on the subject (Çakırel & Pınar, 2021: 251). New studies are being made on the sharing of knowledge or culture of knowledge of trust, as well as those listed in this research (Intezari, Taşkın, & Pauleen, 2017; Kim & Park, 2020; Umar, Sial, Ali, Bari, & Ahmad, 2021).

A trust-based relationship between two or more employees will encourage knowledge sharing. When employees trust each other, they tend to share their knowledge and can also be supported by this organization (Peralta & Saldanha, 2014: 540). It is very important that individual knowledge is shared and becomes value-creating in order to realize the objectives of the organization. If the knowledge in the minds of employees is shared within the organization, it will create value. The realization of this knowledge sharing can be done with the confidence of the employees towards each other and towards the senior management. Trust within the organization also positively affects knowledge sharing. Individuals cannot be forced to share the knowledge they have. Knowledge can be shared in the event of a trust environment that acts as a silent connector (Özarallı, 2006: 629-638).

Kim & Park (2020) have found that the culture of knowledge sharing is positively related to interpersonal trust, knowledge sharing behavior and organizational learning. The trust that employees perceive has a positive effect on knowledge sharing behavior and organizational learning. According to this study, it has been found that employees are more likely to trust each other and share knowledge when there is a supportive and collaborative knowledge culture. In other words, having a knowledge-sharing culture can play a critical role in promoting trust among employees, sharing knowledge with colleagues, and participating in organizational learning.

4.2. Knowledge Technologies

An organization's effectiveness in managing its knowledge depends on the knowledge infrastructure. This infrastructure consists of three important

variables and the technological structure (hardware and software) is the first of them. Another includes procedures, policies and strategies that refer to the organizational structure. Finally, culture that encloses values and beliefs can be counted (Intezari, Pauleen, & Taşkın, 2021).

One of the areas most affected by knowledge technologies is workplaces. Traditional workplace perception has changed due to the influence of knowledge technologies. With the advantage of flexible working, knowledge technologies have reduced the need of workplaces for large areas and buildings. With the digitalization that transformed the industrial society into a knowledge society, it opened the door to new markets and started to give advantages to companies in competition. Decision-making processes are just a few of the workplace processes affected by a collaborative culture, production and management approach, performance evaluation and control, digitalization and knowledge technologies (Koçak; Orhan, 2011). The importance of choosing technologies that employees will love to use for knowledge sharing was mentioned (Bran, 2019). However, technology alone is not an adequate factor for knowledge sharing and the establishment of a culture of knowledge. Factors such as process design, office design, knowledge sharing software, and “best practice” stories help the success of the knowledge management chain. However, if employees are not willing to share information with each other, careful design of the office or information technologies cannot help (Karl Erik Sveiby & Simons, 2002: 420). It is not enough to rely on a techno-centered approach to knowledge sharing, to achieve the necessary social relations and interactions between staff. Therefore, corporate culture, the contribution of management, the use of knowledge and communication technologies, and human resources should be considered together to promote knowledge sharing (Lin, 2007: 326-327). Although technology infrastructure is an important aspect of any knowledge management initiative, the integration of knowledge into management decisions and applications depends on the extent to which organizational culture supports or hinders knowledge processes (Intezari, Taşkın, & Pauleen, 2017: 492).

4.3. Reward Systems

In company cultures where learning and sharing the knowledge with other employees are facilitated and rewarded, employees will be more inclined to share their knowledge with other employees (Özarallı, 2006: 638). It prevents knowledge sharing if the reward given as a result of knowledge sharing is deemed low by employees. Employees who expect a good reward are disappointed when these expectations are not met. Employees may think that knowledge in this

case is a valuable competitive advantage and should not be controlled by the organization. As a result, employees who experience this may develop a negative attitude towards knowledge sharing in exchange for this small incentive (G. W. Bock & Kim, 2000: 1046).

If members of an organization are rewarded for sharing and using their knowledge, they are more likely to share their knowledge with colleagues. In a knowledge culture, individuals are evaluated according to their participation in knowledge processes, not their organizational position. Therefore, a remuneration system is vital in encouraging employees to participate in knowledge creation, sharing and use activities. It is important to remember that incentives can be external/material (such as financial rewards: wage increases, bonuses and additional benefits) or intrinsic/intangible (such as a sense of competence and progress) or a combination of both (Intezari et al., 2017: 505).

Contrary to expectations in some studies, rewards are encouraging but not defined as a fundamental driving force. Regarding corporate rewards, Lin (2011) notes, “it can provide temporary incentives for knowledge management initiatives, but it is not a fundamental force.” Therefore, he adds, “managers should not emphasize corporate rewards (such as salary incentives, bonuses, promotion incentives or job security) as the main driving force of more mature knowledge management practices.”

4.4. Team-Oriented Work

Being collaborative and team-focused are united under one factor in Çakirel's study (2016). It is observed that there are studies in organizations that link knowledge culture with team focus or collaboration (Intezari et al., 2021, 2017).

Within an organization, knowledge formation teams or projects play a key role in value generation (Nonaka & Konno, 1998: 41). The knowledge of organizations that have solved the problem of cooperation, work team-oriented and manage to exchange knowledge will also increase rapidly. Creating, sharing and using knowledge requires a wide range of collaborations. Situations such as brainstorming, strategy planning, proactive behavior or competitiveness all require collaboration (Tiwana, 2003: 63-95).

When team members encounter problems with any project, they can face questions such as: “Have we been able to use all the knowledge and skills necessary to successfully complete the project?” or “Do we need an assistant from other units or employees in the organization to solve this problem?”. When team members try to answer these questions, their relationship status (network

behavior) with other employees will depend on the acceptance of the knowledge sharing climate. If the organization usually encourages them to share knowledge (e.g., if there is a knowledge-sharing climate), team members are more likely to seek help from other employees or groups. On the contrary, if the knowledge sharing climate is too weak or does not exist, team members are less inclined to seek knowledge and help from others as a solution to their problems (Hoegl, Parboteeah, & Munson, 2003: 746).

4.5. Communication

“The concept of communication is a broad concept that includes the transfer of information, data, perception, understanding, approach and intuition among various units and employees of the organization and all kinds of tools, tools and techniques used during this transfer, all systems used as channels and the transmission of all kinds of written, oral, nonverbal messages.” Communication is an exchange of messages, and without this process, it is unthinkable for businesses to exist. Effective operation of the communication process is important for the successful operation of management activity. In addition, as a result of the developing knowledge and communication technologies, the concept of knowledge society emerged (Koçel, 2020: 540-560). No individual, organization or group can exist without knowledge and comment sharing among its members. However, communication is not just about the transfer of knowledge and comments. This knowledge must also be “understood”. Therefore, communication is the process of both transferring and understanding discourse and ideas. Although this may seem simple, it is a fact that it is not, and that effective communication cannot be achieved in practice for various reasons. No individual, organization or group can exist without sharing knowledge and comments among members (Robbins; Stephen P. & Timothy, 2012: 134-144).

Efforts to improve the mutual relations of employees are necessary for the formation of a planned and effective knowledge management environment. Therefore, managers should improve employees’ perceptions of mutual benefit and address concerns about trust. Open communication is an important variable to facilitate the success of knowledge management applications. Managers should consider that knowledge management can continue to evolve when employees believe that an organization provides a safe environment where they can express themselves. Open communication helps eliminate resistance to knowledge management practices. Without communication, knowledge management processes cannot evolve in a healthy way (Lin, 2011: 148).

4.6. Management Contribution

Intezari et al. stated that previous studies have shown a positive relationship between management support and knowledge processes (production, sharing, use). They have defined the management support in information management processes as being part of information management, valuing information management, formalizing information processes, removal of decision-making from the center, close and direct monitoring, staff empowerment, learning from failure, rewards and incentives (internal and external), promotion and performance evaluations based on information participation. In this context, knowledge sharing will be supported by the high level and errors will be tolerated (Intezari et al., 2021).

Effective management of knowledge sources is critical to an organization's survival in today's complex and rapidly changing business world. For this purpose, knowledge technologies play an important role, but it is also necessary to pay attention to "mild" issues such as culture and people. The culture of an organization has an important role in knowledge processes. For these processes to work well, managers must create an organizational culture that promotes the culture of knowledge (Intezari et al., 2021). The support of senior management is critical to the growth of knowledge management practices, as it encourages the participation of volunteers in the delivery and collection of important knowledge. Therefore, senior management support can result in more mature knowledge management practices and facilitate the evolution of knowledge management (Lin, 2011).

Senior management plays a role as providers of the environment and culture in the formation of knowledge. Their task is to manage the formation of knowledge. Senior management should be aware that knowledge is a concept that is fed, supported, expanded, and taken care of. It helps create thinking platforms in terms of systems and ecologies and to develop cultures where knowledge emerges freely (Nonaka & Konno, 1998: 53-54). In the study conducted by Abfalter and his colleagues, it is seen that senior management is the key factor affecting knowledge sharing between groups in the organization (Abfalter, Stadler, & Müller, 2012).

The current literature emphasizes chief executives and top executives in the development of organizational culture and leadership. On the other hand, although the leadership of senior managers is important, it is stated that it is necessary for the middle and front office managers to demonstrate these leadership characteristics in order to develop and support the knowledge culture of the organization (Oliver & Reddy Kandadi, 2006: 12).

4.7. *Justice*

There are numerous studies available on the support of organizational justice in knowledge sharing (Demirel & Seçkin, 2011; Machuca & Costa, 2012; Şentürk & Carman, 2019).

Features that can be reconciled with organizational justice such as including the employees in the decisions taken within the organization, applying the existing rule to everyone, having the possibility to correct the mistakes made by the employees and taking measures against the mistakes to be encountered will ensure that the personnel working within the organization intend to share knowledge. If environments can be created where they can express their opinions freely, employees will intend to share their knowledge more easily. By applying the behavior of justice within the organization fairly to all in terms of reward or punishment, those who work will also intend to share knowledge more easily with their colleagues within the organization or with their superiors at the top level (Şentürk & Carman, 2019: 14).

Demirel & Seçkin (2011) argue that the following issues are effective within the scope of justice and honesty in the development or dissemination of intra-organizational knowledge sharing within the framework of their research:

- Measuring the performance of the personnel should be done objectively.
- The aims and objectives of the organization should be clearly stated.
- Managers need to be ethical in their relationships with employees.
- It should be aimed to increase the performance of employees with the developed reward systems.
- The limits of private life and working life should be obvious.
- Relations between employees should be based on trust and respect.
- Employees should also contribute to the decisions taken by the management.
- All ideas and opinions should be listened to by valuing differences.
- Behaviors and attitudes to ensure knowledge sharing should be supported.
- An organizational culture based on knowledge sharing and organizational justice should be established.

4.8. *Organizational Structure*

“As soon as companies in many parts of the world take the first steps in the transition from data to information, decision processes, management structure, even ways of doing business and processes begin to change.” The organizational structures of companies focusing on information production are changing.

Companies are predominantly composed of competent specialists and senior managers in the lower ranks, and the number of middle-level managers is decreasing considerably. In these companies, knowledge is mainly at the base, that is, in the minds of experts. The work will largely take place in task-oriented teams. The importance of self-discipline and individual responsibility is increasing (P. Drucker, 1999: 13-16). In their research centered on creating and sharing knowledge, Stojanović-Aleksić et al. concluded that it is possible for contemporary organizations to improve their knowledge creation processes by designing an organic organizational structure and developing an organizational culture that supports knowledge. Managers who aim to promote the production of knowledge in certain teams or the entire organization should reduce the level of expertise in the organization and give employees more authority. In order to improve knowledge creation, it is also possible to reduce the level of formality and base coordination primarily on mutual communication. In addition, managers can encourage teamwork in various ways (Stojanović-Aleksić et al., 2019).

5. Conclusion

This study examines the concept of knowledge culture and the premises to build the culture of knowledge. The knowledge management process consists of producing, sharing and using knowledge. The culture that facilitates this process is knowledge-centered culture knowledge-friendly organizational culture knowledge sharing culture , knowledge management culture (Intezari et al., 2017) or knowledge culture (Baidina et al., 2021; F. Bock, 1999; Oliver & Reddy Kandadi, 2006; Travica, 2013).

The relationship of the concept with innovation (Azeem, Ahmed, Haider, & Sajjad, 2021; Baidina et al., 2021; Çakırel, 2016; Kucharska, 2021; Molodchik, Molodchik, & Esaulova, 2021), leadership types (Baidina et al., 2021; Lei et al., 2019; Memon et al., 2020), company performance (Haque & Anam, 2020; Imran, Ilyas, Aslam, & Fatima, 2018; Marouf, 2016; Stojanović-Aleksić et al., 2019), competitive advantage (Azeem et al., 2021) has been addressed in different studies.

As it is understood, the concept has an important place in the organization's work. The precursors discussed in the study are the most common concepts in the literature review (Çakırel, 2016) but are not limited to this number. Indeed, apart from the factors listed to build some culture, dozens of factors such as leadership (Oliver & Reddy Kandadi, 2006; Yeh, Lai, & Ho, 2006), transparency (Machuca & Costa, 2012), autonomy (Intezari et al., 2017; Janz & Prasarnphanich, 2003; Moffett, McAdam, & Parkinson, 2004), flexibility (Machuca & Costa, 2012; Park,

Rivière, & Schulte, 2004), tolerating mistakes (Girdauskienė & Savanevičienė, 2007; Park et al., 2004), dependency (Nayir & Uzunçarsili, 2008), innovativeness (F. Bock, 1999) may be added (ref.: Çakırel, 2016).

