ADMINISTRATIVE, ECONOMICS AND SOCIAL SCIENCES
Theory, Current Research and New Trends

Editor
Asst. Prof. Dr. Selim DEMEZ


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In recent years, the World which in many areas mainly economic, political and social has undergone a transformation. The technological developments brought about by globalization and globalization have carried the economic systems to another dimension. Traditional economic policies may be insufficient in eliminating economic problems. For this reason, untraditional economic policies are applied and this situation brings along political transformations. In fact, the world has made a bottom in support of Kontartiev's view that capitalist economies are doomed to make a bottom and rise in a period of 50-60 years. When the Covid-19 pandemic, which emerged in China at the end of 2019 and affected the whole world, was added to all these negativities, people now accepted a new lifestyle and found themselves in a social order they had never faced before. Education and working lives of people have entered a new and unacceptable new order. Education is carried out digitally and remotely in the new world order. Adapting to this new situation can be very difficult for both educators and providers. Before the pandemic, scientific activities such as congresses, conferences and workshops, which allow for the exchange of ideas and information as well as socializing with their colleagues, were started to be held remotely in the digital environment. Although information and ideas can be exchanged with these remote scientific activities, it has almost eliminated the possibility of new ideas and collaboration by meeting, talking, spending time with academicians working in your own field of study. Despite everything, life continues. The life adventure of human beings in the world is actually a complete struggle. Mankind will also get used to this situation and life will continue. This book is a work that I believe will make a great contribution to the literature that has emerged with the combination of many qualified studies by valuable and expert academicians in the economic, administrative and social fields. I would like to thank everyone who brought this useful work to the literature.

Asst. Prof. Dr. Selim DEMEZ
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1. Introduction

In the fast-developing world of recent years, social, political, economic, technological and demographic changes have gained great speeds and importance. The environment today in which organizations act is not static, but rather complex and extremely competitive. The beginning of the 21st century is an era in which the information age has gained momentum and the concept of capital has turned from concrete to abstract. The highly complex and overly competitive environmental element is a result of technological revolution and globalization. This situation also means that the concept of strategy to be followed becomes increasingly complex by the time. On the other hand, change management is the management of strategic flexibility and renewal capability, and this capacity also forms the core of the strategy (Zan and Zambon, 1993).

Universities continue their activities as an important part of the environment where such changes and transformations are frequently experienced. Universities increase the cultural level of the society by transferring or producing information through education and research activities and at the end play a very important role in the formation of the information society (Navarro and Gallardo, 2003). In the new age, universities are defined as the “information factory” of the society (The Economist, 1997). Universities should have a very flexible organizational structure in order to adapt quickly to the requirements of the new age, to obtain sustainable competitive advantage and to continue their lives. Universities should also consider speed, efficiency, effectiveness and quality criteria in order to respond to the changing social needs of the society.

The production of value-added information to achieve this vision and the need for skilled human factor is increasing every day considering the vision of Turkey's future. This situation makes it obligatory for the higher
education system to have a competitive structure on a global scale. The primary purpose of this study is to address corporate university variables within the internal and external environment network with a strategic management system approach based on service quality, adapting to dynamic and complex environmental conditions, and to transform them into a viable model proposal for universities. The development of the model was based on Strategic Management and Total Quality Management process studies directly planned and executed by the authors of the current study at a foundation university.

2. Material and Method

With this research, it is aimed to define a generalized process on how a Strategic Planning and Management Process can be planned and carried out at state and foundation universities and to determine the relationship between the elements such as mission, vision, environmental analysis, goals, objectives and strategies. For this purpose, the model proposal was based on regular, planned and long-term strategic planning activities at a foundation university in Turkey.

The research has been put forward as a "case study" which is one of qualitative research methods. Qualitative analysis is exploratory and tries to explain how and why a particular social phenomenon or program functions in a certain context. It tries to help us understand the social world we live in and why events are like this (Polkinghorne, 2005).

The aim of qualitative research is to identify and interpret topics or events in terms of the person or population under study systematically, and to create new concepts and theories. The choice of the methodology is guided by the questions raised (Viswambharan & Priya, 2016).

In the study, it was proceeded towards a general strategic plan target by examining the examples of many state and foundation universities’ strategic plans through analyzing them both qualitatively and quantitatively by considering also the conditions of the existing foundation university to be studied. While doing this, Total Quality Management principles were used to ensure a solid ground formation.

3. The Concept of Strategy

The increasing importance of Strategic Planning and Management in recent years is due to the increasing pressure of quality, cost, performance and competition in general on both public and private organizations. These pressures have led the executives of the organizations to think long-term and act accordingly.

The main development of the concept of strategy, which is considered as a scientific discipline, stems from its importance in the military field. In this context, the concept of strategy came from the military literature to the
literature of strategic management and other disciplines, and the concept of strategy has been handled as a military concept for centuries. The concept of strategy means “achieving a determined goal” in business life (Luffman et al., 1996).

A strategy is a set of goals, objectives and tasks that define what an organization does or wants to do, what type of organization it is or wants to be, and the paths or methods that are followed or will be followed to achieve them. With these aspects, the strategy emerges as a concept that requires acting with a rational and scientific point of view and is related to getting prepared for the future, and also has an artistic and leadership aspect in relation to management. The strategy also includes and requires continuous development, environmental compliance and change management.

4. Strategic Planning and Strategic Plan

Strategic Planning is a concept that has started to be used first in the military field and then in all organizations upon understanding its importance since the World War II. It was defined by many scientists and researchers both in private and public administrations and was examined in detail. Its use started to become widespread in 1970s in higher education and in 1980s in other educational institutions as well.

Strategic planning consists of a combination of tools, processes and concepts that play a role in the development of the organization and the establishment of an effective strategy which enables the organization managers to think and act strategically (Bryson, 1995).

In today’s rapid changing environment, strategic planning is becoming more and more important. On the other hand, in today’s business world, strategic planning is suggested by top managements as the most important component for organizations to sustain their lives and have competitive advantage (Rashid et al., 2016: 422). Strategic planning is a continuous process which reflects the organizational vision and mission and provides an impulse to reach it (Ronchetti, 2006).

Strategic Planning concept emerged in the context of national planning in the public sector in Turkey in the 2000s and has created legal and administrative infrastructure in order to adopt the approach of strategic planning and implementation in public organizations. In this context, Public Financial Management and Control Law No. 5018, which came into force in 2005, has made strategic planning an obligation in public organizations. Thus, we can state that the concept of “Strategic Management” based on effectiveness and efficiency, which includes the concepts of participation, accountability and transparency in public services, has already begun to be adopted in Turkey.
It can easily be said that the Strategic Planning Process has positively contributed to the efficiency, effectiveness, institutionalization level, participation in management and development of responsibility behaviors in organizations, increased problem-solving capacity, flexible organization, decision making process, and therefore competition and innovation.

Although there are important open questions about the contribution of strategic planning to organizational performance, research provides a strong reason to believe that strategic planning contributes to other important results as well. Research shows that strategic planning plays an important role in strategy development which also includes the formulation of important problems of the organization, setting the goals, analyzing the alternatives, and choosing their strategies (Armstrong, J. S. 1982).

Strategic planning at universities is a process in which the strategic factors are analyzed in the internal and external environment of the university; the vision of the university and the goals that will ensure achieving this vision are defined; the strategies, tactics and practices that will ensure the achievement of the defined goals are determined; and whether the determined strategies, tactics and practices lead to success are monitored and evaluated. In this context, strategic management is an important technique that provides an improvement in management, organizational structure and service quality (Navarro and Gallardo, 2003). On the other hand, the Strategic Plan is the main product of the Strategic Planning Process and it is the highest level of guiding document that integrates the resources, efforts and activities of the universities to reach the determined goals and therefore the vision.

5. Strategic Management

Strategic Management can be defined as the process of using productive resources such as human resources, capital, raw materials and time efficiently and effectively in order to achieve the goals of organizations. Strategic management is not about the management of daily and ordinary affairs in the organization, but about the management of the works that will make it possible for the organization to survive in the long run while providing competitive advantages and also profits above the average in the sector.

In this framework, the implementation of strategic management principles is of utmost importance in universities within the scope of technology, innovation management and general governance. Strategic management also includes strategic planning as a top framework. Accordingly, it can be stated that strategic planning is an element of the strategic management.
Strategic management, on the other hand, is seen as a basic issue which explains the success or failure of firms. This requires discovering why some companies are successful and some are not, and determining the success factors (Rumelt et al., 1994).

Hoskisson et al. (1999) emphasized that although the basic motivation in this area is shared by all researchers regarding strategic management, the path to be followed is not so clear. According to them, this is because of the multidisciplinary and eclectic nature of strategic management among others and existence of the interests of researchers coming from different disciplines such as organizational theory, economics, psychology, sociology and management. As a result, researchers often have different approaches, backgrounds or foci.

Strategic management is essentially closely related to the internal issues of businesses and involves combining the workforce, capital, materials, infrastructure, processes and other possibilities in enterprises in an innovative and visionary integrity to increase organizational efficiency and competitiveness. In this respect, among all other fields, the concept of Strategic Management is extremely important especially in Industrial Engineering and Business Administration. In this context, the actual effects of strategic planning on organizational efficiency and profitability should be measured over time by implementing strategic plans and innovations realized through or as a result of these plans within the framework of strategic management principles.

5.1. Strategic Management and Its Important Objectives from a Modern Perspective

Strategic Management as a dictionary meaning is defined as the decisions of a company's managers to decide what they want to achieve and to plan how to use actions and resources over time to achieve this (Cambridge Dictionary).

Strategic management implemented in a business is expected to ensure that the organization is managed effectively and efficiently in order to sustain its long-term life, maintain sustainable competitive advantage and to generate returns above average profit rates in a competitive environment. The Strategic Management Process covers all steps such as information collection, analysis, selection, decision and implementation activities to achieve the business objectives.

In terms of modern view, it is possible to summarize the strategic management and its important goals as in Figure 1. Accordingly, strategic management consists of planning, organization, management, coordination and control components as a basic cycle, and as a result of these activities, it is possible to reach the long-term ultimate goals,
maintain the business existence, get sustainable competitive advantage and earn above average income in the market.

Figure 1. Strategic Management and Its Important Objectives from a Modern Perspective

6. The Importance of Strategic Plan for Universities

It is very important for universities to carry out their activities in a planned manner in order to reach a globally competitive higher education system within the framework of the administrative, financial and scientifically autonomous university model which is sensitive to the needs of the society and the economy; and interacts with its stakeholders; and transforms the information it produces into products, technology and services.

Strategic management process based on strategic plans implemented at universities within public administrations’ framework and public financial management reforms is the basis for determining the priorities that universities want to focus on in the medium and long term, ensuring fiscal discipline in the budget preparation and implementation process, allocating resources according to their strategic priorities, monitoring whether these resources are used effectively and developing a transparent accountability.

Along with globalization, the concept of sustainable competitive advantage has become one of the top priorities of the public and private sectors; and universities, public institutions and organizations are considered within this scope as well. Strategic planning is one of the most important tools for organizational change and transformation of the Turkish Higher Education System on a large scale. On the other hand, it is stated that one of the most important factors affecting the higher education institutional strategy is the financing system (Kettunen, 2008; Rolfe,
In this framework, a wide-ranging Strategic Plan has been put forward by the Higher Education Institution of Turkey (YÖK) covering the years 2016-2020 (YÖK, 2015).

Universities constitute a sector different from other public administrations. If there are more than one actor i.e. universities that offer the same service, it will be inevitable to have differentiation efforts among them. However, this differentiation is in the form of indirect approaches used in the struggle to gain superiority or to be preferred rather than direct competitive strategies aimed at making only profit similar to private sector enterprises.

This feature requires to combine traditional planning approaches used by public administrations on the one hand, and competition strategy and benchmarking approaches developed by private sector firms, in a manner specific to higher education sector.

The main reasons that will increase the scope and depth of the differentiation tendency among universities in the future can be listed as follows:

1. Continuous increase in the number of universities,
2. Increasing diversity in the higher education sector,
3. The increasing tendency of universities to internationalize,
4. Increased need of universities for more financial resources,
5. Evaluation of universities as a means of gaining and developing local, regional and national competitiveness,
6. The emergence of third generation universities where commercial logic stands out and is aimed at absolute profit,
7. New needs brought by the age as a result of increasing knowledge, developing technology and changing social needs.

This differentiation requires universities to specialize in certain areas, especially in the medium and long term. The fact that universities take place in a competitive environment and have administrative, financial and scientific autonomy necessitates the development of strategic plans with a university-specific approach.

6.1. Main Benefits of Strategic Planning and Management for Universities

It can be said that the strategic planning and management adopted by almost all state and foundation universities will have the following main benefits:

1. To establish stronger connection of strategic plans with other basic components of strategic management,
2. To ensure the prioritization of goals and objectives through efficient, effective and economic use of resources,
3. To provide an evidence-based decision-making process by better performance evaluation,
4. To contribute to the establishment of a sense of transparency and accountability in the management of higher education institutions by providing a basis for higher quality reporting.

7. Strategic Planning Process

In the literature research, it is seen that the concepts of strategic thinking and strategic planning are generally considered as similar concepts. Mintzberg (1994) argued that the concepts of Strategic Planning and Strategic Thinking are different. He claims that Strategic Planning actually affects Strategic Thinking negatively and therefore, strategies that can be considered successful are visions rather than plans. In other words, according to Mintzberg (1994), strategic planning is considered as a synthesis, while strategic thinking is seen as an analysis. According to Bryson (1995), strategic planning is the decision of the organization for what to do in the future. According to this definition, strategic planning consists of systematic efforts and activities in which decisions regarding production and implementation are made. Strategic Planning has a guiding nature about why organizations exist and why and what they do.

According to Bryson (1995), Keller (1983) and Steiner (1979), every stage of the Strategic Planning Process should be able to fully respond to the needs of the organization. And according to Adler and Lane (1988), there is no single model suitable for the Strategic Planning Process. The use of the Strategic Planning Process depends also on the power of management on planning. The Strategic Planning Process includes also unique situations. On the other hand, change can be related not only to organizational concepts but sometimes to the organization itself. According to Chan (1993), the Strategic Planning Process is evolving and developing as a cause of institutional change (Lovinguth, 1996). The ultimate goal of Strategic Planning is to achieve results as in other plans; however, in the Strategic Planning Process, environmental conditions and possible activities of competitors are also taken into consideration.

The Strategic Planning Process is specified as an 8-10 step process in various sources as:

1. Preparation phase for the Strategic Planning Process,
2. To determine an effective organizational vision,
3. To determine the organizational mission and values,
4. To determine the organizational duties and responsibilities,
5. Analysis of the internal and external environment of the organization (SWOT Analysis),
6. To determine the strategic issues of the organization,
7. To formulate the strategies,
8. To analyze and determine the strategic plans,
9. To develop an implementation process and related tactics which are effective,

8. Basic Working Principle of the Theoretical Model

During the development of the model, the Total Quality Management Philosophy composed of the Strategic Management System and the Quality Assurance System was used. Accordingly, as seen in Figure 2, as a result of the harmonious integration of the strategic management system and the quality assurance system in the broadest sense; the Total Quality Management Philosophy, which ensures efficiency and profit maximization can emerge and thus sustainable competition conditions can be achieved.

![Figure 2. Basic Working Principle of the Theoretical Model](image)

8.1. Basic Framework of the Theoretical Model

As shown in Figure 3, during the development of the Strategic Management Model, the main framework on which all activities are carried out, was first defined. In the defined main frame, considering that;

- University and all its related units with internal environmental conditions,
- Institutional goals and objectives,
- External environmental conditions such as economic, political, social, technological, and legal conditions in which the institution operates,
- Strategies derived from the goals and objectives and affected by external environmental conditions,
- Values produced for stakeholders as a result of all these activities
are found, and it can be said that achieving a sustainable development and competition can only be possible through harmonious integration and management of all these variables.

**Figure 3.** The Basic Framework of the Theoretical Model

### 8.2. Basic Inputs and Outputs of the System Defined by the Strategic Management Model

The basic inputs and outputs of the theoretical model are shown in **Figure 4.** According to this model; while

- Physical resources,
- Financial resources,
- Human resources and
- Information and knowledge sources

all constitute the basic inputs and with the help strategic planning to be implemented, the followings are the main outputs that need to be controlled and followed at the end of the process of whether they are realized or not:

1. Strategic Plan (5 Years),
3. ISO 9001 Quality Certificates for Administrative Units,
4. Programs and Departments Accredited for Academic Units,
8.3. Strategic Plan Development Process for Universities

The main process of the proposed theoretical model is as shown in Figure 5. Accordingly, by establishing a Strategic Planning Process based on institutional goals and objectives, it is necessary to finalize a strategic plan at the university level and to determine the strategies to be implemented within this plan to achieve the goals and objectives.

The following steps are recommended for a fast and efficient implementation of the process:

1. Election and appointment of the following committees in a way to provide the widest representation:
   a. Strategy Steering Committee (University level),
   b. Strategy Planning and Development Board (Faculties, Institutes and Vocational School level) and
   c. Quality Commission (University level).

2. Obtaining the vision and expectations of the University Rectorate by the Strategy Steering Committee,

3. Examining all processes by discussing all of them in detail at the current and required status levels according to a certain plan determined by the board by means of regular meetings,

4. Collecting and compiling the opinions about the current situation and things to be done by the board at the level of faculties, institutes, and vocational schools,

5. Determining the main goals and objectives of the university in a hierarchical order considering the institutional vision and mission according to the opinions received internally and also, the board's own vision and studies,

6. Putting forward a Strategic Plan compatible with the short, medium- and long-term goals and objectives ready for sharing at the university level at the end of the Strategic Planning Process based on the opinions taken internally and the board's own vision and studies,

7. Determination of basic strategies, implementation plans and
distribution of tasks for what needs to be done at the application level according to the outcomes of the strategic plan,
8. After the distribution of tasks to be carried out, periodic checks and inspections regarding the implementation are made, the progress and the achievement of the targets is measured, and the strategic plan is updated when necessary.

Figure 5. Strategic Plan Development Process for Universities

The detailed process of the proposed theoretical model is shown in Figure 6. The most important issue here is that the analyses are carried out at two main levels; namely university level and separate units’ level. According to this:

1- At university level and under the leadership of the Strategy Steering Committee;
   • University analysis,
   • Stakeholder analysis,
   • Value chain analysis,
   • Basic competencies analysis,
2- At units’ level and under the leadership of the Strategy Planning and Development Board and the Quality Commission;
   • Unit analysis,
   • Stakeholder analysis,
   • Value chain analysis,
   • Basic competencies analysis
According to the results of the examinations and analyzes to be carried out, it is necessary to identify strengths and weaknesses, opportunities and threats through workshops and meetings, by applying SWOT analysis method both on the basis of universities and units. As a result of these studies; goals, objectives, strategy and priorities, mission, vision and other critical issues can be determined at university and units’ level completely.

**Figure 6.** Detailed Process of Strategic Plan Development for Universities

### 9. Results and Evaluation

As a result, “Modern Strategic Planning and Management Model for Universities” will be created by harmoniously bringing together all the studies prepared at university and units’ level.

#### 9.1. Modern Strategic Planning and Management Model for Universities

The model shown in **Figure 7** is proposed as the Modern Strategic Planning and Management Model in the light of the results and evaluations obtained from the comparisons, analysis and studies made during the Strategic Planning Process. Although similar studies have been carried out in other state and foundation universities, no any other study that presents the process as a Modern Strategic Planning and Management Model in this way has been found in the literature. According to the model shown in **Figure 7**, firstly, due diligence is made under the headings of Preparing for
Strategic Planning, Situation Analysis, Looking Forward, Differentiation Strategies and 5-year Strategic Traceable Forecasts at both university and units’ level. Subsequently, the strategic and tactical activities to be implemented in the light of the determined vision, mission, goals and objectives are decided. The University Strategic Plan will emerge as a result of bringing together all studies to be made on the basis of university and its units.

Figure 7. Modern Strategic Planning and Management Model for Universities

In the preparation process of strategic planning studies, the future vision of the Board of Trustees and the Rectorate should be determined and put forward. Otherwise, it can easily be said that the strategic plan studies cannot be carried out without open and continuous support of the senior management.

While forming the supreme board, committee and commission a wide representation of university units should be provided as much as possible, considering the necessary competencies as well. The contribution of all university units in the process should be determined and questioned by ensuring full participation and support.

In the proposed model, while the results of the studies conducted at the university level can be considered as independent variables (Xi), the
studies at the units’ level such as faculties, institutes, academic and administrative departments, etc. can be viewed as the dependent variables (Yi). Because the senior-level studies and related results of the Strategy Steering Committee are the basic binding inputs for all university units.

In the strategic planning and management study envisaged in the relevant model, it has been clearly observed that permanent success can be achieved with the following conditions and the formation of these conditions should be ensured in any case:

- The existence of an internal Quality Assurance Culture to be adopted at corporate level,
- Continuous communication and cooperation with all stakeholders,
- Continuous monitoring, tracing, and evaluation,
- Learning organization and continuous improvement.

Special emphasis should be placed on the fact that all the work done on Strategic Planning is formulated to gain satisfaction and benefit by generating value for all internal and external stakeholders, from the board of trustees to academics, administrative staff and students. Another point to emphasize is that a strategic plan on a university basis can only be made by considering everything including management with processes, statistical management and understanding and using the necessary competencies. In general, strategic planning and its implementation for all institutions and businesses as well as for a private foundation university is essentially possible through the change and transformation of mentalities.

It is also important to note that making a strategic plan also means opening the university to structural changes and transformations and forcing the transformation of understanding as well. Finally, it should be noted that, the main purpose of a strategic plan as a result of research, examination and analysis of all processes is not to create new obligations, dependencies and jobs for individuals, units or institutions; but on the contrary, it has the aim of managing and increasing the competitive capacity of the institution as a whole.

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IMPACT OF COVID-19 ON STOCK MOVEMENTS OF TRANSPORT COMPANIES: EVIDENCE FROM COMPANIES LISTED IN BIST TRANSPORT INDEX

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1. Introduction

The global economy is expected to shrink by 4.3 percent in 2020 due to the pandemic (COVID-19) that has caused more than 1 million people to lose their lives and jobs since the first day of its emergence (UNCTAD, 2020: 8). Coronavirus epidemic that emerged in Wuhan, China in late 2019 caused the international trade to slow down as the epidemic spread all over the world. In line with the instructions of the World Health Organization, countries have initiated a partial curfew and changed people’s lifestyle and shopping preferences from physical to digital. In addition, foreign trade of the countries was restricted and there was a decrease in transportation sector revenues (Akçacı and Çınaroğlu, 2020: 447). The already fragile economic conditions at the time of the outbreak created unprecedented disruptions and exposed the vulnerability of many households and many sectors that were already disadvantaged (UNCTAD, 2020: 8). Since the demand for transportation activities has derived demand structure, it is possible to say that the transportation sector is one of the sectors that was affected the most by the pandemic and affected the pandemic the most. Cause according to United Nations Conference on Trade and Development (UNCTAD, 2020: 8) with globalization, the increased dependence and interaction of countries with each other became a weakness in the Covid-19 period, and the Corona virus progressed rapidly with the help of transport corridors and travel connections, which are considered the main arteries of the global economy.