The culture of an organization will either prevent or facilitate the dissemination and implementation of knowledge throughout the organization. (Machuca & Costa, 2012). Today, knowledge management processes have increased in importance as digital transformation changes not only businesses, but also individuals, society and economies. Although the aforementioned predecessors are different concepts, it will not be possible to distinguish one from the other in an organization where the culture of knowledge is settled. It is unlikely that a senior management that can tolerate the mistakes of its employees will be unfair in terms of organizational justice. Organizations should design and support their cultures to feed knowledge management processes.

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CHAPTER XVII

VIRTUAL ORGANIZATIONS AND MANAGEMENT

Zümrüt Hatun DEMİREL

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1. Introduction

Developments in information technologies have also affected the concept of “business” and new business models have emerged. One of these new business models is virtual organizations. The most important difference that distinguishes virtual organizations from traditional organizations is that virtual organizations carry out their activities regardless of time and place. In addition, virtual organizations have an innovative, flexible organizational structure that eliminates the hierarchical structure, can meet consumer demands faster, and these features enable virtual organizations to gain competitive advantage.

The independence of virtual organizations from time and space has paved the way for the emergence of new management styles. The disappearance of a certain working time and the fact that the employees are from different geographical regions necessitated the change of management functions.

In virtual organizations operating in virtual environments created by computers and its derivatives, the functions of planning, organizing, directing, coordinating and controlling, which are the functions of traditional management, must be fulfilled with electronic means. In other words, virtual organizations have transitioned to a new management approach by adapting their management functions to their organizations.

2. Virtual Organization

2.1. Virtuality

Virtual or virtuality, which is the equivalent of the Latin word “virtus”, means that it does not exist concretely, but is seen or felt as if it exists (Koçel, 2014:

504). Being virtual; means that an object or entity exists with the effect it creates instead of being in shape (Black and Edwards, 2000: 567). In the dictionary of the Turkish Language Institution, virtual is defined as “conceived, hypothetical, conjectural, designed in the mind that has no place in reality” (sozluk.tdk.gov.tr.).

Scientific developments in the world have necessitated the increase in productivity along with the desire of people to produce and consume more in a shorter time. The increase in productivity has made environments independent of time and space, creating “virtual” (Bebitoğlu, 2017: 2). However, technological developments and changes in communication cut the relationship between time and space in the realization of events, causing events to be perceived as if they did not happen (Cristie and Levary, 1998: 7).

Another term used synonymously with virtuality is virtual reality (Bebitoğlu, 2017: 2). Virtual reality; is the perception of an object, an event or an environment that does not exist in reality as if it actually exists (Cristie and Levary, 1998: 7-11).

Virtual reality is perceived in two dimensions as interactive and modeled (Datsyuk, 2007). Virtual reality encompasses the creation and transmission of information in space and time. It includes the transmission of audio and video recordings, the command-control system of computers and the components that manage this system (Crandal and Wallace, 1998: 19).

Interactive virtual reality is the synthesis of virtual reality created with the concrete reality we live in. In other words, it is the adaptation of the virtual world to real life. Today, there are two types of virtual reality applications: interactive virtual reality and modeled virtual reality. Examples of interactive virtual reality are virtual network stores adapted from real stores, three-dimensional pictures of products, one-click credit card purchases, and then home delivery of the product. Modeled virtual reality, on the other hand, is to create a special world independent of anything that is considered concrete and real. It is used in the architecture and interior architecture of buildings, medical examination of the human body, and three-dimensional product design (Sadykova, 2008: 4-5).

With the development of computer technology, people are now able to participate in a virtual environment or activity as if they were physically there by being isolated from their physical conditions and locations. E.g; With virtual reality, people can go to the shopping center they want and shop, attend meetings in other cities or even in other countries, and visit libraries and museums (Ataman, 2002: 400). Moreover, through the virtual structures created by organizations, employees can do the work they need to do without going to their workplaces (Şenel, 2017: 26). In this way, people can meet their needs from wherever they want and whenever they want.

2.2. *Virtual Organization*

The transformation of enterprises into open systems in the markets created by developing communication technologies and new technological opportunities has brought along the need to make changes in management perceptions and models (Afgün, 2006: 59). It is seen that most businesses strategically redesign their organizational structures in order to be successful in the global-hyper-digital competition environment. With the maturation of the internet market, it has become mandatory for businesses that use information as power and support to apply a flexible and dynamic organizational structure in order to meet the changing customer demands at the international level (Yılmaz, 2004).

As a result of the development and globalization in information systems, the independence of enterprises from physical space, and the increase of “networks” (internet, intranet) connecting companies and employees to each other, the term “virtual” has also started to be used for businesses (Sadykova, 2008: 4-5). One of the new organizational models that business managements have to implement in the new competitive environment is virtual organizations.

Virtual organization is a new concept that has been used with the development of computer technologies, especially after the 1980s, with the spread of the internet (Atasever, 2003: 5). A virtual organization is a geographically dispersed and functionally diverse set of organizational entities that are interconnected by electronic forms of communication and cooperate with each other to achieve a valuable result (Mukherjee et al., 2012: 256). It is the production of business outputs by organizations with different cultures and cycles, located in different locations in the virtual environment (Gray and Igbaria, 1996: 45).

Virtual organization is a form of cooperation that combines the core competencies of legally independent companies with vertical or horizontal integration, appearing to the customer as a single organization (Rittenbruch et al., 1998: 30). According to another definition, virtual organization; It is an integrated organization that provides goods and services to its customers as if it were a single organization that is decentralized, employees are not located in the same place, businesses operating in different places are in different processes of the production or marketing of a good or service, constantly interacting with the help of communication and computer technologies (Burn and Barnett, 1999: 216).

The striking point in the definitions of virtual organizations is that different organizations that come together operate as a newly defined unit. In other words, virtual organizations contribute to production in line with a common mission as a virtual team consisting of representatives of organizations from different

physical locations and reflecting different organizational cultures (Palmer and Speier, 1997: 1). Thanks to computer networks, virtual organizations can work together with people in the farthest parts of the world as if they were in the same workplace. In addition, virtual organizations do not have to use the real world when sharing information. They exchange information in a non-physical environment called cyber space (Akkavuk, 1997: 95).

2.3. Historical Development of Virtual Organization

In 1969, the experiment of transferring data from one computer to another computer by establishing a team of 40 people in order to create a network for data transfer of the Massachusetts Institute of Technology was accepted as the beginning of a brand new era at that time. In the experiment, the first two letters of the word LOGIN were changed and this transfer was considered a great success (Atasever, 2003: 83). The use of computers in homes and offices in the 1980s, and the subsequent developments in software in computer systems, facilitated communication by increasing the speed of access and reducing the cost. The establishment of the computer network system (www) throughout the world in the 1990s accelerated the change. With the emergence of the internet as a result of these developments, millions of networks in the world have been enabled to communicate and share information with each other (Hasiloglu, 1999: 50-52).

From the point of view of business; there was no organization among many businesses operating in the 1960s. These businesses were both competing with each other and meeting each other's needs in an unplanned network. Afterwards, the competition between businesses became more fierce and the surviving businesses were faced with a saturated market even though they reached their maximum size. In order to continue their lives, these businesses went to the way of holding holding. In the 1970s and 80s, businesses began to grow and expand globally. It has been insufficient to manage such growing enterprises with the traditional central administration. For this reason, many large-scale enterprises have gone downsizing and turned to activities that include their basic capabilities. They have started outsourcing everything other than their core capabilities. Thus, businesses have taken on a structure in the form of a network of entrepreneurs added to each other (Yurdakul and Çağlayan, 1997: 43-44).

On the other hand, as a result of all the developments in communication and information technologies after the 1990s, changes have occurred in the structures and ways of doing business of enterprises. Cooperation agreements such as establishing joint ventures, strategic alliances, and network organizations have enabled businesses to develop new talents, seize market opportunities, and

respond more quickly to customers' demands. These cooperation agreements formed the basis of virtual organizations (Akkirman, 2002: 36). The most important factor in the development of virtual organizations is the Internet. For businesses, the internet has provided quick access to information and effective communication. It brought benefits such as competitive advantage and customer satisfaction, allowing them to be done at the lowest cost. Moreover, it facilitated the production of brand new virtual products (Hasiloğlu, 1999: 50-52).

2.4. Reasons for the Emergence of Virtual Organizations

In the classical business approach, the goods and services produced by the business are offered directly to the consumer. However, this understanding loses its validity in today's global economy. Global manufacturers are able to offer cheap and high quality goods and services to all over the world with both technological developments and low labor costs. Thus, in addition to being able to sell goods and services of higher quality and lower prices than the products of local producers, they also have the opportunity to sell goods and services whenever and wherever they want (Şenel, 2017: 46). Virtual organizations have become more common with the developments in digital technologies, the beginning of internet use, the development of group software programs and video conferencing applications (Afgün, 2006: 69).

The information society is defined as a society where standardization and centralization have disappeared, information gains strategic importance, and business practices are globalized, where rapid and continuous change is dominant (Bozkurt, 1996: 30). Communication and information technologies have enabled the creation of virtual environments that can provide employees with the opportunity to deliver the necessary information to the employees whenever and wherever they want (Nilles, 1998: 30).

With the developments in computer technologies, the obstacles to the circulation of labor, goods and services between countries have decreased. Along with the competition between companies, economic wars have started between countries. On the other hand, organizations have to respond quickly to customer needs and expectations in order to be successful in a hyper-competitive environment and maturing internet market. Therefore, virtual organizations have become indispensable as they operate in the direction demanded by customers and they are developing day by day (Şenel, 2017: 46).

3. Concepts Forming the Infrastructure of Virtual Organizations

Technological developments have been the determining factor in the formation of virtual organizations. Internet, e-business and e-commerce have an important

place in the functioning of virtual organizations that use information technologies effectively.

3.1. *Internet*

The Internet has been defined as a **worldwide** network that connects many computer systems and is expanding day by day (Avşar, 2001: 197). According to the Dictionary of the Turkish Language Institution, the internet is used in the sense of “**general network**” (sozluk.tdk.gov.tr.). What is meant by “public network” here is the combination of many networks to form a main network. Millions of computer users connect to these networks and interact with each other (Seçilmiş, 2010: 197). The Internet is not software, hardware or just an application (Amor, 2002: 4). It is a network established between computers in which files such as graphics, music and text, created by many communication networks, are transmitted through computers (Özdilek, 2002: 13).

The Internet was first thought of by Licklider at the Massachusetts Institute of Technology in the USA in 1962, and its infrastructure was created by Kleinrock. It was established with the support of ARPA (Advanced Research Projects Agency), an institution of the US Department of Defense (Internet Supreme Council Infrastructure Technical Committee Report, 1998: 39). The Internet project was planned by the Massachusetts Institute of Technology to provide military communication in a possible nuclear war during the cold war between the USA and the Soviet Union. The first large-scale application In 1969, the first data transfer took place between four large computers located in Santa Barbara, Salt Lake City and Los Angeles, among which there are American military organizations, defense companies and universities (Gülcemal, 2011: 61).

Limited field trials were conducted in 1970-1985 and protocol specifications were rewritten. In the 1980s, it became widespread in the academic field in countries such as England, USA and Japan, and these countries formed National Academic Networks such as NFSNet and Janet. With the establishment of the TCP/IP (Transmission Control Protocol/Internet Protocol) protocol in 1982, networks with different network structures can also join this network (Gülcemal, 2011: 61). Internet services such as Wais and Gopher were opened in the early 1990s. Firstly, Wais and later Gopher helped the internet to become widespread especially in the business world and public administration due to its ease of use and other features (Internet Supreme Council Infrastructure Technical Committee Report, 1998: 39).

Developed by Tim Bernays Lee in the late 1980s and widely used today, www.(world wide web) or also known as web system HTTP (Hyper Text

Transfer Protocol) provided data transfer worldwide (www.iienstitu.com). The free distribution of the “Mosaic” program used for web access made by NCSA in 1993, the support of Mosaic in multimedia without any problems and the opening of websites to free users brought an explosion in internet usage (Internet Supreme Council Infrastructure Technical Committee Report, 1998: 39). In Turkey, the first internet connection was made in April 1993 at the Middle East Technical University with the support of TUBITAK (Gülcemal, 2011: 62).

3.1.1. Intranet

Intranet is a derivative of the internet. It is the abbreviation of the term “Intra Network” (Altınışık, 2003: 13). An intranet is a network that serves the internal needs of a business. It is a business-specific internet. Intranet users can access the Internet, but firewalls prevent outsiders from accessing private and confidential data. The low-cost and private version of the Internet and the Web is used on the intranet. It is easy to install and offers tremendous flexibility (Siegel et al., 1998: 71).

In its most basic form, an intranet is an application of Web-enabled technology within a business that allows the business to create more uniform and comprehensive links to information sources. Intranets begin as information-sharing networks and allow employees to use the browser they use to browse the Web to access company data. However, intranet is not just a corporate Internet behind a firewall, it is a way of doing business (Baker, 2000: 41).