One of the places where this effect naturally reflected the most is the stock market. Stock exchange markets are the institutions where investment instruments are traded in the country. Therefore, like other investment instruments, they are directly affected by domestic and global macroeconomic variables (Hussainey and Khanh, 2009; Ali et al., 2010; Adaramola, 2011). In addition, as transactions are performed daily and dynamically, it is seen by some researchers as a better investment indicator than GDP and consumption data (Aylward and Glen, 2000). For this reason, it was identified as the most important leading indicator of
economic growth by many researchers (Chaudhuri and Smiles, 2004; Enisan and Olufisayo, 2009; Olweny and Kimani, 2011).

In this study, it is aimed to determine the effect of the COVID-19 virus on the movements of the stock values of the companies operating in the Turkish transportation industry. For this, we found it appropriate to use unit root tests with structural break, since these tests enable to determine level and trend breaks in the movements of the series. As a result of the analysis we conducted by taking into consideration the stock prices of the companies listed in the BIST Transportation Index, it has been determined that the stock values of most companies have been exposed to structural breaks due to the effect of COVID-19 and their levels and trends have changed. While the break effect was temporary in stock values of some companies, it caused permanent changes in others.

In the second section, the literature on stock markets is summarized and the framework of our study is formed. The method and dataset used in the research are introduced in the third section. After the findings obtained from the analysis are presented in the fourth section, evaluations are made in the last section.

2. Literature Review

Even if the emergence of the pandemic is relatively new, due to the importance of the subject, there are many publications in the literature examining the relationship between COVID-19 and stock exchange markets. As more than 80% of the global commodity trade in terms of volume and more than 70% of it in value is carried out by maritime transport (UNCTAD, 2020: 16), maritime industry related studies can be found intensely in the literature. In addition, there are studies examining the impact of COVID-19 on stock prices of different industries such as tourism industry, airline industry, retail industry, oil industry, etc.

Stock markets, which are indicative of economic, political, social and cultural developments, react quickly to new information and the decreases in these indexes show the increasing risks and uncertainty in economies. Şenol (2020) has been conducted a general market analysis and stated that the asset that fell the most was the US treasury bond yields, followed by oil prices in the pandemic period. The decrease in the demand for coal, gas and electricity worldwide in the first quarter of 2020 caused the oil-based industries to be more affected by the epidemic. In addition, the author stated that service areas such as transportation, accommodation, restaurant, cafeteria, entertainment, cinema, theater, tourism and the industrial sector in countries where production is suspended are sectors that are highly affected by the epidemic while health and retail sectors as the sectors that gained from the epidemic by increasing their demand during the epidemic (Şenol, 2020: 13).
Kılıç (2020: 76), on the other hand, arguing that crises may have positive results for some sectors while affecting the economies of countries and financial markets, examined the impact of the COVID-19 virus on the BIST sector indices with the event study method to examine whether the indices of these sectors will move in the opposite direction of the market index. As a result of the study, it was determined that the index decreases in the world markets due to the coronavirus were also experienced in the BIST sector indices and significant negative returns were obtained in many sectors, especially on the first day of the case in the country. It was observed that the highest positive returns were in the trade sector while the negative returns were in the tourism and textile sectors.

In a study that analyzed relationship between stock exchange and freight rates in the transportation sector claimed that stock exchanges can be regarded as leading indicators for production levels and thus for the flow of goods in the country, as they are reflection of economic activities in the country. In a study that tested this situation for the maritime industry, Başer and Açık (2018) examined the relationship between the indexes including the BIST Transportation index and the freight rates in the ISTFIX region. As a result of their analysis with the asymmetric causality test, they determined that the negative shocks in the stock market indices were the cause of the negative shocks in freight rates. In this case, it would not be wrong to say that the sectors that are more affected by the epidemic also reflect the results of these negative effects to the network stakeholders that they are in.

One of the most important factors affecting international trade is exchange rates and they have a direct impact on trade volumes between countries. In this context, one of the studies examining the relationship of BIST Transport Index with exchange rate was conducted by Açık et al. (2020a). The authors examined how positive and negative shocks in the USD / TL exchange rate affect the index values. According to the results of the analysis they obtained by applying the asymmetric causality test, positive shocks in the currency are the cause of the positive shocks in the index, and the negative shocks in the currency are the cause of the negative shocks in the index. In the literature, stocks and exchange rates move in the opposite direction as they are generally alternative investment instruments, but opposite results have been obtained in the transport index. The researchers stated that this situation may be the result of the positive effect of increasing exchange rates on exports, since the demand for transportation activities increase when the international trade increase.

Also, the markets in which stocks are traded are very effective on their movements. Because the situation in the macroeconomic indicators of the traded country affects the demand for the stocks, and although the stocks
are international investment instruments, macro indicators may differ from country to country. In this respect, in a study examining the price bubbles in the stock values of global maritime companies and the correlation between these bubbles, Açık et al. (2019) found that the price bubbles in stocks traded in the same market generally follow parallel courses. The correlations between these stocks are positive and significant. Another issue about the stock prices is that they are affected by many macro variables and are therefore very susceptible to shocks. In addition, they may be intervened by some decision makers due to company policies and strategies. This situation may cause the loss of these characteristics of the stock values that are expected to move randomly. Açık et al. (2020b) tested whether Efficient Market Hypothesis (EMH) in weak form is valid for the stock values of major container companies operated around the world. As a result of the research, they determined that EMH is not valid for any stock values and prices do not move randomly. In other words, prices are affected by many factors and there are dependencies with past values. The results of this study were deemed important as the study was structured on the transport sector and this claim was falsified for this sector, whose stock exchange movements during the Covid-19 period will be examined in the continuation of the study.

Finally, a study carried out by Sansa (2020) aimed at investigating the impact of COVID-19 on financial markets and examined how the Chinese and American stock markets responded to the COVID-19 process using time series data from the Shanghai Stock Exchange and New York Dow Jones Stock Exchange between March 1, 2020 and March 25, 2020. In the study it has been determined that there is a positive and significant relationship between COVID-19 and Shanghai and New York Dow Jones Exchanges within the time frame tested. Author used simple regression model in the study and determined the most important result of the study is that COVID-19 has proven its impact on the financial markets of China and the USA, which are considered to be two important powers of the world (Sansa, 2020). The impact of the COVID-19 virus on developing countries will be examined over Turkey in the conclusion part of this study.

3. Methodology and Data

The structures of economic and financial series may be subject to structural breaks due to some factors and their linearity may deteriorate. These factors may be crises (Bildirici & Turkmen, 2015), sudden changes in the economic structures, reform policies, changes in the industrial production levels (Ajmi et al., 2013), and, as recently, global pandemics.

In this study, unit root tests that take structural breaks into account have been used to determine the possible changes in the movements of stock values of transport companies in the COVID-19 period. From these
methods, the tests that take into account one and two breaks and also take into account breaks in level and both level and trend were selected. The first test is one break ADF test developed by Zivot & Andrews (1992), and the second one is two breaks ADF test developed by Narayan & Popp (2010). Since these tests are unit root tests, their null hypothesis indicates that there is a unit root. The rejection of the null hypothesis indicates stationarity. In this study, we consider the structural break dates in the findings where null hypothesis were rejected as the significant break dates.

The stocks used in the study consist of the assets of the companies that make up the BIST Transportation Index. Stocks of these companies are BEYAZ, CLEBI, DOCO, GSDDE, PGSUS, RYSAS and THYAO. Explanations of these symbols are presented in Table 1. Time series data for the shares are obtained from the Investing (2020) website.

Table 1 Included companies

<table>
<thead>
<tr>
<th>Code</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEYAZ</td>
<td>Beyaz Filo Oto Kiralama AS</td>
</tr>
<tr>
<td>CLEBI</td>
<td>Celebi Hava Servisi AS</td>
</tr>
<tr>
<td>DOCO</td>
<td>DO &amp; CO AG</td>
</tr>
<tr>
<td>GSDDE</td>
<td>GSD Denizcilik Gayrimenkul Insaat Sanayi ve Ticaret AS</td>
</tr>
<tr>
<td>PGSUS</td>
<td>Pegasus Hava Tasimaciligi AS</td>
</tr>
<tr>
<td>RYSAS</td>
<td>Reysas Tasimacilik ve Lojistik Ticaret AS</td>
</tr>
<tr>
<td>THYAO</td>
<td>Turkish Airlines</td>
</tr>
</tbody>
</table>

The dataset consisting of 99 weekly observations covers the period between 6.01.2019 and 22.11.2020. In order to better monitor the COVID impact, we started the dataset since the beginning of 2019, when there was no virus effect. It was considered appropriate to start in early 2019, as the use of older datasets may highlight breaks due to other factors. Considering the average values, DOCO has the highest value with 452 liras. The following CLEBI has an average value of 82, and PSUS 50 liras.

When the volatilities are analyzed through the ratio of the standard deviations of the variables to their means, volatilities occur as follows; 52.4% for BEYAZ, 18.3% for CLEBI, for 21.8% for DOCO, 49.8% for GSDDE, 31.5% for PGSUS, 80.7% for RYSAS and 13.0% for THYAO. According to these values, the most volatile stock belongs to RYSAS company and then to BEYAZ company, and these stocks come to the fore as very risky investment instruments. When the weekly average returns of stocks are analyzed, the values are; 1.19% for BEYAZ, 0.43% for CLEBI, -0.06% for DOCO, 1.44% for GSDDE, 1.04% for PGSUS, 2.70% for RYSAS and -0.24% for THYAO. According to these values, although RYSAS has the highest volatility, it has earned the highest average return.
Other stocks with the highest average return are determined as GSDDE and BEYAZ. Finally, when the final values are proportioned to the initial values of the stocks, the following change values are obtained; 222% for BEYAZ, 52% for CLEBI, -6% for DOCO, 308% for GSDDE, 177% for PGSUS, 1314% for RYSAS and -21% for TYHAO. According to these values, RYSAS showed an extreme increase in value. In addition, the change in the stock values of GSDDE, BEYAZ and PGSUS is also very high.

Table 2 Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>BEYAZ</th>
<th>CLEBI</th>
<th>DOCO</th>
<th>GSDDE</th>
<th>PGSUS</th>
<th>RYSAS</th>
<th>THYAO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.16</td>
<td>82.8</td>
<td>452</td>
<td>2.57</td>
<td>50.2</td>
<td>3.89</td>
<td>12.2</td>
</tr>
<tr>
<td>Med.</td>
<td>3.47</td>
<td>81.0</td>
<td>488</td>
<td>2.10</td>
<td>48.4</td>
<td>3.35</td>
<td>12.1</td>
</tr>
<tr>
<td>Max.</td>
<td>12.43</td>
<td>113.5</td>
<td>638</td>
<td>5.30</td>
<td>84.7</td>
<td>12.7</td>
<td>15.0</td>
</tr>
<tr>
<td>Min.</td>
<td>2.50</td>
<td>51.00</td>
<td>253.5</td>
<td>1.19</td>
<td>22.2</td>
<td>0.64</td>
<td>7.98</td>
</tr>
<tr>
<td>Std.D.</td>
<td>2.18</td>
<td>15.18</td>
<td>98.4</td>
<td>1.28</td>
<td>15.8</td>
<td>3.14</td>
<td>1.59</td>
</tr>
<tr>
<td>Skew.</td>
<td>2.48</td>
<td>-0.02</td>
<td>-0.32</td>
<td>0.68</td>
<td>0.17</td>
<td>0.41</td>
<td>-0.22</td>
</tr>
<tr>
<td>Kurt.</td>
<td>8.02</td>
<td>1.96</td>
<td>1.78</td>
<td>1.95</td>
<td>2.18</td>
<td>1.95</td>
<td>2.47</td>
</tr>
<tr>
<td>J.-Bera</td>
<td>206.3</td>
<td>4.40</td>
<td>7.80</td>
<td>12.1</td>
<td>3.27</td>
<td>7.41</td>
<td>1.97</td>
</tr>
<tr>
<td>Prob.</td>
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<td>0.11</td>
<td>0.02</td>
<td>0.00</td>
<td>0.19</td>
<td>0.02</td>
<td>0.37</td>
</tr>
<tr>
<td>Obs.</td>
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<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Investing (2020).

In the next section, the results we have obtained from econometric analysis are presented. The logarithms of the series are used in econometric analysis.

4. Results

For the analysis of structural breaks in stock values, unit root tests that take into account structural breaks in level and both level, and trend are applied and their results are presented in Table 3. Applied tests are one break ADF test (Zivot & Andrews, 1992) and two breaks ADF test (Narayan & Popp, 2010). These tests can detect single and double structural breaks. The determined structural break dates in both level and trend are also presented in the table. According to these results, the unit root null hypothesis in all stock values is rejected by at least one of the tests. This indicates that the shocks in stocks are not permanent and prices tend to return to the average. In the following section, the determined significant break dates are presented visually in order to evaluate more easily.
After the structural break dates are determined, the significant break dates on the stock values of each company are marked in the figures. In this way, it was aimed to determine and verify the effect of COVID-19 on stock values of Turkish transportation sector statistically.

Firstly, significant structural breaks determined for BEYAZ is presented in Figure 1. Dates of the determined level breaks are 19.05.2019, 2.02.2020 and 22.03.2020, while dates of level and trend breaks are 7.07.2019 and 5.03.2020. Since the emergence period of COVID-19 is in the end of 2019 and early 2020, it is not a striking break, although there is a partial positive movement and break. Apart from this, a significant upward trend has been observed recent months. However, since this

### Table 3 Unit root tests with structural breaks

<table>
<thead>
<tr>
<th>Part</th>
<th>BEYAZ</th>
<th>CLEBI</th>
<th>DOCO</th>
<th>GSDDE</th>
<th>PGSUS</th>
<th>RYSAS</th>
<th>THYAO</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF</td>
<td>-4.58*</td>
<td>-4.73*</td>
<td>-8.93***</td>
<td>-5.18**</td>
<td>-5.55***</td>
<td>-4.66*</td>
<td>-3.80</td>
</tr>
<tr>
<td>Stat</td>
<td>19.05.19</td>
<td>22.03.20</td>
<td>15.03.20</td>
<td>7.06.20</td>
<td>22.03.20</td>
<td>19.01.20</td>
<td>15.03.20</td>
</tr>
<tr>
<td>Date</td>
<td>0.80</td>
<td>0.36</td>
<td>0.37</td>
<td>0.25</td>
<td>0.36</td>
<td>0.45</td>
<td>0.37</td>
</tr>
<tr>
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<td>4</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>BDF</td>
<td>-4.40**</td>
<td>-5.83***</td>
<td>-10.4***</td>
<td>-6.61***</td>
<td>-6.16***</td>
<td>-7.25***</td>
<td>-5.11***</td>
</tr>
<tr>
<td>Stat</td>
<td>21.06.20</td>
<td>22.03.20</td>
<td>12.04.20</td>
<td>7.06.20</td>
<td>12.04.20</td>
<td>15.03.20</td>
<td>19.04.20</td>
</tr>
<tr>
<td>Date</td>
<td>0.23, 0.36, 0.75</td>
<td>0.33, 0.26, 0.89</td>
<td>0.33, 0.36</td>
<td>0.37, 0.32, 0.36</td>
<td>0.44</td>
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<tr>
<td>Fraction</td>
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<td>7</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Lag</td>
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<td>0</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>ADF</td>
<td>-3.64</td>
<td>-5.00*</td>
<td>-8.98***</td>
<td>-5.29**</td>
<td>-5.33**</td>
<td>-4.83*</td>
<td>-3.98</td>
</tr>
<tr>
<td>Stat</td>
<td>12.04.20</td>
<td>22.03.20</td>
<td>15.03.20</td>
<td>7.06.20</td>
<td>22.03.20</td>
<td>26.01.20</td>
<td>15.03.20</td>
</tr>
<tr>
<td>Date</td>
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<td>0.36</td>
<td>0.37</td>
<td>0.25</td>
<td>0.36</td>
<td>0.44</td>
<td>0.37</td>
</tr>
<tr>
<td>Fraction</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Lag</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>BDF</td>
<td>-5.19**</td>
<td>-6.96***</td>
<td>-10.4***</td>
<td>-6.48***</td>
<td>-7.66***</td>
<td>-10.3***</td>
<td>-5.69***</td>
</tr>
<tr>
<td>Stat</td>
<td>15.03.20</td>
<td>12.04.20</td>
<td>12.04.20</td>
<td>7.06.20</td>
<td>12.04.20</td>
<td>15.03.20</td>
<td>15.03.20</td>
</tr>
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<td>Date</td>
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<td>0.68</td>
<td></td>
<td></td>
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<tr>
<td>Fraction</td>
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<td>0</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Lag</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

Part A: Break in level, Part B: Break in level and trend. Symbols correspond to *10%, **5%, ***1% confidence intervals.
change is outside the shock effect of the virus, it cannot be said that a significant effect has been detected for our research.

The structural breaks for CLEBI are presented in Figure 2. The determined level break dates are 23.06.2019 and 22.03.2020, while determined level and trend break dates are 22.03.2020 and 12.04.2020. The striking effect of the virus is seen in this stock value. In addition, the tests detected significant breaks in both level and trend.

The determined structural breaks in the stock value of DOCO are presented in Figure 3. Level break dates are 15.03.2020 and 12.04.2020, while level and trend breaks are 29.12.2019, 15.03.2020 and 12.04.2020.
At the beginning times of the COVID 19 pandemic, the value of the stock of the company moved in a positive direction, with a break in the level and trend. However, afterwards, it moved downwards due to possible economic recession and experienced a structural break again.

![Graph of DOCO stock value with breaks indicated]

**Fig. 3 Structural breaks in DOCO**

The breaks detected for GSDDE are presented in Figure 4. Level break dates are 17.03.2019 and 7.06.2020, and level and break dates are 20.10.2019 and 7.06.2020. The stock value, which increased with the break in the beginning of the virus period, started to decrease due to the restrictions within the scope of COVID measures. Then, it started to rise again and continued its positive trend, albeit slowly.

![Graph of GSDDE stock value with breaks indicated]
The structural break dates of the PGSUS are presented in Figure 5. Level break dates in the stock value are 22.03.2020 and 12.04.2020. Level and trend breaks are 8.09.2019, 22.03.2020 and 12.04.2020. As it can be seen from the chart, there is a sharp decline in stock value after COVID-19. Our structural break tests have detected breaks in the level and trend after the sharp decline. The drop in airline demand following transport restrictions may be the main reason for this. There was an increasing trend after decline since the restrictions were lifted afterwards, but the average level still keeps its dominance.

![Fig. 4 Structural breaks in GSDDE](image)

The structural breaks of RYSAS are presented in the Figure 6. The determined level break dates are 19.01.2020, 26.01.2020 and 15.03.2020, while level and break dates are 14.07.2019, 26.01.2020 and 15.03.2020. The stock value of the company has skyrocketed with a trend break until the beginning of the COVID period. However, it then declined again, experiencing a break in level and trend. This downward trend has evolved into an increasing trend on average, again experiencing level and trend break.

![Fig. 5 Structural breaks in PGSUS](image)
Fig. 6 Structural breaks in RYSAS

The graphic regarding the breakdown in the share values of THYAO company is presented in Figure 7. Structural level break dates are 22.03.2020 and 19.04.2020, while level and trend break dates are 11.08.2019 and 15.03.2020. As in the stock value of PGSUS company, transportation restrictions experienced at the beginning of the pandemic caused a sharp decrease in its shares. There has been a very sharp decline in the level and the average level is still at similar values.

Fig. 7 Structural breaks in THYAO
5. Conclusions

The purpose of this study is to empirically determine the impact of the COVID-19 pandemic on the movements of stock values through unit root with structural break tests. The effect of this pandemic on the global economy is obvious and there is almost no country and sector that does not get its share. The transportation sector, on the other hand, has a demand structure that is different from other sectors. In other words, there should be a demand for goods subject to trade and production so that there is a demand for transportation activities (Lun et al., 2010:17), which makes its demand structure as derived demand (Duru, 2019:49). In this respect, the transportation sector is directly affected by the fluctuations in the economy (Stopford, 2009). In order to investigate this effect in Turkey, we analyzed stock prices of the companies that are listed in BIST Transportation Index. Although these companies are in the same group, their fields of activity are partially different. We used one break ADF test developed by Zivot & Andrews (1992), and two breaks ADF test developed by Narayan & Popp (2010). In this way, the observable effect of the virus was empirically confirmed.

The included stocks that are listed in BIST Transportation Index are BEYAZ, CLEBI, DOCO, GSDDE, PGSUS, RYSAS and THYAO. The stocks of PGSUS and THYAO companies, which are operated in airline transport industry, have experienced sharp declines due to the impact of the pandemic period. Passenger travel restrictions have been largely responsible for this. In addition, stock price of CLEBI, the airline service provider related to the operations, has also had their share of the negative impact that airline industry is exposed to. However, after a certain period of time, with the removal of the restrictions, the sector again experienced positive structural breaks and recovered. But, they are still lower than their former highs. DOCO company, on the other hand, has fallen to very low levels by experiencing a negative break like other airline companies, as it is a company that provides food supply to airlines to a large extent. There were breaks in both trend and level. In addition, reservations and restrictions on food distribution during the pandemic period were also effective in its break in the negative direction. Afterwards, although there were breaks in the level and trend on a positive direction, a price performance was observed far from the previous high levels.

As a logistics company, RYSAS has an incredible upward trend when the pandemic was first seen. Later, its structure broke again due to the economic slowdown and entered a downward trend up to a certain point, and then continued its course at an average level by breaking again. Recently, it has entered a trend approaching its former high levels again. GSDDE shipping company is another logistics company included in our
research. Although this company did not feel the effect in the early days of the pandemic period, it experienced a negative break in the following period. The reason for this delayed effect may be contractual relationships, because cargoes transported by sea are generally large amounts of raw materials and are unlikely to be exchanged instantly. Therefore, the delayed negative effect later lost its effect with positive trend breaks. The company's stock value has risen to levels many times higher than before the pandemic.

BEYAZ is a car rental and fleet management company. A small increase was observed in the early stages of the pandemic. This may be related to the fact that public transportation is not preferred because the risk of pandemic has started. People started to rent a car instead of public transport. Later, after moving at low prices by experiencing a break in the level, it again experienced a big break and tested the incredibly high levels. But this is probably not due to the pandemic, but to the rising second-hand car market due to the shortage of new cars in the market.