In the intranet, there is a structure consisting of computers and auxiliary equipment connected to each other by the same communication network or infrared radiation connection, usually located in the same building or room. With the help of TCP/IP or other protocols, each computer user can exchange data with each other and use some communication services (Dolanbay, 2000: 8).

3.1.2. Extranet

Extranet was formed by the merging of intranets of different organizations. Extranet refers to the environmental network that an organization supplies raw materials to, the companies it does business with, and its customers (Altınışık, 2003: 16). Extranet acts as a bridge between the intranet network system used within the enterprise and the internet network system used outside the enterprise. Allows multiple trusted organizations to connect, such as suppliers, distributors, customers, and contractors, located behind virtual firewalls. These organizations can become partners in the network for transactions (Siegel et al., 1998: 71).

By establishing electronic connections with the company's business partners, extranets also help increase productivity by opening new markets, reducing costs, facilitating technology complexity and ways of doing business. Employees and business partners can safely use internet technologies for communication union and commercial activity purposes by using extranets (Hasiloğlu, 1999: 74-75).

3.2. *E-business*

Electronic business is the use of electronic networks and related technologies to enable, improve, develop or transform a business process or business system to create superior value for existing or potential customers (Sawhney and Zabin, 2001: 15). E-business is a business process that uses the internet or other electronic media as a channel to complete commercial transactions (Swaminathan and Tayur, 2003: 1389). In other words, e-business refers to the business connections of commercial enterprises using digital technologies, information transfer between customers, employees and partners, and the purchase and sale of goods and services they produce using electronic media (Korkmaz, 2002: 80).

E-business; It covers the use of technologies required by Customer Relationship Management (CRM) and Supply Chain Management (SCM) and their execution in a digital environment. It is the transformation of the existing functioning in the existing systems of the enterprise into a digital environment (Gülcemal, 2011: 71). It includes the use of web technology in order to retain existing customers, gain potential customers, improve relations with customers, reach customers as soon as possible with sales and information services, and increase efficiency by minimizing costs in all processes (Atasever, 2003: 37).

Businesses in e-business processes; (a) e-commerce websites offering sales transactions with their customers, suppliers, business partners and employees, (b) customer service websites, (c) intranets and corporate information portals, (d) extranets and supply chains, (e) IP they communicate using at least one of the electronic data exchange systems (Wu et al., 2003: 426).

Depending on various types of commercial partnerships there are many types of e-business such as; Business to Business (B2B), Business to Consumer (B2C), Consumer to Business (C2B), Consumer to Consumer (C2C), People to People (P2P), Government to Citizen (G2C), Citizen to Government (C2G), Exchange to Exchange (E2E), and Intra-business, etc. (Phan, 2003: 581-582).

All e-business transactions are carried out electronically using computers and communication networks, without the use of face-to-face transactions.

E-business applications are examined as three basic applications. These apps are (Phan, 2003: 582):

1. **Electronic marketplaces or e-marketplaces:** for buying and selling goods and services,
2. **Inter-organizational systems:** to facilitate the flow of goods, services, inter-organizational and intra-organizational, information, communication and cooperation,
3. **Customer service:** It is used for providing customer service, assistance, handling complaints, tracking orders, etc.

3.3. E-Commerce

Electronic commerce is the sharing of information in the business, the maintenance of business relations and the realization of business transactions aimed at creating value in the electronic environment through networks (Zwass, 2003: 8).

According to the definition made by the Organization for Economic Development and Cooperation (OECD), one of the organizations that carry out important studies on electronic commerce; E-commerce is defined as “*trade-related transactions based on processing and transmitting digitized data such as written text, audio, and images, in which individuals and institutions participate, over open or closed networks*” (OECD, 1999:8).

The World Trade Organization (WTO) defines e-commerce as “*production, advertising, sales and distribution of goods and services over telecommunication networks*” (WTO, 1999: 2).

According to the definition made by the United Nations, e-commerce is “*business information structured for the execution of business management and consumption activities; It is the activity of sharing electronic means between producers, consumers, public institutions and other organizations*” (cited in Çak, 2002: 12).

The concept of e-commerce is not only in the form of buying or selling goods in the electronic environment, but also covers a wide range of activities. E-commerce can be defined as “the production, promotion, sale and distribution of products through computer networks”. The processes involved include processing and transmitting written text, audio and video images that have been converted into digital format. In addition, transactions made in electronic media for purposes such as education, advertising-promotion, informing the

public that support commercial activities are also considered within the scope of e-commerce (Akbulut, 2007: 7).

4. Types of Virtual Organizations

There are some differences in virtual organizations in terms of working space and other features. Based on these differences, the types of virtual organizations are:

4.1. Telework

Today, technological developments allow employees to serve without relocating. One of these opportunities is office work at home. Telework, is defined as “*a form of employment in which the employee communicates and produces services by using new technologies, away from the organizational center or the place of production, without actually establishing face-to-face relations with other colleagues with whom he is a colleague*” (Di Martino and Wirth, 1990). : 530).

Telework is especially suitable for employees who do system creation and software development. In order for employees to be productive while working from home, they must have a separate well-being room, have fast and high quality communication equipment, and have regular working habits (Atasever, 2005: 86).

4.2. Mobile Office

It is an organization made up of mobile vehicles equipped with communication technologies for jobs that require mobility. All kinds of operations that can be done in the office using tablets, smart phones and portable computers are done while on the go (Seçilmis, 2010: 14).

An example of a mobile bureau can be given as the control of the vehicles and drivers in the traffic by using the Mobile Traffic System by the traffic police. In addition, since transactions such as invoicing, tracking product stock and price changes can be done in mobile devices as in an office, it is also suitable for use in logistics companies (Atasever, 2005: 86-87).

4.3. Virtual Mobile Operator

They are operators that use the GSM (Global System for Mobile Communications) mobile communication protocol. This protocol has been developed to provide mobile communication integration. Virtual mobile operators are used as voice communication networks. However, it also provides mobile data services (Arslan et al., 2008: 33).

It is controlled by SIM card. It establishes an intelligent network to provide service to its subscribers. Virtual operators are set up to provide ringtones, logos and other necessary information for use on mobile phones, for a fee. These operators can be subsidiaries of the real GSM operators or organizations that provide similar cooperation (Boz, 2012: 32).

4.4. Imaginary Organization

Imaginary organizations do not have a physical structure. Only their back offices and contact centers have a business network and are managed by communication technology (Hedberg et al., 2000: 12). It is a combination of three types of organizations. The customer places his order by clicking on one of the links promoting the product/service to be sold with commission per click on the sales website of the virtual organization. The order is processed centrally. However, the products are either out of stock or very scarce in the virtual organization. Therefore, the product order is usually fulfilled from the original manufacturer's own sales warehouse. Another logistics company undertakes the distribution and delivery (Price, 2001: 25). *trendyol.com*, *hepsiburada.com* can be given as examples of imaginary organizations.

4.5. Network Organization

With the globalization process, organizations need to cooperate with both national and international businesses in order to achieve their goals such as providing efficiency and effectiveness, being superior in the market and increasing service quality (Özdemir, 2010a: 210).

Today, organizations can adapt to the market by acting faster against competitive pressure and innovations of their competitors (Özdemir, 2010b: 263). In global economic conditions, it is not possible for organizations to be the best in all activities. Therefore, businesses focus on their core competencies and procure other activities from other organizations.

Network organization is defined as the organization of organizations, each specialized in a certain activity, coming together within the framework of predetermined roles and responsibilities (Cummings and Worley, 1993: 63).

5. Advantages and Disadvantages of Virtual Organizations

Virtual organizations have some advantages and disadvantages at employee, organizational and societal levels.

5.1. *Advantages of Virtual Organizations*

The advantages of virtual organizations are as follows (Akkirman, 2002: 64-65; Goldman et al., 1995: 202-214-215; Lipnack and Stamps, 2000: 40; McIntosh, 1995: 46; Nilles, 1998: 5);

- **Organizational Level Advantages of Virtual Organizations:**

- Since the number of tangible fixed assets (building, land, equipment, vehicle, etc.) within the organization decreases in virtual organizations, the production cost decreases as additional expenses such as insurance, tax depreciation covering these will also decrease.
- Due to the nature of virtual organizations, it includes many different organizations. Thanks to this feature, it allows small businesses with insufficient capital to enter large markets.
- Since it offers the opportunity to work with different projects and teams in different geographical regions, the virtual organization includes businesses in global cooperation. Therefore, businesses get the chance to observe the differences and innovations in the market and to improve themselves.
- They have the ability to respond to the need in the market as soon as possible.

The increase in opportunities in the market brings with it an increase in risks. One of the most important advantages of virtual organizations is that the risks are shared by the businesses within the organization.

- Virtual organizations are dynamic because there is a flexible structure in which it is easy for the companies in the existing network to leave the network and for new businesses to join the network.
- Another advantage of virtual organizations is that they have outsourcing applications. In this way, businesses can provide fast access to the workforce they need. In this case, businesses gain competitive advantage and save resources.
- Virtual businesses engaged in electronic commerce can now obtain information flow and feedback to customers very easily, without geographical boundaries and distances, thanks to virtual markets.

- **Employee-Level Advantages of Virtual Organizations:**

- The obligation to be in a certain place and time, which is in the classical understanding of work, has disappeared in virtual organizations. Employees can do their work at home, in the office or on the road. Elimination of space and time constraints increases the motivation of employees.

- Employees are offered the opportunity to do more creative, efficient and high-quality work. The fact that employees can adjust their work environments according to their wishes and work independently increases their job satisfaction.
- Employees save both time and money as commuting time is reduced or completely eliminated. Moreover, it also reduces the traffic stress experienced in commuting to work.
- **Community Level Advantages of Virtual Organizations:**
 - With the industrial revolution, factories and industries had to be centralized in industrializing countries. In order to manage factories and industries effectively, it was important to establish factories close to sources of raw materials, workers and suppliers. Therefore, the growth of industries has led to the growth of cities where factories are located. As cities grew, increasing air pollution brought along problems such as heavy traffic, stress due to traffic, and increase in house and workplace rents. Virtual organizations have prevented workplaces from clustering in the same geographical areas. Air pollution, traffic etc. It has helped reduce the problems.
 - Virtual organizations offer job opportunities to people living in rural areas and people with disabilities.
 - By helping to reduce traffic, virtual organizations also provide social contributions such as protecting resources that are limited to less gasoline consumption, less traffic and reducing air pollution.

5.2. Disadvantages of Virtual Organizations

Virtual organizations bring advantages as well as some disadvantages. It is possible to list these disadvantages as follows (Sadykova, 2008: 59; Soydal, 2005: 460; Yalçınkaya, 2011: 135-136);

- Employees in virtual organizations are required to control their own work. This is because they do not see each other while working. In addition, since employees are constantly changing, it becomes difficult to control their work.
- Working together with people from different cultures from various parts of the world sometimes leads to conflicts.
- There are communication problems between businesses that work physically independently of each other in virtual organizations. Inter-business

communication takes place in a virtual dimension thanks to the technological infrastructure. The absence of elements such as body language, tone of voice and facial expression that increase communication efficiency in the virtual work environment makes it difficult for employees to understand each other.

- The fact that virtual organizations are multi-partner and multinational, independent of physical spaces, makes it difficult to create a common culture and values. This situation reduces the motivation of the employees and reduces their commitment to the organization.
- The fact that the virtual environment is open to digital attacks, that businesses are in open communication with each other and that they share strategic information pose a threat to businesses.
- Businesses within the virtual organization perform their activities outside of their core competencies by outsourcing. However, this situation leads to the emergence of weaknesses within the company.
- For some employees, the workplace means socialization. Employees in virtual organizations may feel lonely due to staying away from social relations. However, virtual employees think that this distance may have a negative effect on rewards and promotions.
- Since individuals work together in isolation from time and space, it is impossible to evaluate performance by a superior. However, the uncertainty of employment periods also reduces the motivation of the employee.

6. Virtual Organizations and Management

In virtual organizations, the traditional management functions of planning, organizing, directing, coordinating and controlling are used in the management process. However, the use and characteristics of these functions in virtual organizations are different.

6.1. Planning Process in Virtual Organizations

The planning process is one of the most important functions of management. It is vital for businesses. Planning is a process that determines what needs to be done to achieve the goals (Eren, 2013: 179). In order to use the resources in the most efficient way with planning, the objectives of the business to be achieved in the future are determined, and the timing is arranged in which direction the business resources will be used and the execution of the works (Eriş, 2017: 274).

Virtual organizations, like traditional organizations, need planning to maintain their competitiveness in the markets. The most important point that draws attention when transforming traditional plans into virtual plans or creating a new virtual plan in the planning process of virtual organizations is that the plans are accessible at any time, can be updated according to the requirements of the day, and are accessible online for each of the business employees (Hess, 2002: 1).

6.2. Organizing Process in Virtual Organizations

Due to the geographical dispersion of the members of the virtual organization, they focus on a process, that is, the main purpose of the business, where there are no unnecessary processes, away from the actions that involve many processes. Therefore, it can be said that such enterprises are more flexible about their organizational structure than the traditional organizational structure (Çakmak, 2017: 51).

Virtual organizations work on a project basis. They partner with other independent and real businesses to complete a project. In order for the projects to be completed and the purpose to be realized, all partners must act in unity in terms of organizational structure. These partnerships are generally project-based, when the project is completed, the partnership may end and other partners may be found for subsequent projects (Çakmak, 2016: 46).