In our analysis, we were able to empirically demonstrate the overall impact of COVID 19 on stock values of transportation sector. These results highlight the possible effects of the pandemic for company owners, policy makers and stock market investors. It may be suggested for company owners to develop policies to protect the company value against possible similar events. Because one of the factors that greatly affect the value of the company is the stock values. On the other hand, it may be suggested for the investors of these stocks to take a cautious position in the upcoming processes in order not to lose their earnings. For policy makers, since these sectors also form employment areas for many people, it may be suggested to implement policies that will minimize the degree of exposure of these companies. Because stock exchanges carry information about the developments in the economies of the countries and they are the leading indicators of future economic growth in the countries.

In future studies, analyzes made over Turkish companies can also be applied internationally. Thus, the effects of the virus can be confirmed empirically and meaningful contributions to the literature can be made. In addition, by applying similar analyzes to other sector groups, it can be examined whether there is a differentiation among sector groups in terms of being affected by the pandemic.

References


Introduction

The concept of nepotism is a concreting presence in business life, yet a concept of which the determination of its visibility is quite difficult when wished to examine scientifically. Our main aim in this study is to examine the tendency and presence of nepotism with specific reference to family businesses. Our main assumption in the study is that there is a nepotism tendency in the Turkish society in which family relations and traditions are important. In the study, in-depth interview method has been used as one of the qualitative research methods. This procedure was carried out - due to the pandemic conditions - by the questions being sent to the managers of companies operating in 4 different sectors in the province of Kayseri via Kayseri Commerce Exchange and evaluation of the responses. The results of the study generally revealed the presence of nepotism in family businesses; and showed its presence at varying degrees in the private sector in salary policies, personnel recruitment, performance assessment process and work conditions. With this study, an idea will be obtained about the probable magnitude of institutionalization and nepotism in Turkish family businesses with specific reference to the province of Kayseri and ways of integrating nepotism to the institutionalized process and institutionalization will be discussed.

1. Conceptual Framework: General Overview of the Concept of Nepotism

"The owner is my close acquaintance."

Although expressions that are commonly used in the society such as "if you know someone you will get the job", "the owner is my close acquaintance", "he is my man", "he is my uncle", "he is my town mate ", "he is my kirve, "he is my relative", "he is my country mate", "he is my fellow" etc. in seeking advantage over others and corresponding value judgments may differ occasionally through certain cultural codifications, at their core they all relate to nepotism in the same sense; redounding legitimacy to the act of nepotism (Aytaç, 2010: 86).

The literal meaning of nepotism is belonging to a certain group and members of the group being favoured rather than the favorite personnel carrying out the best work. The word in its wider meaning refers to the
carrying out of favors for the favorite side, honoring them; and it is for the one who favors to be rewarded as well (Nadler and Schulman, 2006). In another definition, favoritism is the procurement of special privileges to relatives, friends and other acquaintances in recruitment, promotion, rewards and involvement in decisions (Keleş et al., 2011: 10); the use of personal connections by relatives, friends, neighbors or other acquaintances in certain preferences to receive special treatment (Yazıcı and Seçer, 2018: 120).

In this act which is a type of privity; politicians, relatives, friends, townsmen, those who share the same school, same vicinity / neighbourhood, those who are in apartment or neighbour relationships establish reciprocal exchange relationship with one another. People favouring / privileging one another, having their relations use amenities and opportunities, issuing positions and posts in the favour of people acquainted with, providing convenience to them, protecting their interests, discrimination and procuring favour against the interests of other people etc. shows how wide the scope of favouritism is (İlhan and Aytaç, 2010: 63).

While studies concerning the concept have only started to emerge, it is of utmost importance that in order to prevent nepotism or fight the concept with the correct methods, to examine its types, causes and possible effects in the light of domestic and foreign literature data. At this juncture, in the next section of the study, the types of nepotism will be addressed and the boundaries of the concept will be attempted to be clarified.

1.1. Types of the Nepotism

We can state that nepotism emerges in two ways. The first of these is the factors such as acquaintance, relative, friend, townsman, political affiliation, alumni, colleague etc. playing the primary role in entry to public services instead of qualifications. The other one is the criteria such as votes, partisanship or ideological affinity being taken into consideration in the delegation of public services instead of requirement and adequacy criteria (Eryılmaz, 2002: 241). In practice, it confronts us as relative favouritism (nepotism), acquaintance favouritism (cronyism), sexual favouritism and political favouritism (partisanship). The favouritism arising from family relations is called nepotism, that arising from townsman or fellowship is called cronyism, that in which managers endow privilege to their male and female employees due to certain reasons is called sexual favouritism and lastly, the negative perception arising out of favouring one another due to political relations and use of power unjustly is called political favouritism (Uncu et al., 2017: 525). In this section of the study, the types of the concept of favouritism will be addressed.
1.1.1. Sexual Favouritism

The sexual favouritism that arises from females or males being unequally treated due to certain reasons (Alptekin, 2014: 204) is encountered from two different aspects in practice. The first is developing romantic feelings for the female or male employee; the second is being hostile to the employee due to gender and the other gender being privileged. The first case is related to the manager developing emotional feelings for the employee. Sexual favouritism refers to the manager having emotional feelings for the personnel due to various reasons and treating these people differently to other employees, endowing certain privileges to them. The second case refers to the female or male being treated differently due to their gender. This situation leads to various problems for employees. In business life, environments in which women are held to the background by various reasons such as being a mother and being married whereas men are one step ahead are frequently encountered. This situation and conditions entailing inequality negatively affect efficiency, quality and productivity at work. The presence of these two factors shows that qualification, competence and efficiency stay in the background (Wennerås and Wold, 1997: 2).

1.1.2. Political Favouritism

With political favouritism in which political parties following seizing power carry out privileged procedures in various ways for the voter groups supporting them and endowing them with unjust benefits (Özsemerci, 2003: 21; Aktan, 2001: 68), the practice in public service based on qualification in staff recruitment relinquishes its place to the favouritism system in which political relations are in domination (Uz, 2011: 73).

When the relevant literature is reviewed, it is seen that political favouritism is addressed under 3 sub-headings as patronage, clientelism and pork-barrelling.

**Patronage**, is etymologically derived from the French word patronage and transferred into Turkish. It involves political parties terminating the jobs of only the high level bureaucrats after seizing power and making appointments to these posts by prioritizing factors such as political ideology, townsmanship and nepotism (Yıldırım, 2013; Karakaş ve Çak, 2007; Akalan, 2006; Özsemerci, 2003:22; Aktan, 2001: 68; Polat ve Kazak, 2014: 75).

**Clientelism**, dates back to the word 'client' and in Latin 'clientem' (cipients) to the root of 'follower, butler'. It refers to the politicians thinking short-term instead of long-term and seeing the voter who is supporting them as customer and establishing relationships on the basis of customer-salesperson (Shore, 2005: 131). It can be considered as the elect providing
service to the person or the voting mass in exchange for the vote received by the customer, namely the voter.

**Service favouritism** emerges in case political powers allocating their budget regulations and expenditure to the voting areas in order to maximize their votes so that they can remain in power in the next elections. In fact, the political party that won the election process tends to allocate more subsidies to the residential areas that they received the most votes from (Aktan, 2001: 69). Güran (2004: 288) expressed this situation as "politicians come with their staff and go with their staff".

1.1.3. Cronyism (Acquaintance Favouritism)

Cronyism is the type of favouritism in which public officials and certain private sector personnel are recruited without regard to qualifications in recruitment procedures, ignoring the principle of equality and taking criteria such as being an acquaintances and townsmanship into account (Aktan, 2001: 77). From the 1973 onwards, an official being designated on the basis of political preferences, particularly in the administration of public institutions, has led the way for political parties to participate in bureaucracy and affiliation to the political preference has become a yardstick (Ülker, 1995: 192). In other words, cronyism reflects the structure in which close friends are being included in the ponzi scheme and in which recruitments and tenders are delegated to the close acquaintances with a me and my boy mentality (Savaş, 1997: 13). As different from nepotism, you-me concepts refer to the connections where there are no relative relationships. The prevalently observed "townsmanship favouritism" can be evaluated as a special type of cronyism (Karakaş and Çiçek, 2009:52).

2. Methodology: Nepotism in Family Businesses: A Study on Family Businesses Operating in the Province of Kayseri

2.1. The Subject and Aim of the Study

In this section of the study, the aim is to describe the nepotism practices carried out in family businesses operating in the province of Kayseri and examine the policy and procedures applied to the family members and other employees working in family businesses within the framework of nepotism. Our basic assumption in the study is that there is a nepotism tendency in the Turkish society where family relations are of utmost importance.

2.2. Population and Sample of the Study

The population of the study is comprised by family businesses operating in Kayseri. The sample of the study is comprised of the managers of the family businesses included in the database of Kayseri Commercial
Exchange, managed by the 1st and 2nd generations, and operating in the production, commerce and service sectors.

2.3. Research Method

In our study, moving from the hypothesis that there is more intensive favouritism in family businesses, the interview method has been selected as one of the qualitative research methods in order to understand the companies' perspectives on the issue. There is no necessity for the results obtained out of qualitative studies to be generalized to the whole study population. Instead, the aim is to take a snapshot of the situation with low numbers of participants (Dawson, 2015: 41). In that vein, our study is a qualitative one oriented towards describing the status quo.

It has not been possible for the interview to be conducted face-to-face due to the pandemic and sent to the family businesses in the Kayseri Commerce Exchange's database online. The interview texts have been sent to 21 family businesses, feedback has been received from 9 of them, however, only 4 interview forms have been taken into examination as suitable for qualitative analysis. Some of the family businesses who were instructed on the aim and content of the study have avoided giving information about their companies and refused to do the interview. Some of them were disturbed by the content of the interview questions and did not wish to participate in such a study.

The interview questions of our study have been adapted from the interview questions used in the thesis entitled "A Study on the Identification of Nepotism Practice in Family Businesses operating in and around Adana", written by Salih Cem İyişleroğlu in 2006 under the supervision of Assoc. Prof. Azmi Yalçın. The questions were configured, (issues were scaled) and regulated in compliance with the interview technique.

2.4. Research Questions

Research Question 1: Is nepotism practiced in general in family businesses?

Research Question 2: Is nepotism practiced in the performance assessment procedure in family businesses?

Research Question 3: Is nepotism practiced in the personnel recruitment procedure in family businesses?

Research Question 4: Is nepotism practiced in the determination of salary policies in family businesses?

Research Question 5: What are the fundamental issues occurring between the family members and other employees working at the enterprise within the context of social relations?
2.5. Findings

Table 1: Demographic Characteristics of the Participants

<table>
<thead>
<tr>
<th>Company Names</th>
<th>Position at the Company</th>
<th>Age</th>
<th>Gender</th>
<th>Time with the Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Chairman of the Board</td>
<td>63</td>
<td>Male</td>
<td>35</td>
</tr>
<tr>
<td>B</td>
<td>Human resource manager</td>
<td>45</td>
<td>Male</td>
<td>15</td>
</tr>
<tr>
<td>C</td>
<td>R&amp;D</td>
<td>47</td>
<td>Male</td>
<td>15</td>
</tr>
<tr>
<td>D</td>
<td>Member of the Board</td>
<td>50</td>
<td>Male</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Names</th>
<th>Have You Worked Anywhere Before the Company?</th>
<th>Educational Level</th>
<th>Activity Area of the Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>No</td>
<td>High School</td>
<td>Food</td>
</tr>
<tr>
<td>B</td>
<td>Yes</td>
<td>Undergraduate</td>
<td>Food</td>
</tr>
<tr>
<td>C</td>
<td>Yes</td>
<td>Undergraduate</td>
<td>Clothing</td>
</tr>
<tr>
<td>D</td>
<td>No</td>
<td>High School</td>
<td>Textile</td>
</tr>
</tbody>
</table>

In this section, the interview data acquired from the companies will be attempted to be explained with comparative table.

Company A was established by two siblings in 1924 and has become one of the largest food brands of Turkey. With the investments made, it has contributed to the development of food industry. The male manager interviewed is 63 years old and a high school graduate. He has been the chairman of the board of the company as a 3rd generation manager for 35 years.
Company B was established in 1928. It specializes in food. The company is being managed by 3rd generation. The male manager interviewed is 45 years old and university graduate. He has been working as the Human Resources Manager in the same company for 15 years.

Company C was established in 1924 and is an enterprise operating in the garment industry which has a very important dealer and distribution network in Turkey. The company is being managed by 3rd generation. The person interviewed is 47 years old, male and works at the R&D department of the company.

Company D was established in 1928 and operates in home textile. In the enterprise managed by 5th generation, the person interviewed is 50 years old, male and member of the board. As is seen in Table 1., the companies interviewed are from different sectors and areas of activity. This situation has importance with regard to predicting possible nepotism cases occurring in different sectors and to have an idea about the general picture. The ages average of the participants indicate middle generation. This situation shows that they adopt a managerial profile comprised of the new generation or young people in the company management.

Those interviewed in the A and D enterprises have been working at the managerial level in the family business. That the people interviewed occupy key posts such as managerial level in the family business and that people who are non-family are not employed at these levels is an important indication of nepotism. Furthermore, since the managers of the 2 companies in question are family members, they own stocks in the company. This situation shows that the professional management is weak in the companies and that family members are both owners and managers and that there is no division of powers.

On the other hand, the situation seems to be different in the company B and C. In fact, the participant interviewed from the B enterprise has stated that he has been working as the Human Resources Authority for 15 years; while the B enterprise participant has stated that he has been working as the R&D authority for 15 years; and that they have not yet acquired a post at the managerial level of the enterprise although they are family members. The most fundamental result to be derived out of this is that the two firms have made a serious amount of progress with regard to "institutionalization".

We see that A and D enterprises' participants have not worked at another company before. This situation is a negative factor with regard to both the company and the manager. Their professional career has only progressed in their own family businesses. Whereas as a professional manager, for people to have gained experience in another company and to use the experienced they gained for the benefit of their own companies will
be more efficient for the company. Working in different enterprises is the first and foremost way of learning about the professional work life with all of its aspects.

The managers interviewed from the B and C companies have expressed that they gained experience in another enterprise before starting to work at the family company and then they started to work at the family company. This situation helps the employees affiliated to the family businesses have different perspectives on the management of the company. In the 4 companies that are the focal points of this study, the relation of the participants to the company owner or the founder is found to be first degree. This situation is an indication that there is a tendency for nepotism in the family companies analyzed.

Table 2: Company Information

<table>
<thead>
<tr>
<th>Company Names</th>
<th>Total Number of Employees working for the Company</th>
<th>Total Number of Family Members working at the Company</th>
<th>By Which Generation the Company Is Managed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>400</td>
<td>Around 100-150</td>
<td>3rd generation</td>
</tr>
<tr>
<td>B</td>
<td>300</td>
<td>Around 20-50</td>
<td>2nd generation</td>
</tr>
<tr>
<td>C</td>
<td>600</td>
<td>Less than 100</td>
<td>3rd generation</td>
</tr>
<tr>
<td>D</td>
<td>550</td>
<td>Between 100-150</td>
<td>2nd generation</td>
</tr>
</tbody>
</table>

Table 2 in line with the total number of employees working at the enterprise, we see that the companies A, D and C are large-scale while Company B is a medium-scale company. Also, it is seen that the companies A and C are managed by the 3rd generation whereas Company D is run by 2nd generation. Since there is centripetal management approach prevalent in these enterprises, it can be said that conservative tendencies are dominant. Due to this situation, opportunities of professionalism and new future opportunities for the companies can be missed. Nonetheless, family businesses should receive the support of professional management and professional managers should be recruited in the board. They should establish a good management team that will open new possibilities for the enterprise. When we review the number of family members working at the companies, we see that the ranking from high to low is the companies A, D, B and C respectively.
### Table 3: The Fundamental Characteristics of the Board

<table>
<thead>
<tr>
<th>Company Names</th>
<th>Ratio of the Stocks Owned in the Company</th>
<th>The Degree of Relation to the Company Owner or Founder</th>
<th>Who Comprises The Board in the Company</th>
<th>How many People Comprise the Board? - How Many Family Members are There in the Board?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>%20</td>
<td>Son of the enterprise owner</td>
<td>Family members</td>
<td>10/8</td>
</tr>
<tr>
<td>B</td>
<td>Does not own stock</td>
<td>No 1st degree relation.</td>
<td>There is balanced distribution</td>
<td>10/3</td>
</tr>
<tr>
<td>C</td>
<td>Does not own stock</td>
<td>Niece/nephew of the enterprise owner</td>
<td>There is balanced distribution</td>
<td>13/3</td>
</tr>
<tr>
<td>D</td>
<td>%15</td>
<td>Son of the enterprise owner</td>
<td>Family members are predominant</td>
<td>10/7</td>
</tr>
</tbody>
</table>

When the data in Table 3 is interpreted, as seen in the first row, the participants of the A and D companies (as of their posts in the enterprise) have expressed that they own a certain amount of stocks in the company. Conversely, the participants of the B and C enterprises have expressed that they are in the board but do not own stocks. As of these results, we can state that the family members in the companies of A and D are both owners and managers and that there is no division of power in the companies due to this.

When we review the data showing the number of board members and the number of family members in the board, it is seen that 8 of the board members out of 10 board members are family members of the A brand; and 7 of the board members out of 10 board members are family members in the D Company. Therefore, it is seen that the executive boards of the companies in question are heavily comprised of family members. This situation shows that in a decision to be made for the company's future, familial balances are favoured rather than business principles and rules.

On the other hand, it is seen that whereas 3 out of 10 board members of the B brand are family members, only 3 out of 13 board members of the D company are family members. Therefore, it can be stated that boards in these companies follow a more balanced distribution in comparison to the general.

Nepotism and favouritism is a universal state of affairs. Behaviour in the favour of family, relatives and friends and policies being affected by

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them occur in a very pronounced manner in enterprises where capability and qualification criteria are not entirely established. However, it is known that the majority of the family businesses are out of touch with professional management approach and institutionalization. This situation creates problems with regard to managerial and strategic decisions, risks their continuity and weakens their competitive power (Yıldız et al., 2012:124). As a result, the Research Question 1 developed in line with the data of Table 2 and Table 3: Is nepotism practiced in family businesses? The question has been answered and it has been concluded that nepotism is present even in the enterprises "aiming for the ideal" in business practices.
Table 4: Performance Assessment Criteria of the Company

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*Unit change is made.</td>
<td>*Unit change is made.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>*Trained.</td>
<td>*Warned.</td>
<td>Human Resources</td>
<td>Recruited if there is no one better</td>
</tr>
<tr>
<td></td>
<td>*Unit change is made.</td>
<td>*Unit change is made.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>*Trained.</td>
<td>*Trained.</td>
<td>Human Resources</td>
<td>Sometimes Favoured</td>
</tr>
<tr>
<td></td>
<td>*Unit change is made.</td>
<td>*Unit change is made.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Unit change is made.</td>
<td>*Unit change is made.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Fired.</td>
<td>*Fired.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 4, an evaluation is made on the determination of the procedure followed for employees who failed at performance assessment. Company B stated that warning is issued or a unit change is made in the situation in question. B and C companies have stated that the priority for those employees who failed at the performance assessment is to be trained and only if that does not work do they go to unit change or warning is issued. D company, as different from other companies, have expressed that they can go to removal from position in addition to the regulations above.
In Table 4, an evaluation is made on the determination of the procedure followed for employees who failed at performance assessment. Company B stated that a warning is issued or a unit change is made in the situation in question. B and C companies have stated that the priority for those employees who failed at the performance assessment is to be trained and only if that does not work do they go to unit change or warning is issued. D company, as different from other companies, have expressed that they can go to removal from position in addition to the regulations above. When asked about the criteria determined for the specification of the procedure followed for family member employees who failed at the performance assessment, the previous responses have been iterated by the participants.

As a result of our question how participating companies meet their personnel needs, it is seen that the A company responded with personal relations and human resources and responded yes to the question whether they endow privileges to the family members. Similarly, although D company expressed that they meet their personnel needs from human resources, they contradicted themselves by also stating that they prioritize family members in recruitment. On the other hand, B company and C company have expressed that they meet their personnel needs through human resources; and B company stated that they prioritize family members in the personnel recruitment. All the results indicate that the companies maintain an attitude close to arbitrary in personnel recruitment. This situation calls for the qualification problem and therefore our main theme nepotism as if from afar. Naturally, the degree of density in this procedure bring enterprises to or move them away from institutionalization. In fact, qualified and professional candidates can be found in all areas; there are always more qualified candidates. The only advantage of the family member is being loyal and trustworthy to the enterprise owner for the most part. However, loyalty and trust will bring ideal results when it is combined with experience and knowledge.

In this part of the interview, questions kept being asked oriented towards learning the business policy. The first of these questions is the probable favoritism shown to the family members in the personnel recruitment. As is seen in the Table, the prioritization of the family members in company A virtually exhibits itself with leverage characteristics. The company is the only one that has explicitly stated they prioritize family members. Company B used the expression "If there is nobody better we recruit them"; companies C and D expressed that they "occasionally endowed privileges". This question is the "control question" of the study and is a validation of the question whether they endowed privileges to family members in the previous tables. The responses have not shown contradiction with the other responses of the companies.
Nepotism as a situation frequently encountered in our country, refers to the recruitment of relatives among the family to key positions, particularly in companies. For instance, due to mistakes made by family members made to work without having specialty level knowledge in departments that have critical importance such as accounting or finances, tens of companies become bankrupt every year. In the company, for any open position, individuals who are unemployed in the family are taken into evaluation rather than professional employees. In case family members are in important positions in the company and do not know how to do the job; a very high cost emerges until they learn. So much so that in the time until the job is learned perfectly, the company may even cease to exist.

As a result, Research Question 2 developed in line with the Table 4, data within the scope of the study is: Is nepotism practiced in performance assessment procedures in family businesses? The question has been answered and it is concluded that in the general policy of the enterprises, there is a -predominant- tendency to recruit family members. Again, when the table is examined Research Question 3: Is nepotism practiced in personnel recruitment procedures in family businesses? The question has been answered and it is concluded that however much the enterprises expressed that they meet their personnel needs through human resources, family members are prioritized from time to time.
### Table 5: Salary Policies of Companies

<table>
<thead>
<tr>
<th>Company Names</th>
<th>Which Criteria are Used in the Salary Policy of the Company?</th>
<th>Who Determines the Salary Policy of the Company?</th>
<th>What is the Salary Regulation Applied by the Company to Employees Who Are Family Members?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Experience, Effort, Responsibility</td>
<td>Decisions of the management. Other companies' practices</td>
<td>Decisions of the management.</td>
</tr>
<tr>
<td>B</td>
<td>Experience, Responsibility, Effort</td>
<td>Decisions of the management. Human resources</td>
<td>Decisions of the management. Human resources</td>
</tr>
<tr>
<td>C</td>
<td>Education, Discipline, Physical and mental effort, Responsibility</td>
<td>Direction by the human resources, Decisions of the management,</td>
<td>Decisions of the Management Human resources</td>
</tr>
<tr>
<td>D</td>
<td>Experience, Effort, Devotion</td>
<td>Decisions of the Management Company Practices Human resources</td>
<td>Decisions of the management. Human resources</td>
</tr>
</tbody>
</table>

Within the scope of our study, in Table 5, criteria involved in the salary policies of enterprises have been given. Companies A and B expressed that experience, effort and responsibility are the most important criteria; company C education, surveillance, physical and mental effort; and lastly, company D selflessness in addition to experience and effort.