6.3. Coordination Process in Virtual Organizations

Coordination is the process of harmonizing the activities of employees to achieve the goals set by the organization. Coordination in the virtual workplace is becoming more complex. The execution of the activities carried out in different places and times makes coordination difficult. Formal or informal meetings, interviews or conversations held in traditional offices are aimed at ensuring coordination. In the virtual workplace environment, managers should develop different coordination methods in order to coordinate the activities of employees in different places and times (Chase, 1999: 76).

In order for the coordination function to be effective and efficient in virtual organizations, it is necessary to evaluate the previous management functions well and to determine in which activities the business will go to virtual work. After this evaluation, it will be to use an effective communication-based coordination method for success. One of the most important functions in virtual organizations is coordination. However, coordination in virtual organizations is more difficult

than in traditional businesses. Because there are geographical differences among employees and there is no physical dependence (Tutar, 2002: 16).

6.4. Orientation Process in Virtual Organizations

In terms of businesses, employee selection and their orientation are very important. In the previous periods, the focus of the enterprises was on the motivation of the employees and increasing the productivity of the employees within the enterprise. Parallel to the virtualization process of businesses, this perception has begun to change. The main point of focus is to determine the needs of the business and the individual and to integrate them on a common denominator, albeit at a minimum level (Soydal, 2005: 460).

6.5. Control Process in Virtual Organizations

The control function plays an active role in eliminating the errors or deficiencies revealed by this review and in reorganizing the business processes and making them efficient (Hellriegel et al., 1999: 663). Traditional control methods may be ineffective in applying the control function to individuals, groups and processes in virtual organizations. The behavior of individuals, groups or organizations is difficult to control because of very limited physical contact. Although the communication provided by electronic systems is important in the field of control, the internet etc. Abuse of communication tools creates an important problem (Bavec, 2010: 398).

7. Conclusion

Technological developments in our age and in particular the developments in the field of information and communication technologies have had great effects on business and organizational life. Developments in information and communication technologies are accepted as a revolutionary change. One of the biggest factors of this change is the internet. With the spread of the internet and making it accessible to everyone, change has become inevitable and businesses have had to adapt to this change. At the end of this process, virtual organizations that use all the possibilities of technology by using the virtual environment have emerged. Virtual organizations are the most tangible product of these technological developments.

Although the concept of virtual organization is a new concept, it has a rapid growth momentum. In recent years, with the development of technology and especially the growth of the software industry, serious increases have been observed in the number of businesses with virtual organization features.

With virtualization, there should be changes in the management processes and the methods that managers apply to achieve the goals. How the management will be in virtual organizations; How planning, organizing, directing, coordinating and supervising functions are not yet clearly explained. In order to ensure the coordination and supervision of independent virtual teams, especially in a multi-partner structure, governance activities should be carried out actively and a new corporate culture specific to the virtual organization should be created.

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CHAPTER XVIII

ANALYSIS OF FRENCH COLONIAL LOGIC AND TOOLS USED IN COLONIAL COUNTRIES

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1. Introduction

Throughout history, the East-West trade route has been the most important. The powers that controlled the East and West trade routes grew wealthier, and they rose to prominence on the historical stage as major forces. The Seljuks and Mamluks dominated these trade routes first, then the Ottomans, hastening the quest for new routes. The triggering of geographical discoveries for this reason started colonialism with the discovery of new continents. The Spanish acquired colonies in the Pacific, particularly in South America, from the beginning of the sixteenth century; the Portuguese and Dutch sought dominion in the Far East; and the British ruled practically the entire globe. The French, not wanting to be left behind, constructed a colonial empire, including a substantial portion of it in Africa. The world's political, social, cultural, and economic history have all changed dramatically as a result of this situation.

In this process, European “racist *based on the White Man's superiority*” and *practices based on the* sovereignty of “language and religion” merged with “*oppression and violence*”, accelerating and spreading the colonial process. During WWI, all Western countries endorsed a “**racial hierarchy**” centered on “**White Man**” dominance, which was founded on a shared territorial expansion project. President Woodrow Wilson of the United States stated in 1917 that he wanted to ‘*keep the white race strong against the yellows*’ and maintain ‘*white civilization's domination over the earth.*’ (Mishra, 2020).

However, it has recently been seen that all of the tools used, particularly racism, are reflected in Western countries. It is a subject begun to be discussed at the forefront of Western politics. The most visible example of this is the efforts of African countries to distance themselves from France, despite the fact that they were once French colonies that earned independence in the 1960s but were unable to entirely break their links with France. China, as a soft power, and Turkey, which has returned to Africa, both played a role here. There is movement in relations. There no doubt that this level of activity will continue to rise in the future.

The research is significant in terms of assessing general colonial practices and specifically challenging the French colonial approach's basis. The logic of colonialism will be stressed first, followed by a discussion of the consequences of racism, language nationalism, violence, and terrorism, which are the main tools employed by colonial countries, on colonial practices.

2. Colonialism and Imperialism

Colonialism is defined as “the shaping of an external power’s control of a geography or country acquired by that power and the construction of an administration in the manner desired by that power.” The nature of colonialism includes “**imperialism.**” Both colonialism and imperialism arose in Europe as types of “*new occupation*” that promised economic and strategic benefits. The word colonialism is frequently applied to settlements ruled by a population of Europeans from North America, Australia, New Zealand, Algeria, and Brazil.

The term “imperialism” refers to situations in which a foreign country oversees another country’s natural resources and wealth for its own gain. France’s actions in Africa in the late nineteenth century, as well as American domination in the Philippines and Puerto Rico, are typical examples. However, the distinction between the two is not entirely consistent in the literature.

Attempts to make sense of this distinction by diversifying it have been made in the past, such as establishing *colonies for settlement* and *establishing colonies for economic exploitation*. Colonization, which entails the direct authority of a foreign state, has far more serious implications than imperialism, which is primarily concerned with resource exploitation (Kohn & O’Neill, 2012). One of the main causes of occupation is the **economic motivation** of exploitation and colonialism. The colonial period of Africa refers to the period during which Europe used its greater military force to plunder the African continent’s human and natural resources. What people, whether in Africa or elsewhere, would gladly and consciously give up their independence? So much

so that they were not even negotiating parties to the “*so-called agreements*” they were said to have signed with Western countries.

From the north to the interior, the European invasion of Africa spread. **Geographical discoveries**, as well as the **slave trade**, had a significant impact on this. Following that, a period of confrontation began, marked by Western nations’ territorial ambitions and the imposition of foreign governments and institutions. As a result, Christianity, particularly its language, was introduced to colonial countries, and racist exploitation was alleviated by imposing culture (Okon, 2014).

France and England are Africa’s two most powerful colonial powers. Before the First World War, they ruled two-thirds of Africa, and after the war, they controlled more than 70%. This period of Africa’s grip on imperialism lasted from the mid-1800s to the early 1900s (Khapoya, 2012: 99).

3. Colonization from a Colonial Perspective

With the notion of “assimilation,” French colonial ideology embraces freshly conquered regions or countries under sovereignty as integral parts of the French Republic. Indigenous people were also encouraged to be part of France and were given the opportunity to become equal citizens of the republic. **The French Enlightenment Philosophy**, which is built on the superiority of French civilization, gave birth to this philosophy (Gravelle, 2014).

The concept of a civilizing mission was first proposed by Jules Ferry in a speech to the French National Assembly in 1885, who stated that “**the superior races have a duty to civilize the inferior races.**” During the French Revolution, moderate leaders like Boissy d’Anglos supported this notion. With the approach of “Why deprive the [colonies] of it if such a thought comes from European countries?”, colonialism was legitimized as a mentality (Cumming, 2005: 233).

In this unique and moral civilizing mission, England, too, stood with France, bearing the “**white man’s burden.**” As a result, the idea that Africa is an *incurable* “**other**” that needs to be changed by “**superior**” culture and languages has gained widespread appeal.

The British Empire’s territory grew from 24.5 million square kilometers in 1860 to 32.5 million square kilometers in 1909. With a quarter of the world under its control, Britain possesses three times as much territory as France and ten times as much as the Germans. Large territories brought population control at the same rate. Britain expanded its borders from Africa to the Far East and even to the Pacific (Ferguson, 2011: 234).

According to the *Blessed Destiny*/Manifest Destiny¹ doctrine, supporters of American expansion considered gaining new territory as a *“Blessed Right.”* As a result, it aspired to spread its “light of democracy and civilization” to the rest of the world. As the *“Blessed Fate”* ideology gained popularity in the 1840s, *“spreading democracy”* masked American expansionism (Muth, 2019). The new order is founded on the belief that the West *“must rule the East,”* and that *“no nation can live on its own anymore.”* Some US officials sought to learn from British colonial institutions’ experience in this area, so they went to the colonial office in London to observe colonial administration procedures in the Islamic states of the Philippines and Malaysia.

While examining the British colonial empire and agreeing on a racially supported civilizing mission, British academics and politicians contended that the United States was better fitted to the task. Because the USA had a unique history of liberal democracy. A political wisdom and liberalism unmatched anywhere else could have guided the United States to establish “a wise and useful governmental authority over a vulgar people” and guide its imperial subjects “to a higher level of prosperity and greater freedom.” US President W. Wilson draws attention to the inevitability of imperialism and civilization and states that the USA will fulfill its role in this process and will play an “important role” in the civilization of the world. This approach of the USA stems from the understanding of “perfect liberal democracy” that they believe they have. Liberal democracy is based on “softening the [imperialism] process in the name of freedom and informing and helping people in the process of change. Teaching them order and self-control, adopting obedience to laws and rules, and acquiring this habit will only be possible thanks to the USA (Go, 2010: 18).

The Spanish experience in colonialism ignited debate about a theological, political, and ethical aspect of the use of military force by the first explorers to gain control over foreign lands. This discussion took place within the framework of a religious discourse that legitimizes military intervention and occupation as a way of facilitating the transformation and liberation of indigenous peoples.

French colonialism, which continued from the 1830s until the end of World War II, transformed the *“civilization mission” as a colonial ideology into racism, language, religion/Christianity, and terrorism and violence* as the most important means of using force.

1 It is a doctrine that initially considered the seizing of Indian lands and the exploitation of all resources as a *“Blessing of God”*. It is the widespread belief that the expansion of the United States towards the coast and center of the Americas in the 19th century was both justified and inevitable. The United States claims to have a number of rights against any central or south American country that does not support its own policies and tries to act independently, including occupation.

The idea of a “civilizing mission” is by no means an invention of the 19th century British. The Spanish colonizers attributed their activities in America to a religious mission with a “sublime” purpose, such as to impose Christianity on the indigenous peoples. The Crusades have already formed the first foundations of this. The initial impulse for this project was to develop a legal doctrine that validated the idea of capturing infidel territories (Kohn & O’Neill, 2012).

The conversion of indigenous peoples, on the other hand, intensified the desire to conquer foreign lands. The conquest of the Americas by the Spanish coincided with a period when humanist scientists and theologians in the Church, such as St Thomas Aquinas, popularized natural law doctrines, and governments were increasingly influenced by them. Only “*if the heretics violate natural law,*” says Pope Innocent IV, does the use of force become justified. A person’s legitimate right to himself/herself and his/her property would be removed if it turned out that they could not manage it. The early Spanish colonists in the Americas arrived to the judgment that Native American customs, ranging from nudity to reluctance, work and family order to cannibalism, were “**inadequate**” for obeying and acknowledging natural law. So the Spanish colonialists had to “*teach civilization, introduce **Christianity***” to these indigenous people. This understanding has also made the use of force legitimate.

According to Herfried Münkler, a German political scientist, they are under a lot of pressure to recognize the existence of large-scale and worldwide political regimes. He contends that the imperial expense should be cut if they do not wish to collapse due to internal rebellion. More intense political and ideological power, he believes, (Münkler, 2012, 84) is the way to achieve this. This situation manifested as the introduction of the ideology of the “civilization mission” in the global colonial empires (Münkler, 2012, 131).

Colonialism can have no legitimacy. However, in the Western tradition, political and moral philosophers struggled to explain the immoral behavior of the society and governments in which they live. They attempted to explain the inaccuracy of this with many theories of justice and natural law over time. The contrast and tension between liberalism and colonial practices grew as European power-based world dominance reached its zenith in the nineteenth century. Unfortunately, ironically, at the same time that most political philosophers began to advocate the principles of “universalism and equality”, the same people seem to be talking about the virtues of colonialism and imperialism. The only way to reconcile what was done with these seemingly anti-imperialist principles was seen as a “civilizing mission”. Thus, “uncivilized” societies must undergo a

temporary period of political dependency and tutelage until they reach a point where they can adopt liberal institutions and maintain their self-government (Kohn & O'Neill, 2012).

The colonial empires of Europe thought that they were doing the people of the countries they conquered a favor by their actions. They claimed that they would offer a higher standard of living and quality of government, thanks to the trade, Christianity, and civilization they brought to the colonies (Lee & Schultz, 2012: 2).

4. The Logic of French Colonialism

For almost 150 years, the French colonial mind developed a large colonial empire in Africa, ranging from the Maghreb to the Western and Central Sub-Saharan areas. The empire, which expanded after 1830, also praised republicanism. Civilization efforts were initiated, particularly from rail transport. Road and transportation formed the basis of all kinds of shipments. In addition, it was aimed to improve the quality of life through effective health services. But attempts have been made to social engineer French interests, ideology, and government traditions to accommodate them (Benneywort, 2011).

The French Revolution of 1789 promoted republican values among the broad popular and elite. These values became the motto of France's national motto *liberte* (Liberty), *egalite* (equality) and *fraternite* (fraternity). These three principles were selected and pushed as a global value that should be shared around the world because they are simple to comprehend for any sensible individual. This argument became the foundation for the French "**civilizing mission**" which intended to improve impoverished cultures by exporting and implementing Enlightenment values (Waite, 2020).

Western science's positive side offered crucial data for measuring civilizations and their position in the hierarchical order. All of these ideals contribute to France's civilizing mission. Many tools are utilized to ensure the mission's success and the colonial countries' internalization of these values. Racism, language nationalism, oppression-terrorism-violence, and the spread of Christianity are the main tools. All these tools have led to the operation and use of Africa's tangible assets (all underground and aboveground resources) with a loot logic. Aside from precious metals, all living things (humans, animals, and plants) were considered to have economic value and were traded. The elements of "***racism, language nationalism, and oppression-terrorism***" were investigated in this study.

4.1. Racism

Racism can be defined as a generalized, systematic and persistent assessment of real or imagined differences between individuals (Petitjan, 2006). The 18th century has frequently served as a beginning point for research into various approaches to understanding race. Of course, meetings between individuals of different cultures have occurred for thousands of years, and it's difficult to know how these differences were documented by those who lived through them. Looking at the records of their first encounters in the 17th century between Europeans and those living in distant lands, they saw "... *race as something that brings out differences rather than an innate trait and unifying factor. So much so that they often imposed a 'civilizing' mission for the western white race.*" (<https://thewire.in>, 2016)

Europe had beliefs at the outset of colonization that saw it as legitimate and appropriate to take over the occupation and administration of non-European lands. These theories were based on so-called scientific racism and cultural arrogance. Not only did the Europeans bring their technological supremacy to Africa, but they also carried a sense of moral and racial superiority with them (Okon E., 2014).

"Ultimately, 'racial' discourses evolved. Because the French sought a justification for discriminating against those they perceived as a threat to their socioeconomic and imperialist ambitions. Slaves who could claim liberation, free peoples of color who were seen as economic competitors, and a significant indigenous population who did not accept the French policies of '**Frenchization and Evangelization**' were among these people (<https://thewire.in>, 2016).

According to some, the release of Charles Darwin's book "*Türlerin Kökeni*" in Turkish in November 1859, as well as the subsequent application of this theory to the social and political sphere, offered scientific backing for the belief in the superiority of the European race (Dennis, 1995: 245).

Since the seventeenth century, racism has been shown in many forms across European literature. This is why later Darwinists considered the conquest of what they called "*subject races*" or "*backward races*" by the "*superior race*" as an inevitable process of "natural selection," in which the stronger dominates the weaker. They were happy and hopeful to justify it. They agreed that using force was just and proper in this situation.

As a result, they regarded Africa's division as a natural, unavoidable process. The interesting thing about this overt racist chauvinism, aptly described as '**Albinism**', is that it endorses '*imperial intervention*'. However, **Social**

Darwinism applied in the colonization of Africa later emerged as the de facto normal (Uzoigwe, 1985, s. 22).

Edward W. Said, in his work *Orientalism*, argues that since the beginning of Western civilization, Europeans saw Asian and Middle Eastern people as a foreign and threatening “other”. This understanding, developed by British and French scientists, provided a justification for the colonization of Africa and the Middle East: the conquest/socialization or civilization of the other...

French racism has had a tremendous impact on modern racism in France, which ranks above other racist practices in colonial countries. Over the last two decades, a significant amount of empirical and theoretical study has confirmed that the causes of discriminatory acts are frequently perpetrated on an unconscious level, “*habitually or normalized*” without the perpetrator’s knowledge (Ware, 2015: 193).

Immigration from former colonies in northern and sub-Saharan Africa has had a significant impact on France’s demographics. For instance, in 2004 the French Parliament passed a law banning girls from wearing headscarves in public schools. In 2010, a law was passed banning women from wearing face-covering veils in public. Both measures and such practices that continue today have a discriminatory effect, at least on Muslim women, on the basis of ethnicity, religion, color and national affiliation (Ware, 2015: 185). This discrimination from the colonization period until today is overshadowed by the principle of “*secularism*”.

The colonial mentality justified racism and seizing other people’s lands. The collective attitude that developed in these societies gained a global dimension. Few have objected to such a classification of humanity, to “**race**”, even as definitions of groups have changed.

In the middle of the 18th century, children born out of marriages of European and indigenous peoples were considered mixed (metis) and “*inferior*”. French colonists complained that mulatto children were “extremely dark-haired” and “*inherently lazy*”. Dark skin color was seen as “**race**” as indicators of inferiority. The “*alleged depravity and savagery*” long attributed to the natives was seen as an invariable “**certainty**”. In official documents, colonial census records were kept under titles such as *Nègre (black)*, *Mulâtre (mulato)*, *Métis (hybrid/mixed)* and *Sauvage (native)* .

With colonial ideology, the French believed that they were “**chosen**” and superior, and that primitive nature dominated by indigenous people could also be perfected. Especially after the French Revolution, it was stated by the French governments that France was a country that could undertake this task (Spolsky,

2018, 240). During this period, France's expansion from Africa to Asia was legitimized by the "**civilizing mission**" aimed at educating the "**primitive**" people in the far corners of the world. The colonial rhetoric in support of the civilizing mission appealed to national pride, the splendor of French civilization, and the supremacy of Christianity over Islam. Jules Ferry, Minister of Public Education, who was one of the important advocates of the civilizing mission, who was an active person in the late nineteenth century, used the following statements in his speech in the French House of Representatives:

"Gentlemen, we need to speak louder and more honestly. We must say frankly that indeed the higher races have a right over the lower races. ...I repeat, the superior races have rights because they have a duty: they have a duty to civilize the inferior races. In previous centuries these duties, gentlemen, were often misunderstood. And certainly when Spanish soldiers and explorers brought slavery to Central America, they performed a duty as people of a higher race..." (Halsall, 1998).

Jean-Baptiste Colbert, who had served as Louis 14th's minister of finance, commerce, and industry, and founded the French East India Company in 1664, signed a racist decree in 1685 controlling African prisoners. Also known as the "**Code Noir**" (*Black Law*), this law remained in official force until 1848. Article 38 of the Law is regulated as follows: *"...The slave, who has been on the run for a month since the owner reported him to the police, has his ears cut off and stamped on one shoulder with the Fleur de lys (French royal symbol). If he commits the same violation for another month, the back of the knee is cut off and the other shoulder is branded with a blue lily, which is believed to represent purity, light and freedom in France. When repeated for the third time, he is executed"* (Bobin, 2020).

Although France has always defined itself as a country where there is no discrimination against blacks and expresses that they are "**colour-blind**" *and* that "**racism**" is unique to Anglo-Saxons (www.aljazeera.com, 2018), racist understanding and practices especially in the countries they exploit have a wide place in the literature.

Since the Middle Ages, there was no slavery in France, and slaves could not be bought and sold on French soil. But in the colonies where labor was scarce, the climate harsh, and conditions considered beyond the power of the white man, it was considered a "**necessary and legal**" condition (McCloy, 1961, 43). After the French Revolution, freedom, equality and fraternity were declared. Legal rights were also granted to all non-white males, whether in France or the colonies, in May 1791. Then, in February 1794, slaves in all French colonies

were freed. It was the result of a struggle, and some blacks and mulattos in France played a small part as actors in the movement (McCloy, 1961, 63).

France prohibits the recording and storage of any data based on racial or ethnic origin by a law of 1978 (Naidoo, 2019, 70). French census data does not differentiate people by race or ethnicity. Because French law forbids this to happen. France is officially “**color-blind**” (Wingfield, 2015: 186). However, since racial minorities suffer from significant discrimination masked under the guise of “**neutral**”, this attitude is described in academic studies as “**color-blind racism**” (Wingfield, 2015, p. 187). This discriminatory “color blindness”, which has become an ideology, is harshly criticized by many thinkers.

It is a fact that the French look down on Africans and African culture. It has a policy that supports colonial governments in Africa, also known as the “**assimilation policy**”. Although this policy was based on the principle of “**Revolutionary human equality**”, where people of revolutionary character would be equal, there was only French sovereignty and supremacy.

Thus, when the French encountered people they saw as barbarians, they took it as their duty to “**Frenchise**” them. While this meant an acknowledgment of potential human equality, it was totally rejected as African culture had no value whatsoever. Africans were regarded as a people without history, without any civilization worthy of their name, constantly at war with each other, and their encounter with the French civilization was seen as a chance for them (Khapoya, 2012: 107).

4.2. Sovereignty of the French Language

Colonialism has forever changed the world’s political geography, and one of its most visible areas is language. When people come across the term genocide and think about it, images of mass killings and starvation often come to mind. However, the suppression and ignoring of any language other than the French “**language**” may have consequences similar to genocide. (Geog, (-)).

French became one of the pillars of the state during the “**Old Regime**”. In this context, the beginning of the process is the 1539 decree of Francis I. Villers-Cotterets, which made French the only official language of law and administration throughout the country. However, Latin, which was preferred due to its practicality, was also abandoned. The gradual reduction of local languages to French is due to the fact that the king speaks that language. A century later, in the XIV. A century later, French became a justification for politics when Louis XIV annexed Franche-Comté (County of Bourgogne) on the grounds that it was French-speaking. One of the tools used by France to increase its influence in colonial countries and to make

these countries more dependent on itself was the French language. According to the French, this is not an empty claim. France had positioned itself as a republic with revolutionary ideals apart from other European powers, which were essentially conservative monarchies. French rulers and colonialists also acted on the assumption that African policy should be an extension of French domestic policy in many ways. Consistent with this idea, and by encouraging Francophile (French descent) elites, they chose a form of direct rule designed to liberate the colonies from the last remnants of the feudal “**aristocracy.**”

It is seen that the French were determined to put an end to the “**uncivilized**” practices that were considered disgusting in the French republic, such as “**cannibalism, slave trade, witchcraft, human sacrifice**”. In connection with this, while spreading French, they spread the belief that French was the language of the Enlightenment and was also the successor of the old universal language Latin, in transmitting “universal” values (Cumming, 2005: 234). Thus, the enormous influence and importance of the French in conveying the culture had an impact on the colonies. For this purpose, the method of educating the natives has been adopted (Fegarty, 2016: 44). The fact that French was the language of the universal human mind and was essentially superior to all languages meant that those who spoke it had the power to civilize, the spread of civilization (Kasuya, 2001: 242).

4.3. French and Assimilation

The concept of French Assimilation is based on the idea of spreading and placing French culture and civilization in colonies outside France in the 19th and 20th centuries against the culture of Africans. The indigenous peoples of these colonies were considered French citizens as long as they adopted culture and traditions. This also meant that French citizens would have rights and duties. The aim of assimilation theory is to educate African aborigines in language and French culture to transform them into “Frenchmen” and thus make them French citizens or equals. (bmshistoryblog.files.wordpress.com, 2018). French was used as the main tool of the French Assimilation Policy in Africa. The purposes of this assimilation are as follows (Chidozie, 2013: 15):

- i. Educating African natives with French language and culture to turn them into a good Frenchman;*
- ii. To ignore or make this culture look worthless by replacing African culture, civilization and history with French language, culture and civilization;*
- iii. Eliminate traditional power networks, institutions and social traditions;*

- iv. *Making people believe that Africans (indigenous Africans/French subjects) are “barbarians” but can become French by being civilized thanks to the “mission civilisatrice”;*
- v. *To convince Africans that French culture is superior to others and the best of all cultures.*

Contrary to British imperial policy, the French convinced their subjects that if they adopted the French language and culture, they could become French and eventually become “Black French”. Thus, Africans under French colonial rule were given all rights of French citizens.

People in Africa were under pressure from colonial perceptions of who they were. The British believed that Africans were fundamentally different from Europeans and would remain so. This point of view invited racism and implied that Africans were not only different, but also inferior. Compared to the British, the French did not mind treating Africans equally when they learned to speak French properly and adopted French culture. Africans were considered French citizens when they reached an adequate level of education. To fall below the required level was to invite accusations of racial inferiority (<https://www.bbc.co.uk>).

French assimilation policy is based on the idea of extending French culture to colonies outside of France (Bawa, 2013: 4). The enforcement of these policies was so strict that local people printing or publishing “**African-language books**” for use in “**village schools**” were taxed at a rate of 12.8%. Books imported for other languages (German, English) were subject to the same amount of tax at customs. The logic of French education and language policy was to ensure the acceptance and co-operation of the indigenous people through diplomacy.

As a result of this policy, french citizenship was granted, including representation and voting rights, for example in Senegal. These African elites became known as the “**originals**”. These “**civilized originals**” could work in administrative institutions and participate in the political and social life of the colony if they read and wrote French and adopted French customs (Mamadou Diouf, 1998, 674). However, achieving this status was not that easy. For example, West Africans had to be born in one of the four communes or municipalities in Senegal, had a well-deserved position in the service of France for ten years, and were of good character (Achebe, 2018).