In response to the question where we asked who determines the salary policy of the enterprise, company A has stated that management and other companies' practices have played a leading role. Company B as differently from company A expressed that they consult human resources' opinions in addition to the board decisions. Similarly C and D companies stated that management's decisions and human resources have a determining quality.

The last question of this section is what is the practice oriented towards family member employees in the salary policy of the enterprise. For this
question, all the companies iterated their previous answers. At this juncture, the founders of the family businesses or those who own the stocks, and even certain active managers, do recruit family members and relatives without regard for their abilities or contributions and ignore their weak aspects. As a matter of fact, as those who worked at the family business that are not family members, capable and educated individuals specialized in various areas prepare themselves for these positions and think they deserve this job, the fact that family members are recruited instead of them negatively affects the social relationships of these people as well as job satisfaction, motivation and individual performances. Similarly, that the social rights provided to employees who are family members are different from other employees or discrimination results in other employees’ developing stress.

Research Question 4 developed in line with the Table 5 data is: “Is nepotism practiced in salary policy in family businesses? The question has been answered and it is concluded that although they prefer family members in recruitment, they strive to maintain an equal approach to salaries and they do not privilege the family members in that case.

Table 6: Possible Differences between the Family Members and Other Employees in the Company

<table>
<thead>
<tr>
<th>Company Names</th>
<th>Are There Cases In Which the Family Members Working at the Company differ?</th>
<th>Under Which Conditions Are the Family Members Favoured?</th>
<th>What Are the Feedbacks of Other Employees related to Possible Privileges</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Yes</td>
<td>Delegation Enterprise opportunities</td>
<td>We receive negative feedback</td>
</tr>
<tr>
<td>B</td>
<td>Sometimes</td>
<td>Sometimes delegation</td>
<td>Sometimes we receive negative feedback</td>
</tr>
<tr>
<td>C</td>
<td>No</td>
<td>There is no difference</td>
<td>There is no negative feedback received</td>
</tr>
<tr>
<td>D</td>
<td>Yes</td>
<td>Enterprise opportunities</td>
<td>We receive negative feedback.</td>
</tr>
</tbody>
</table>

Table 6 involves the answers regarding the presence of favouritism situations in the enterprise and how these situations are received by the other employees. Company A has stated that there are situations in which family members are differently treated in the enterprise occasionally. They have expressed what these entail as delegation and institutional opportunities. It is understood that the other employees are negatively affected by this situation by the statement “we sometimes receive negative feedback” of the participants. B Company has indirectly expressed with the
response "sometimes" that there are nepotistic policies followed. It is seen that this favouritism occurs in delegation. The enterprise has stated that the employees occasionally provide negative feedback to the existing conditions. C brand on the other hand has stated that family members are not held differently from other employees; therefore they do not have any privileges at any point. Therefore, there is not negative feedback from the other employees regarding the brand.

There can be good and bad outcomes of nepotism from the aspect of employees. It is possible to say that those who are family members are not disturbed by nepotism but appreciate it. However, employees who are not family members generally are not pleased with this situation and disturbances extending to quitting the job can be at stake. Firstly, those superiors are comprised of people without capability and qualification is a situation that makes inferiors feel restless and insecure. It leads to trust erosion against the business management and conception of justice of the employees. General compliance and happiness decreases and an atmosphere is established in which products and services will be negatively affected (Büte and Tekarslan, 2010:4; Pelit et al., 2017: 49)

As we tried to express in the theoretical section, this study has been prepared around the main axis of the concept of nepotism with a roadmap that involves social relation theory at the same time. At this juncture, the participants were asked whether there were any differences to the practices between family members and other employees, or which are there difference. Following that, the reflection of the possible favouritist policies occurring in the enterprises on the employees and the questions developed within this scope in Research question 5: Are there problems occurring between the family members and other employees within the context of social relations? have been attempted to be resolved. Within this context, in line with the answers we received from the participants, it is concluded that there is negative feedback oriented towards family members.

**Conclusion**

"Nepotism" which refers to family members being recruited, provided with promotion opportunities and favoured in salary policies or human resources practices confronts us as one of the most important issues of family businesses. This situation creates problems with regard to managerial and strategic decisions and risks their sustenance as well as weakening their competitive power.

We can list the primary negativities to emerge along with the table involving nepotism in family businesses as follows:

- It can lead to trust issues between stakeholders.
Hindering the recruitment of capable managers can deprive the business of intellectual capital.

It can lead to important job losses by causing qualified laborers to leave the job.

It can form an insecure working environment in the workplace.

The trust and belief of employees on the company founders or managers can decrease.

It can reduce the efficiency of the organization.

Double-poled employee profiles can emerge as staff close to and far from the management.

Organizational conflicts and insecurity increases.

Coordinated work and information exchange might not be the case.

Motivation loss, low performance, non-attendance to the job and quitting may emerge with the employees (Özçelik and Yılmaz, 2019: 98; Yıldız et al., 2012: 122).

Favoritism as a social interaction mechanism is a trend that is not only prevalent in Turkey but in other countries as well in the political and societal world. Therefore, we need to mention that the number of studies regarding favoritism in both domestic and foreign literature is low and insufficient as well as underscoring that enterprises have utmost need for studies to be conducted in this area.

References


http://www.scu.edu/ethics/practicing/focusareas/ governmentethics/


TOWARDS HUMAN RIGHTS: NATURAL LAW TRADITION 
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1. Introduction

‘Human rights’, one of the important concepts of modern social life, emerges as a basic principle, an objective measure on which international communities and platforms depend their foundational aims for the purpose of protecting and defending it, besides its being a concept over which strong debates have still been made. However, this concept faces us as a rightfulness ground in the evaluation of today’s law systems, as a starting and reference point in their attempt to organize regarding life, and as a nearly universal measure applied in evaluating the rightfulness of national, regime or social acts. Understanding at which level a concept having such a validity emerges necessitates understanding a period which caused human rights concept to emerge in the development of western thinking and in which the attempts to give a reference legitimate to law were revealed, namely the development process of natural law. Only in this way can it be revealed that this thinking is a product of natural law thinking and there are essential bonds between them.

Natural law thinking has basic reference point value from which the concepts were removed such as agreement -legalizing the participation in political power- human value, human rights, and individualism that has become our main values today and therefore composes the back ground of our understanding of liberal democracy. Thus, the tradition of natural law thinking is still of importance for the present both specific to human rights and in terms of other basic values carried by our understanding of democracy.

For this reason, our study aims to generally examine this period, which has allowed the concept of human rights to emerge in the development of western thinking and in which the attempts to give valid bases to law has been displayed, with important conceptual transformations till the point where inalienable human rights thinking are founded, together with the thought that it will enlighten the debates of contemporary natural law and politics (philosophy). Then, in the name of better comprehending the importance and place of ‘human rights’ concept in terms of today’s politics philosophy or political thinking, it is necessary to deal with the tradition of ‘natural law’ in terms of important transformations that it had in itself and within the frame of its characteristic to form a bond between tradition and contemporary thinking so that the essential bonds of this concept with natural law thinking tradition will be revealed.
2. ‘Natural Law’ in the Relationship Between Tradition and Contemporary Thinking

The process that has enabled still supporting the understanding of ‘democracy’, an important gain of western thinking tradition even today, two thousand years later, depends surely on developmental process of the concepts of human value, human rights and individualism, which has a basis on human nature understanding displayed by natural law thinking, and on the developmental process of agreement concept which validates the participation in political force. Therefore, it is possible to say that the values carried by natural law thinking continue to be forming a link between tradition and contemporary thinking (Torun, 2012: 179-182).

Natural law thinking as a tradition in which some attempts are displayed to reveal basic characteristics of the distinction between the right and the wrong in main emerged with a tendency to a ‘nature’ thought on which an objectivity can be based, from the viewpoint of the thinking that the concept of law needed in the society cannot be bonded to a specificity showing an arbitrary regime, should be rational and should be dependent upon an objectivity that will bring itself a cause of existence. This thinking of nature as a thought determining the eventual measure of the right and the wrong makes reference to the same nature as the thinking of nature which will determine the values upon which humanitarian life will be based for natural law theoreticians. In other words, this thinking of nature to point to a universal, permanent and unchangeable structure is of a basic reference point character which will provide a foundation for evaluating political structures and will guide social life, and from which to deduce basic measures with which social order most proper to humans only if they are applied. This nature mentioned is clear to express a world of values regarding humans beyond physical world, in terms of its distinguishing characteristics. Then, this nature is nothing but ‘human nature’ as a concept that will gain legitimacy to society and law by depending on itself. In this context, natural law tradition is a tradition in which the comprehensions regarding human nature and natural or ideal measures displayed depending on this comprehension are exhibited. Although this tradition makes reference to a nature common in all people, natural law theoreticians are seen to have given different meanings to the concept of nature throughout history. Although the concept of nature has mostly pointed out a rational order or purity, it has sometimes been used to express a sacred clarity that God created. Yet, in any kind of usage it shouldn’t be disregarded that the concept of nature points out what is over-history, what is not human product and what is the background of any kind of human creation.

As can be seen, the ‘natural law’ thinking is naturally a thinking of what is moral and political in its relationship with what is humane. The point to pay attention at this point is that natural law thinking is in a relationship with moral ground due to this bond it has with what is humane. It should be expressed
that natural law theories are not regarded as ethical theories; they are the products of politics philosophy. Nevertheless, it is possible to read whole natural law history as a history during which the discrimination between law and morals has been tried to be founded. However, on coming to modern age, it is seen that this moral and political resemblance in natural law thinking has been gradually decayed and natural law understanding has improved in which the difference between the two has been clearly tried to be revealed. But, although there appeared a variety among natural law theories in terms of the measures they revealed and in terms of their manners to use these measures, it should be underlined that natural law thinking aims to reveal a societal and justice understanding which will enable an individual to comply with a law not commanded to them but a law having ‘moral’ responsibility towards them for expressing themselves in every period and which will guide an individual to access the most proper way of life within the frame of this law.

Therefore, natural law thinking is of great importance in that it reveals the existence of the difference between the legal and legitimate, it shows that humans are not weak before the law, on the contrary law exists for humans and of course it says that positive justice should be evaluated depending on a measure (Strauss, 1953: 1-9). Nevertheless, as mentioned by d’Entreves, it is true that western thinking has learnt much from natural law theories such as determining the limits and nature of political responsibility, analyzing the contradicting ways of management, showing the fields of law and politics and to what extent this field is related to morals (d’Entreves, 1965: 7-17). The history of natural law with its such aspects, as the back ground of our democracy understanding dating today, left us a legacy as ‘natural law’ thinking, which is accepted universally, which expresses that the basic human right is the right to live, the basic quality of human is being free and equal by nature and humans have the rights not to be taken from them in any condition.