It is argued that it was during the Third Republic (1870-1940) that it proclaimed its unique mission of “**civilizing**” the French-occupied people. France’s efforts to improve local conditions by building railways and improving

hygiene were seen as reflections of this ideology. But when local cultures clashed with French beliefs, they would be suppressed (Spolsky, 2018, 24).

All these policies have had a profound impact on the identity of the local people. Languages such as English, French and Portuguese have also become educational languages that retain their status even today. Even decades after independence, elites in many African countries speak the language of the former colonial power, and it has the status of an official language in virtually every country and – often the only – language of instruction (Dobrowski, 2017). These practices were effective in seeing non-European languages and cultures at a “*low prestige*” level by the European colonial powers. Although most colonized peoples are now politically independent, the cultural and linguistic “*decolonization process*” of both European and non-European cultures is not yet complete. Especially since the Second World War, the struggle to remove the “*language of low prestige*” stigma from cultures and languages outside of Europe continues. Previously colonized peoples question the colonial status quo and try to find a way to position themselves against former colonists and other threatening forces such as globalization.

The way for Africa to get rid of colonialism is through education. Thanks to education, colonial discourses can be easily maintained through both curriculum and textbooks. The education policies of the colonial period are still ongoing (Leglise & Migge, 2008, 297-338).

One of the most important examples of this is Algeria. Here, as the most powerful cultural weapon in maintaining French colonial rule, a rigorous and well-calculated policy of language assimilation was implemented (mediadiversied.org, 2018). In Algeria, where Arabic and Berber languages were used before, French became the only language of instruction after **France** took over this place. All schools were under the control of colonial rule. They were allowed to follow a national curriculum and hire only state-approved teachers. Most of the teachers were from France and other European countries. Only metropolitan educational materials were used in large and crowded classrooms. Except for a small “*elite*” group, students in French colonial schools were trained only in basic skills (Feldmann, 2016: 36). All these policies were made to expand and consolidate the field of the French language. But until 1950, illiteracy rates in the French colonial territories were still between 95 and 99 percent (Cumming, 2005: 158).

4.4. Use of Repression and Terrorism

The “civilizing mission” is not an easy process. In all of the policies set for this purpose, all elements of coercion, violence and repression were used

together. In other words, all the colonists forced their privileged positions to change by accepting a fundamentally racist political system and by using force to use everything they defined as subordinates (Thomas, 2011). For nearly five hundred years, all the colonial powers of Europe, especially France, Britain and Spain, have used everything, including human trafficking and Christianization, to spread these policies.

To dominate money and commerce, they first terrorized the environment: they used all known tactics as ordinary, such as terrorism, thuggery, robbery, looting and theft. But in the end they carried out the most brutal of all forms of oppression and terror to seize all resources, including “enslaving” the African people. First, they established their own government in the colonies, destroying African leadership and sovereignty. Then economic resources were dispossessed. Africans have been turned into forced laborers in all kinds of jobs and places that no longer belong to them. For this, pressure, terror and even war were risked (Jalata, 2013: 163). So much so that Joseph Chamberlain, who was minister of the Colonies, repeated the rhetoric of the French politician François de Charette, defending the violence and terrorism inflicted in his speech at the Royal Colonial Institute (31 March 1897):

*“... You can not eat omelets without breaking eggs, you can't destroy the barbarism, slavery, superstition practices that have desolated Africa for centuries without force; however if you compare the profits we make to humanity with the price we have to pay for it, I think you can be very pleased with the outcome of such expeditions, which can cost quite valuable lives and have indeed happened. We can be confident that a hundred people will be won for a lost life and that the cause of civilization and the well-being of people will progress significantly in the long run. But of course, such a situation requires a duty and a heavy responsibility, as I described. In the Queen's vast domains, **“the gates of the temple of Janus never shut”**² and what we undertake when we decide to use the imperial scepter to keep peace is a colossal task. The task is great, the responsibility is great, but the honor is also great; I believe that the conscience and spirit of the homeland will rise to the peak of their duties, and that we will have the power to fulfill the duty that our history and national personality have imposed on us...”*

2 The gate of the Temple of Janus was only closed during the peace periods. During the war years, it was kept open wide. Let it be clear that Janus can seize the war when it needs to and bring back peace. But unfortunately, Janus' temple was only locked five times during the very long history of the Roman Empire.

It is seen that European colonialism established a system of political domination by imposing its own political and economic institutions on the people of the lands it colonized. Although there were differences in practice between the French, Spanish, British and Portuguese colonial empires, all the necessary constructions were achieved for colonial domination (Zauache, 2017: 374).

For nearly five hundred years, European colonial powers such as Portugal, the Netherlands, France, Britain, Belgium, Italy and Spain each acted with different tactics and strategies. Trade/slave trade of some Africans, capture and control of trade, imposing Christianity by destroying African cultures and religions, destroying African leadership and sovereignty through colonial governments, dispossessing by taking away lands and other economic resources, and transforming Africans into workers for the colonists by force were made possible by oppression and terrorism.

It is an act of terrorism to seize the country and resources of the indigenous people through violence and oppression against Africans. Terrorism and violence have allowed the colonial powers themselves and their collaborators to prosper in Africa. As a result, they consolidated their power, claimed racial superiority, and imposed their culture on Africans (Jalata, 2011: 2).

Empires that acquired colonies from various parts of the world, especially in Africa, need to use **“force and violence”** to a great extent to maintain their existence in the colonial properties they occupied. And that’s how it happened. When they resorted to using force against the indigenous people, they did not hesitate to show extreme brutality. If we want to make a comparison of violence among colonists, it is seen that one colonizer is not behind another colonizer at all (Rhodes, 2019: 229).

Unimaginable examples can be seen in the use of violence by King Leopold II of Belgium, nicknamed **“The Butcher of the Congo”**. Documented violence against the Congolese people has resulted in the deaths of nearly 10 million people. The only reason for this violence and the deaths that come with it is that the people of Europe wanted the resources and lands of the colonial country only for themselves. Therefore, conflicts that started over material assets have also been the trigger for tension between cultures. Western colonial powers, free from the history, identity and language of indigenous cultures, paved the way for them to become people who only knew and used the colonial language and worked for them. They have no respect for local cultures and their history. These colonizers did not mind that the land was considered sacred and communally usable (Osman, 2017).

The term “**pacification**” is used to refer to the territorial occupations of the European colonial period. Whatever form it takes, colonial empires have imposed their existence and legal violence by pressures to “*pacify*” (Klein, 2017). The forced pacification of the resistant African people brought with it mass killings. It was also born as a result of the physical elimination of Africans by colonial agents during the process of pacification. The violent methods used to suppress these behaviors of Africans acting with a sense of national dignity constitute the historical dimension of an invading colonialist’s behavior equivalent to genocide.

Colonial violence fueled political anger among Africans, and these feelings of injustice felt by Africans sharpened and became visible forms of militant nationalism. Whether British, French or Portuguese colonial powers, it has always conducted movements opposed to terrorism and violence in Africa through assimilation and cooperation with local collaborators. Moreover, suppressing and forgetting the means by which Africans will remember their suffering, more violent assimilation and oppressive colonial administrations were used against Africa’s response to physical brutality (Vambe, 2012: 221).

Although the French colonial administration learnt colonial methods from the British, it can often be said that it developed more direct applications. The French colonial model is clearly intrusive. France’s mission is to civilize: for this, it aims to assimilate its colonies. Moreover, France’s Jacobin, centralizing political tradition also meant the centralization of colonial rule (Lawrence, 2016). From this point of view, French colonial attitudes and practices often characterize Republican France. From time to time, the missionaries operating in the French imperial lands and the secularists in the country may come face to face (Rhodes, 2019: 234). Léon Gambetta (1881-1882), one of the French prime ministers, especially known for his secularist practices, did not allow “*religious people to be employed in public service*” **during his time**. Gambetta, who targeted the church by saying “**Here is the real enemy!**”, supported the missionary priests in Africa until the end on the grounds that they “*spread the French language*” (Gildea, 1996: 49-51).

France, at every opportunity, belittled the local civil administrations they created in their African colonies (Griffiths, 2006: 512). The cultural suppression of the African people was usually done by different but systematic methods. Until it became taboo for colonial governments to talk about how Africans were mistreated among Africans, African dissidents were repeatedly physically assaulted and humiliated. French violence and terrorism, especially in Algeria,

include seizing herds of animals, looting granaries, destroying crops and gardens, killing their leaders, and burning villages and cities.

Although it is a very sad event to cause the death of up to 500 Algerians (Jalata, 2011: 12) who took refuge in the caves of Dohra by lighting a fire in front of the cave; it was seen as ordinary applications for that period.

In French Algeria, brutal French policies were so effective that some critics have described the cultural oppression and silencing caused by colonial violence groups as the “**Algerian syndrome**” . In this process, it is a historical fact that some Algerian men and women, or their relatives, fought as a result of the French assimilation policies and “**collaborative acquisition**” policies. It is also historically recorded that the French people collaborated with French imperialism by distorting or perpetuating the atrocities against Algerians in Algeria and France (Vambe, 2012: 222). About two hundred thousand Algerians who cooperated with French imperialism and remained loyal to the French during and after the independence struggle were called “**Harki**” and tens of thousands of them were killed (Allouche, 2021).

Undoubtedly, repression and terror were not limited to Algeria and Algerians. In 1958, for example, Guinea’s president, Sekou Toure, and his country became victims of this process. In Algeria, in the referendum on whether to join the French colonial monetary union, with the 95% decision to “**not participate**”, the government of Charles de Gaulle promptly recalled more than four thousand civil servants, judges, teachers, doctors and technicians, ordering everything left behind to be sabotaged and rendered useless. There is no account of burned books, destroyed buildings, destroyed agricultural vehicles, children’s playgrounds. The purpose of this anger is to make an example of other colonies. It is to clearly show the consequences of rejecting France. French commentators described this situation as “**divorce without alimony**” (Hundeyin, 2019). When Guinea wanted to use its own currency, France secretly printed large amounts of new money, causing inflation to skyrocket and the country to collapse economically.

Similarly, when Mali left the colonial Franks region in 1962, France pressured neighboring countries to limit trade with Mali. This caused the new currency to depreciate sharply. Today, there can be talk of a Mali that still hasn’t found calm. Eventually, France forced Mali to rejoin the French monetary system. France also continues to be skeptical of the assassination of two African presidents (Togo president Sylvanus Olympio in 1963, Burkina Faso president Thomas Sankara in 1987) who were also planning to introduce a national currency and remove their countries from the French monetary system (Fazi, 2019).

Although it is possible to replicate these examples, we have to settle for them as they will exceed the scope of our study. However, it can be said that there is a wide literature on violence, repression and terrorism by France and other colonial countries.

5. Is French Colonialism Over?

Africa is not a poor continent, it is a plundered continent. For a man whose house was robbed, “poor” is exoneration. Africa’s raw material and labor have been looted. It lost its life, property. Considering that the colonial history of the Europeans dates back three centuries, the people who were brought from Africa (!?) as slaves and the raaw materials of this continent gave birth to today’s rich Europe.

After all, it can be mentioned from evolution of the colonist. However, instead of these forces, it has survived to the present day by applying a wide range of strategies and tactics according to its time and the need of the situation. So much so that in today’s first quarter of the twenty-first century, it is seen that resistance to the colonists is increasing in all colonial countries, especially Africa. This is often stated in both academic and political discourses that it will lead the countries that provide the source of prosperity and wealth from colonial countries to economic instability, which will lead to political indiscretions.

Although the rhetoric that African colonial countries gained their independence after the Second World War is frequently included in the literature, France still controls these countries today. France currently holds about 500 billion dollars in African countries’ money in its treasury each year and is estimated to do everything it can to protect it. This is evident in the words of former French President Jacques Chirac in March 2008 that “Without Africa, France will become a third world power.” The statement of Chirac’s predecessor, François Mitterrand, in 1957 that “Without Africa France will not have a history in the 21st century” is important in terms of showing the place of Africa in the eyes of France.

When France withdrew from the colonies in Africa, it stipulated that the country’s official language and language of education should be French. Therefore, france-linked bureaucracy and administrations defending French interests have been opened.

French companies are the priority in public procurement and tenders in all colonies. If the French company does not want to, another company, domestic or foreign, may step in.

Monetary matters are highly controversial and entirely arranged in favor of France. France has held the national reserves of 14 African countries since 1961. A regular reserve report is reported at the end of the year. Approximately 85% of the total reserve is stored in the French Treasury. The country that owns the money can only use 15% of its own money. The country that wants more can use its own money by “borrowing”. This borrowing limit cannot exceed 20% of national income. If it exceeds, France “vetoes” the debt request. It is noted that with these funds collected from its colonies, as much as 500 billion dollars was raised in France. Moreover, African countries do not have access to this money (Spagnol, 2019).

It is noteworthy that African citizens have had to use the Paris connection for years, even if they are only going to another country with “Air France,” to show the extent of colonialism.

The French own most of the major economic assets in the African colonies. French companies operate almost all major services such as water, electricity, telephone, transport, ports and big banks. Trade, construction and agriculture are also in french ownership.

France works directly with French companies to maintain its dominance over its colonies, but also with local but “France-friendly companies”. For example, in a program launched only in Cameroon, young people from Cameroon, who are fluent in French among single, fit young people, were asked to be taken to France. Cameroonians reacted to the program on the grounds that the country needed doctors, engineers and well-trained technicians to thrive.

Although Frank is not even used in France, eight African colonies still use colonial Frank (CFA). The CFA’s purchasing power is determined from Paris and printed in Chamalières, the former French franc and now the place where the Euro was printed. On the Francs printed for Africa (such as Central African Franc, West African Franc) there are African figures suitable for every country. Any misstep of the country could result in automatic seizure of its reserves. The CFA is used by eight former French West African colonies, including the Republic of Benin, Burkina Faso, Ivory Coast, Guinea Bissau, Mali, Niger, Senegal and Togo.

France has also completed this economic operation militarily too. France is the priority in training African soldiers, providing security and military equipment, and establishing security-related alliances. Otherwise, coups and dismissals are carried out. For example, the African Union’s Ambassador to the USA, Zimbabwean diplomat Dr. Arikana Chihombori-Quao, was dismissed because he wanted the “Colonial Tax” taken by France to end.

France has kept in touch with the “Community of French-Speaking Countries” (Francophonie) colonies. “La Francophonie” is headquartered in Paris. About 100 million people in Africa speak French. In Africa, 27 of the 54 countries have French as their official language. African media and broadcasters are constantly broadcasting from newspapers, magazines, TV and radio stations to protect French interests.

Today, France pursues these interests in the Central Mediterranean, from North Africa to the depths of Africa. The goal is to rekindle the idea of “Great France”. Exploitation is sweet and its continuation is desirable. Africa is vital to France, and the French know it best.

6. Conclusion

Europe’s leading colonial powers acquired colonies in almost every region of the world from the end of the fifteenth century until the middle of the twentieth century. They transferred resources here with great recklessness. The fact that the cost of transferred resources is inexpensive in all respects has also created a rivalry between Western countries.

The 1884-1885 Berlin Conference resulted in an agreement in which Europe’s leading powers came together and shared the African continent, setting imperial boundaries to prevent a possible conflict in the future. After the First World War, the defeated countries of this war were deprived of all colonial property distributed.

The two most important colonial powers in Africa were France and Britain, which controlled two-thirds of the continent before the First World War and more than seventy percent after the war. From the mid-1800s to the early 1900s, imperial rule was at its peak in Africa (Khapoya, 2012: 100).

In addition to providing a show of strength and prestige in the nineteenth century, the colonization of countries resulted in European countries acquiring colonies in African countries with raw materials, manpower and market needs. Until the 1870s, only ten percent of the continent was controlled directly by Europe, while after the aforementioned 1884-85 Berlin Conference, they managed more than ninety percent in the early 1900s (Mülayim, 2017). In the history of the world, power struggles have arisen, which have greatly changed the boundaries of the international political sphere, the conquered territories, and significantly affected the indigenous peoples in the colonial countries under which they controlled it. As one of the most important colonial powers in modern history, France dominated large spheres of sub-Saharan Africa until

the formation of national liberation movements in the 1960s (Krupova & Cech, 2020: 291).

European powers, especially France and Britain, did not hesitate to produce an ideology that would legitimize their existence while maintaining their colonial empires. The British “white man’s burden” and the French “civilizing mission” formed the basic ideology of the colonial logic. In order for this mission to succeed, they did not hesitate to use all kinds of tools, especially racism, assimilation, repression-terror-violence, starting with the way of governance. However, in the first quarter of the current twenty-first century, the exploited countries began to question and demand back the material and spiritual resources taken from them. Looking at today’s Europe, there is an unease of conflicts between traditional peoples and people whose families have emigrated from abroad. The two colonial countries most affected are France and Britain. The wealth of both countries is based on resources obtained from their colonies. If this and other European powers had not attacked countries around the world and sown seeds of hatred; they wouldn’t turn into poisonous herbs that are spreading today. The huge literature on colonial culture and its practices will continue to attract more attention from researchers in the coming periods.

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CHAPTER XIX

BIBLIOMETRIC ANALYSIS OF THE RELATIONSHIP BETWEEN COVID-19, TURKEY AND AUTHORITARIANISM

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1. Introduction

Although Covid-19 was evaluated as a virus that escaped during the experiments carried out in the laboratory environment in Wuhan, China in 2019 or entered human life for an unknown reason in China, today it is a secret that still has not been brought under control, affecting every aspect of human life that has taken the whole world under control. continues to exist as an enemy. According to the reports of the World Health Organization, as of March 05, 2022, 446,511,318 confirmed cases, 6,004,421 deaths and 10,704,043,684 vaccines have been reported.¹

Covid-19 can be considered as a pandemic that is tried to be prevented within the framework of mask distance and cleaning rules. However, it should not be forgotten that the rules regarding masks and social distance are protested in many democratic countries. On the other hand, protests against vaccination as a form of protection have questioned democracy and authoritarian regimes. (Altınörs, 2021). Covid-19 has affected many fields, especially in the economic and political field, and has been the subject of different disciplines. For example, in his study examining digital politics, Gönül (2020) mentions that elections could not be held in nearly 50 countries due to Covid-19 and emphasizes that digital politics is gaining strength. On the other hand, there are studies

¹ <https://covid19.who.int/> (Accessed on 05.03.2022)

that deal with the fact that global politics has been seriously hit and reached a different dimension due to Covid-19 (Macar & Asal, 2020). In a world that has been so negatively affected for the first time since the Ebola virus, it has become inevitable for political regimes to mutate. In particular, the parameters of freedom and security have begun to be redefined and security concerns have arisen in many countries regarding the health system. Academic studies have been reported considering the relationship between securitization and Covid-19 (Dimari & Papadakis, 2022; Kirk & McDonald, 2021; Molnár et al., 2020; Stott et al., 2020).

In addition, there are publications (Aslan, 2021; Boschele, 2021; Duygu & Bayram, 2021) in Turkish literature examining the relationship between globalization and political participation and Covid-19, as well as studies dealing with Covid-19 in international politics (Osman, 2021). In terms of our study, when we enter the “political regime, Turkey and Covid-19 or Coronavirus” parameters in the topic section of the *Web of Science* database in accordance with the Boolean system, we get only six results. (Akkan, 2021; Altay, 2022; Eminoglu et al., 2020; Grancayova, 2021; San et al., 2021).

When we enter the studies examining Turkey related to Covid-19 in the political science literature, democracy, Covid-19, Coronavirus, political regime and Turkey parameters in accordance with the boolean system, we see that 4391 articles were published in the field of political science, field studies, international relations between the years 2019-2022. . However, we claim that there are no studies that examine the relations between documents, authors and publishers by making bibliometric analysis of these studies, and show which subjects are studied more with the number of citations.

Although there is a study on this subject in literature on Covid-19 in Turkish (Söyler & Tekindal, 2021), our study fills this gap because the Turkey parameter is missing in the relevant study. On the other hand, a bibliometric analysis of the publications scanned in *Web of Science* on democracy and Turkey has been reported, but this study (Cansun, 2021) did not address the parameters associated with Covid-19. In addition, our study differs in terms of method and data analysis. In fact, we use science mapping technique and Vos viewer software in our study. However, Söyler and Tekindal (2021) analyzed the relationship between liberal democracy and Covid-19 in G7 countries, using the Sankey diagram and Bayesian meta-analysis in their work, with the *RStudio Bibliometrix* program.

In this study, we will first consider bibliometric analysis. Then, we will analyze the relationship between Coronavirus, Democracy, Turkey and the

Political Regime, which is the subject of our study, through the data we obtained using Web of Science (WOS). Finally, we will evaluate the studies on this subject in the literature and discuss the contribution of the study to the field.

2. Bibliometric Analysis

Bibliometrics, previously called “statistical bibliography” (Hood & Wilson, 2001), is a field that studies publication patterns using quantitative analysis and statistics. Bibliometrics, sometimes called scientometrics, is a field concerned with the quantitative evaluation of scientific articles and other published works, including authors of articles, journals in which works are published, and citation counts (Jones, 2016). Articles published by an individual are increasingly justified by citation statistics, that is, by the number of citations in articles written by other scholars. Bibliometrics, also applied to journal, author, and article levels, are quantitative measures of scientific impact that help researchers and organizations make decisions about scientific output (Wisniewski et al., 2019). Bibliometrics focuses on certain features of publications and documents, and author, article, journal, organization, subject area are among the main units of this field. Researchers have used bibliometric methods for more than a century (Pritchard & Wittig, 1981), however, there is still no research on bibliometrics related to democracy publications. This article aims to fill the literature gap by focusing on the publications researching democracy in Turkey in the SSCI and AHCI indexes of *Web of Science*.

When we consider the techniques used in bibliometric analysis, two categories emerge. The first is performance and scientific mapping, which we call the main technique and the other is network analysis. While performance analysis examines the contribution ratio of research elements (author, institution, country, journal, etc.), scientific mapping examines the relationship between research elements. On the other hand, network analysis can be called a drill-down technique. In network analysis, there are sub-fields such as network measurement, clustering, and visualization. When we evaluate it in terms of our subject, we will examine the relationship between Covid-19 and democracy as scientific mapping. Science mapping is about the intellectual interaction and structural connections between research elements. Scientific mapping techniques include citation analysis, co-citation analysis, bibliographic matching, co-word analysis, and co-authorship analysis. When such techniques are combined with network analysis, bibliometric structure and intellectual structure related to the research field emerge. (Tunger & Eulerich, 2018).

When we elaborate on scientific mapping, citation analysis can be explained as the field that examines the intellectual relationship as a result of citing other publications in a publication with its simplest definition. Through citation analysis, we measure the impact of a publication. Citation analysis is also used to identify the most influential publications in a research field. (Appio et al., 2014). Although there are techniques such as network analysis in a field, attribution is the way to reveal the objective and directly measurable effect of a publication.

A second measurement technique is bibliographic coupling. Bibliographic coupling is “the joint use of one or more references by two documents” (Çilhoroz & Arslan, 2018). In other words, the same two publications refer to a publication. Bibliographic matching considers these two research articles to be related if two research articles cite one or more joint research articles. The number of common citations between two research papers is called bibliographic matching strength. The greater the value of bibliographic matching power, the higher the similarity between articles. Unlike the common citation approach mentioned below, in bibliographic matching, the references of the cited articles are taken into account when determining similarity. Therefore, bibliographic matching focuses on the benefits of recommending related articles. (Habib & Afzal, 2019).

Co-citation considers two research articles as related if one or more articles have cited an article. The researchers extended the co-citation to include content analysis (Boyack et al., 2013). The inclusion of content analysis in the co-citation has a constructive effect in confirming the accuracy of the proposed research article. That is, co-citation approaches using content analysis result in more relevant articles than traditional co-citation approaches. However, co-citation considers the relationship between articles based on their association with other articles without considering the content of the cited articles (Boyack et al., 2013).

Analyzing keywords requires the most important words or keywords of the documents to examine the conceptual structure of a research area. In this study, VOSviewer software was used to perform co-citation analysis of different nodes. “VOSviewer is bibliometric analysis software based on visualization of similarities (VOS), which creates a two-dimensional map which measures the similarity between analysis units (nodes) (for example, authors, publications, sources, or terms)” (Goyal, 2017). Likewise, the bond between the keywords is analyzed in examining Covid-19 and the political regime. by considering a longitudinal framework to observe the trends of the

field of political science (Callon et al., 1983). The use of keywords jointly allows us to quantify and visualize the thematic evolution of the political science and Covid-19 research field.

3. Method

Although many databases group research done globally, this study considers bibliographic data from Clarivate Analytics' Web of Science (WoS). In other words, in this study, data were collected using the WoS Core Collection. WoS is a "digital bibliometric platform recognized internationally among researchers for its high quality standards and has become one of the main tools for both researching and evaluating different types of publications and journals"(Thelwall, 2008). "Bibliometric analysis researchers consider WoS a very important database as it provides a set of metadata necessary for this type of analysis, including abstracts, references, number of citations, author lists, institutions, countries, and journal impact factor" (Gaviria-Marin et al., 2019). We realized the research by means of Boolean technique, which frequently requires some of the conjunctions as "AND", "OR", "NOT". We searched the following entries put in the topic in web of science. We conducted the search as follows²:

Coronavirus (Topic) or Covid-19 (Topic) and Turkey (Topic) or political regime (Topic) and Articles (DocumentTypes) and 2022 or 2021 or 2020 or 2019 or 2018 (PublicationYears) and Political Science or Area Studies or International Relations (Web of Science Categories) and 2022 or 2021 or 2020 or 2019 or 2018 (Publication Years) and Articles (Document Types) and Area Studies or Political Science or International Relations (Web of Science Categories). We limited our search period between 2018 and 2022 and the document type as article. Since the political science is closely linked with International Relations and Area Studies, the search of the area is limited to these areas.

2 <https://www.webofscience.com/wos/woscc/summary/d7574b8b-e5a6-4db3-83f9-4ff866dbee3b-2702bd29/relevance/1>

Table 1: Studies on Covid-19, Political Regime and Turkey by Area of Study. The data were received from Web of Science Core Collection.

Web of Science Categories	Record Count	% of 3.330
Political Science	2141	64.294
International Relations	942	28.288
Area Studies	888	26.667
Economics	215	6.456
History	120	3.604
Public Administration	84	2.523
Law	80	2.402
Sociology	79	2.372
Geography	62	1.862
Environmental Studies	59	1.772
Social Sciences Interdisciplinary	39	1.171
Asian Studies	35	1.051
Ethnic Studies	29	0.871
Social Issues	26	0.781
Communication	22	0.661
Women Studies	22	0.661
Cultural Studies	18	0.541
Religion	18	0.541
Business	17	0.511
Humanities Multidisciplinary	13	0.390
Development Studies	10	0.300
Philosophy	7	0.210
Business Finance	6	0.180
Ethics	6	0.180
Health Policy Services	6	0.180

Table 1 shows the distribution of the publications on Covid-19, political regime and Turkey by fields of study. According to Table 1, out of 3330 publications, Political Science has the most number of research based on the entries with 64.294%, which is 2141 followed by International Relations with 942 publications. This is followed by Area studies with 888 publications.

Table 2: Studies on Covid-19, Political Regime and Turkey by Country

Countries/Regions	Record Count	% of 3.330
USA	900	27.027
ENGLAND	379	11.381
RUSSIA	305	9.159
GERMANY	239	7.177
PEOPLES R CHINA	216	6.486
AUSTRALIA	129	3.874
CANADA	125	3.754
ITALY	123	3.694
SPAIN	116	3.483
NETHERLANDS	92	2.763
TURKEY	92	2.763
SWEDEN	83	2.492
SOUTH KOREA	66	1.982
NORWAY	54	1.622
SWITZERLAND	54	1.622
FRANCE	53	1.592
JAPAN	49	1.471
BRAZIL	48	1.441
SOUTH AFRICA	42	1.261
CZECH REPUBLIC	41	1.231
TAIWAN	41	1.231
ISRAEL	39	1.171
SCOTLAND	38	1.141
ARGENTINA	36	1.081
DENMARK	36	1.081
Showing 25 out of 115 entries		
65 record(s) (1.952%) do not contain data in the field being analyzed		

Table 2 suggests papers and research on Covid-19, Political Regime and Turkey by country. According to Table 2, the most published studies are originated from the USA followed by England and Russia. Only 92 publications are originated in Turkey while 1.952% of the publications, i.e. 65 record(s) do not contain data in the field of country.

4. Results

Based on the methodology explained above, the figures created by means of Vosviewer demonstrate the following results.

The results show us that when maximum number of authors per document is considered 25, and the minimum number of documents of an author is 5, out of 4767 authors only 13 meet the thresholds and the largest set of connected items consists of 3 out of these 13 scholars. The most cited author is Carl Henrik Knutsen with 90 citations to 6 documents on the subject. The most cited title “The Autocratic Welfare State: Old-Age Pensions, Credible Commitments, and Regime Survival” and the least cited title of Knutsen is “TRENDS: Leaders, Private Interests, and Socially Wasteful Projects: Skyscrapers in Democracies and Autocracies” published within the field of political science. Knutsen is followed by John Gerring and Ora John Reuter with the following publications : “Party Strength and Economic Growth by Gerring et al” and “Elite Defection under Autocracy: Evidence from Russia” by Reuter and Szakonyi. The following figure shows the connection between the three scholars.

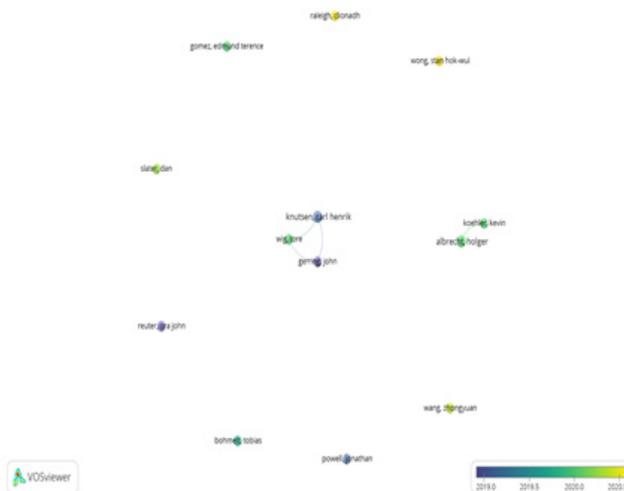


Figure 1. “Co-authorship network of authors with maximum 25 documents on the subject. Minimum number of documents of an author is 5 and out of 4767 authors only 13 meet the thresholds. The size of the node indicates the number of publications by the author. The nodes are colored based on the average publication year of the author using the color scheme depicted in the legend. The nodes closer to each other are more similar than nodes farther from each other. A link between two nodes indicates a co-authorship relationship for one or more publications. The figure was created using Vosviewer”.

The co-citation network of scholars suggests the cited authors and the minimum number of an author being 20 or more instances, out of the 89435 authors only 745 meet the thresholds and the most cited author is Steven Levitsky with 467 citations and the total link strength is 9871. 744 items are connected. The source of Levitsky is Competitive Authoritarianism. World Bank follows Levitsky with 309 citations and Barbara Geddes with 305 citations. Figure 3 shows the most cited scholars and the connections between the cited authors.

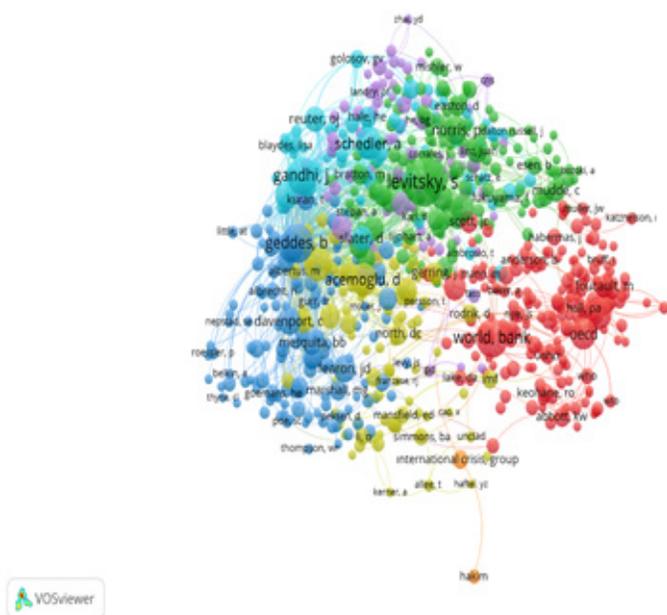


Figure 3. “Co-citation network of scholars referenced on 20 or more instances.

A node depicts an author in this network. The size of the node indicates the number of instances on which the author has been referenced. The nodes are clustered based on similarity—nodes in the same color are more similar than nodes in different colors; nodes closer to each other are more similar than nodes farther from each other. A link between two nodes indicates a co-citation relationship. The figure was created using VOSviewer”.

The co-citation of a source means the most cited source on a topic. When the minimum number of citation of a source is considered 20, out of 77510 sources only 840 meet the thresholds and the most cited source is American Political Science Review with 2406 citations and the total link strength of the source is 97635. The journal is followed by Comparative Political Studies with 1759 citations. The journal of American Journal of Political Science and the journal

of democratization are the two top sources cited most. Figure 4 shows the close links between the sources and their total link strength.

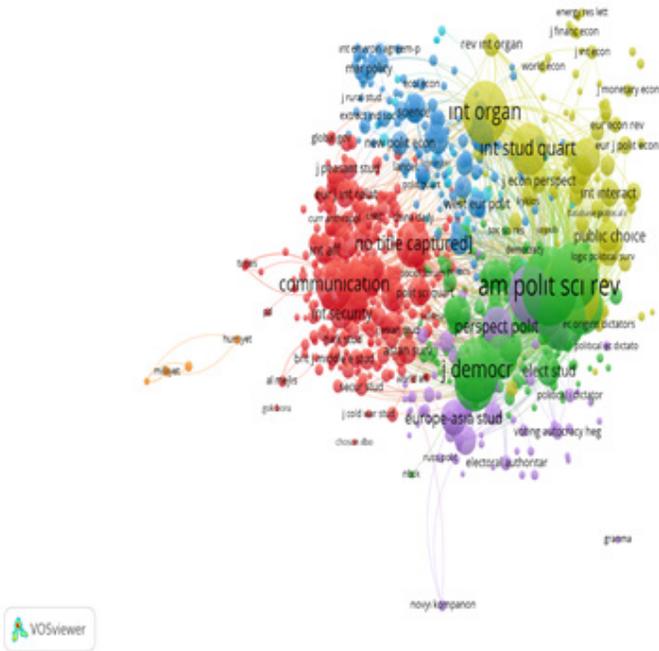


Figure 4. “Co-citation network of sources referenced on 20 or more instances.

A node depicts a source in this network. The size of the node indicates the number of instances on which the source has been referenced. The nodes are clustered based on similarity—nodes in the same color are more similar than nodes in different colors; nodes closer to each other are more similar than nodes farther from each other. A link between two nodes indicates a co-citation relationship. The figure was created using VOSviewer”.

The bibliographic coupling network of sources suggest the matching of sources and the minimum number of documents of a source being 5, out of 541 sources, only 220 meet the thresholds. Democratization and *mirovaya ekonomika i mezhdunarodnye* are the two sources with most citations followed by *Comparative Political Studies* with 414 citations to 52 documents. 89 documents were published in the journal of democratization while 69 documents in *mirovaya ekonomika i mezhdunarodnye*. Figure 5 suggests that 220 sources resulted in 16477 links and 362026 total link strength. The journals are considered top political science journals which specifically focus on political regime and regime survival.

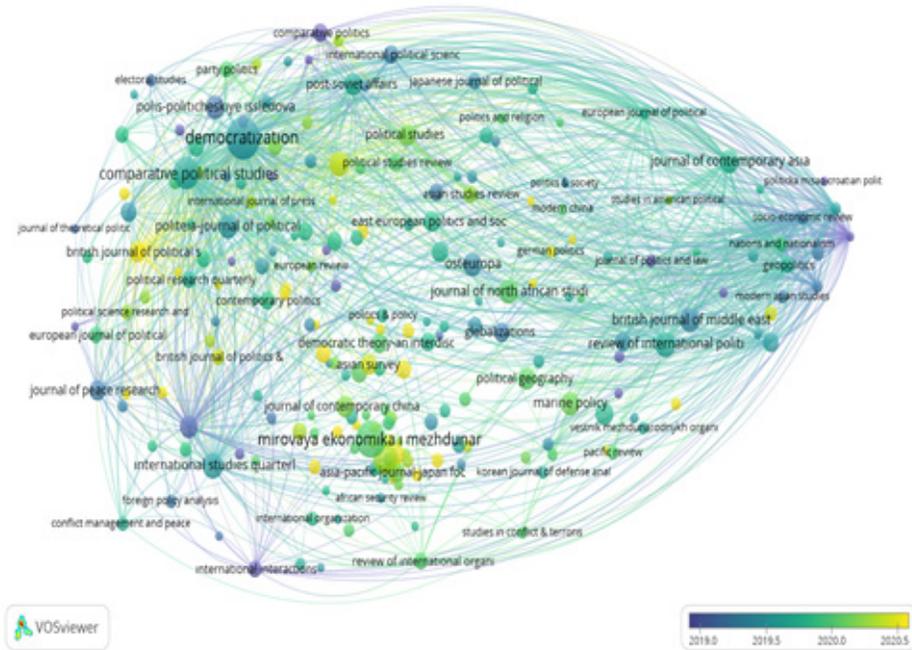


Figure 5. “Bibliographic coupling network of sources referenced on 5 or more instances. A node depicts a source in this network. The size of the node indicates the number of instances on which the source has been referenced. The nodes are clustered based on similarity—nodes in the same color are more similar than nodes in different colors; nodes closer to each other are more similar than nodes farther from each other. A link between two nodes indicates a bibliographic relationship. The figure was created using VOSviewer”.

The bibliographic coupling network of documents referenced on 5 or more instances explain the close relation between the publications and their popularity. The minimum number of citation of a document being 5, the document “Country Responses and the Reaction of the Stock Market to COVID-19-a Preliminary Exposition by Phan et al (2020)” published in *Emerging Markets Finance and Trade* is most cited with 180 citations followed by Waldner and Lust (2018) with “Unwelcome Change: Coming to Terms with Democratic Backsliding” with 120 citations. The largest set of connected items are 595 items. Figure 6 suggests the coupling of documents in the perspective.

the leading country with most publications on the topic is the USA with 900 publications. As to the organization with most publications, Russian Academy of Sciences is the leading institution while the number of publications published by Turkey related institutions is 92. The most prolific institution on our topic is the Middle East Technical University with 8 publications followed by Sabancı (8), Koc (7) and Bilkent (5) Universities.

As to the journals publishing specifically on Turkish politics, the leading journal is “Insight Turkey” which has published 8 papers followed by Journal of Balkan and Near Eastern Studies with 6.

With regards the language of publications, 2850 publications have been published in English; 242 Russian; 147 Spanish, German 32, French 22, Italian 14, Portuguese 12, Czech 4 and Turkish 3 while only one study has been published in Slovakian and Croatian

When we have analyzed the results of the data, we have found out that the publications lack of investigation into the political regime and higher education. That is, no study has been reported on the relationship between the pandemic, higher education and authoritarianism. In addition, securitization and health are the two popular topics to be examined within the political science and area studies. However, neither securitization nor the relation between securitization and health has been examined within this scope.

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