It should be mentioned that we come across the natural law thinking for the first time in Ancient Greece thinking. Here, it is observed that the process, which started with problematizing the relationship between agreement and nature in the mediation of philosophy, resulted in starting to research human nature to reach the reality that law should carry. The thoughts and debates revealed during natural law tradition that has a two-thousand year past, in other words, this traditional natural law doctrine becomes a resource to modern natural law thinking being equipped with a new conceptual frame in modern period, so that contemporary thinking is founded here. In this case, it is necessary to search for the essence of our understanding of democracy we have obtained today and the value that our perception of human rights, first in this natural law thinking dating to ancient Greece.
3. Natural Law Thinking as the Basis of Western Thinking History

Natural law thinking started first in Ancient Greece thinking with problematizing the relationship between agreement and nature. Depending on this, philosophy is seen to be directed to the understanding of ‘human nature’ with a view to search for reality that the law should carry. It is not possible to come across a conceptual ‘natural law’ concept as until Stoical philosophers of Hellenistic period in Ancient Greece. The understanding ‘human nature’, as the most important basis for natural law thinking, first emerges within the ‘nature’ understanding of nature philosophers.

The concept ‘nature’ as one of the first subjects of philosophy, emerges as knowledge defining ‘nomos’, in other words, law as the opposite of tradition and guiding the production of man-made things. Therefore, the concept of ‘nature’- as a thing emerging as the result of arts in guidance of nature- appear as a thing which is the foundation of things which are not natural but man-made. The most important point disclosed by such a definition shows itself in the differentiation put between ‘nature’ and ‘agreement’. As stated by Strauss, this differentiation already exists in the concept of ‘nature’ itself (Strauss and Cropsey, 1972: 2-4).

Within this point of view, philosophers of ‘nature’ use the concept of ‘nature’, which they determined as the subject of science, in the meaning of an order having an order and function in itself. Philosophers of nature, upon applying their search for essence in universe to any kind of existence realm, saw a resemblance of the continually-changing appearance of this physical existences even in traditions and agreements, and tended to look for a stable principle, a measure or a ‘nature’ to explain them in an order. This perception of nature to express a measure was expressed under the name of ‘laws of nature’ to present themselves as the laws both cosmos and the society. Because of the parallelism between macro-cosmos and micro-cosmos that emerges within the perspective of this understanding, nature and society were linked to the same rules and laws. Thus, the search for the essence of nature meant searching for the essence of the society. This understanding pointing at this parallelism between the order of cosmos and society and individual resulted in dealing with all existence realms as a whole. Hence, the history scene had to wait for the sophists and afterwards to reveal the political results of cosmos’ scattering for a concept of ‘nature’, in which the law will take the guiding principle part of ‘nomos’, until the disintegration of nature-morals and politics identity in which the society melted within a nature metaphysics and humans having gained a presence as being a part of this society have found a body.

Thanks to the attention reflected from nature onto humane life, humans are dealt with as the subject who wishes and acts rather than being the subject of knowledge. This change in the tendency, having resulted from the starting of
discussing the validity of knowledge revealed by philosophers of nature regarding the nature of universe and from the contacts of Greece culture with other cultures and civilizations, resulted in a thought that there couldn’t be an absolute knowledge with sophists. Therefore, epistemological relativism has been theoretically founded, expressing the motto ‘humans are the extent of everything’ (Torun, 2012: 183). The sophists, who try to understand humans in practice, namely, in life, directed all their knowledge to micro-cosmos. As the result of joined cultural interaction, sophists tended to the searches whether societal actions and individual behaviors have objective measures valid in everywhere or not and they tended to search for the responses to the questions whether there is an absolute measure on which justice depends with reference to different perceptions of justice or any kind of law results from agreement (Strauss and Cropsey, 1972: 5). Thus, with the problematization of the definition and nature of the concept of justice, sophists disclosed that law has an artificial and conventional character, having one different from nature. Theorizing the order of society being different from the order of nature, sophists having disintegrated the unity of cosmos tended to the question what made this agreement possible, namely, how societal life is possible, due to the fact that they found the core of the law in agreement.

While trying to answer the question on what societal life depends, sophists assigned one more different meaning to the concept of ‘nature’. According to them, there is human nature besides physical nature. This human nature confronting us as the total of humane and absolute motives does not vary from one society to another. This new perception of nature dealt with as the basis of societal life emerges as a basic instinct. This basic instinct disrupts itself at its most terminal point and reveal it as a wish to protect its own interest. From this point of view, according to sophists, there isn’t a justice resulting from any treaty between people, in other words, there isn’t a justice which is true and fain in itself. Thus, the concept of ‘agreement’ placed into the base of the concept of justice thanks to sophists. The presumptions which sophists tried to legalization do not create a problem in placing agreement into the basis of justice as long as there is agreement, while the contradictory situations of these presumptions are seen to make this an important problem. The contradiction of opposing interests, namely, the situation of non-agreement of presumptions caused the value knowledge of presumptions to be questioned. Socrates to come to the history scene with this questioning defended to reveal not the benefit to the basis of agreement but the universal knowledge.

Socrates, who believes that the right can only be formed by grounded, legalized knowledge whose reasons are exposed, was trying to find a sound ground on which we could place our actions by reaching a universal moral value (Copleston, 1986: 135). From this perspective, Socrates, who believed that there is a valid action measure for both humans and states, was of the opinion that moral principles of different states could be judged to the extent
that they complied with this measure and to the extent of their individual actions (Copleston, 1986: 135-136). The point to be regarded here is that although Socrates depends his investigation mostly upon an ethical problem, he applies for this to ask questions of what is legislation, law and justice - main problems of political philosophy, and what is ‘good society’. It shouldn’t be forgotten that moral and political interests were a whole in the world of Ancient Greece. In other words, a good person means a good citizen at the same time. This thought surely depended on the concept of not distinguishing between an individual and a society, between private life and public life, that is, on the identicalness of politics and morals in Ancient Greece. This thinking of identicalness is a result of Socrates’s identicalness of virtue-knowledge. According to him, because the knowledge which will enable being virtual is the knowledge to be intellectualized, morality which means accessing the highest best of a human to be arrived under its guidance will be rationality. Thus, in Socrates’ rationality, we encounter a unique ‘nature’ concept shared by all humans. Accordingly, in the perception of this nature the humans have as an unchangeable nature, moral values under the guidance of intelligence is also unchangeable. Then, this thinking of nature encountered in Socrates is identical with what makes human a human being. Considering the identicalness of virtue-knowledge by Socrates, it is not surprising that what is included in this thinking of nature confronts us as a law of nature. The only purpose of this thinking structure of Socrates, who revealed an objective understanding of good to be obtained rationally, was to show how to obtain it; however, there is no universal understanding of the good revealed by Socrates.

Here, Plato realizes this understanding of Socrates in his own philosophy by passing from hallucinations to knowledge and thus showing us what is the reality factor, in other words, what is universal knowledge to carried in law, namely, agreement. In this context, Plato, who directs his main criticisms to conventionalism, defends that real knowledge should be unchangeable knowledge. ‘Logos’, defended by Plato as an unchangeable knowledge, is also the knowledge to form the basis for society for Plato as the expression of universal and real knowledge. Plato, defending that morality, that is, the reference point for reality cannot be agreement in this point of view, discloses that the perception of the ‘good’ to be expressed by it is the perception that should be ‘good-in-itself’. Therefore, we see in his work The Republic (Politeia) that justice as the basis for the presence of a society makes a reference to something itself which is just by its nature, that is, just-in-itself as the highest virtue and highest good. Because it is the philosophers who will obtain such knowledge, knowledge should be replaced by conventional law according to Plato, who demanded that philosophers should be the Kings (Plato, 2002: 157-164). Accordingly, as societal treaties depend on conventions, it is understood that the legislation, in other words the laws, being the expression of societal treaty is not as strong as knowledge in Plato’s perception and thus it is unnecessary. Therefore, this situation in which there
will be no founded, enacted legislation, in other words, positive legislation and positive law, exactly makes a reference to a situation in which there is natural law. The ideal state of Plato, namely, the state to show the ideal way of life of humans, is also a state which displays a natural legislation representing the natural or ideal law at the same time (Torun, 2012: 195).

Plato, who is aware of the bilateral nature of humans, namely, their being an existence between gods and animals, tends to organize what is as much as possible depending on what should be, that is, the theory he composed in *The Republic* according to the practice with his book *Laws* in which he tended to practical in the perception of a realizable state. We come across a regime in which law is dominant instead of knowledge in *Laws* contrary to *The Republic*. Thus, a space starts to be given to a perception of natural law, which should be on the basis of positive law from Plato on and which is expected to guide it thanks to the mental and moral qualifications it has. However, together with Aristotle after Plato, we witness that natural law started to be an inseparable part of positive law.

Aristotle, by looking back to the traditions before him, put the nature on the basis of society, thinking that guiding principle of behavior should be something universal without considering relativism or absoluteness. This nature to form the reference of practical life depends on a perception of nature which is not transcendental to humanly life, is changeable, is nourished with agreement and enables any kind of goodness to be defined in itself. While Aristotle was searching for what guides the action in *Nicomachean Ethics*, he was in an attempt to search for a measure which is actually ‘nature’ in one aspect, and is found in practical life in another aspect, which is found innate to it, in other words, which is both objective and which can be regarded both as valid everywhere and at the same time which can be seen in the act of humans and whose knowledge can be reached in practical life (Strauss and Cropsey, 1972: 73).

Within this context, Aristotle, who put forward to the perception of democracy and justice, accepts the principle of majority of democracy depending on this basis, thinking that the administration via consent is the basis. Yet, it should be stated that for Aristotle it is not possible for the principle of majority to be a measure of justice. For the measure of justice, Aristotle, although not presenting an absolute principle considering the variety of humanly situations, was in favor of an understanding of justice to realize reality in every case as much as it is changeable (Aristotle, 1998:88-113). Aristotle’s facing the truth that behavioral codes will not have the same universality compared to human nature caused him to put the ‘judge’ to an important place in ensuring justice and realizing universality. At this point, in accordance with this relationship that Aristotle tried to form between morals and justice, it is seen that his discipline of politics emerges at the same time as a natural theory of law.
Aristotle, regarding the human as a societal being, defends that his way of obtaining happiness can be possible with political action and at this point he is observed to pass from ethics to politics (Torun, 2012: 197). But, a more careful reading shows us that this differentiation Aristotle wanted to do between morals and ethics is a differentiation made in the basis of private life and public life in main. What this situation expresses is that the morals excluded from politics in Aristotle brings us also to individual moral understanding. In this context, because complying with the law and legislation appears as the necessity of a virtuous life, a citizen’s responsibility to comply with a law can be stated to show itself as both a legal and a moral responsibility in Aristotle.

Then, when we consider that each law to guide behavior should at the same time make reference to a law made to provide good life in justice system in Aristotle, this theory of Aristotle shouldn’t be disregarded to draw a natural law character in respect that a good person should be considered identical with the good society.

It is clear that Plato and Aristotle, to whose search for absolute measure of justice we draw attention, draw an understanding of natural law depending on a certain understanding of ‘nature’. Yet, as can be seen, a ‘nature law’ or ‘natural right’ conceptualized being clearly stated in these theories are still out of question. Here, the Stoic thinkers of Hellenistic Age are very important in natural law tradition in respect that they first stated the concept of ‘natural law’, and Cicero is very important in respect that he is a typical representative of natural law tradition before modernity in terms of his demonstrating it within a comprehensive political theory (Strauss, 1953: 154). However, the understanding of ‘nature law’ appearing in their theories brought a system of laws with universal validity together with them through their forming the basis for their disciplined of legislation and politics (d’Entreves, 1965: 17). This system of laws find an expression in Corpus Luris Civilis, known as Roman Law.

After this point, thought is seen to be inclined to practicality rather than metaphysical or methodological problems and, in this direction, the interest is seen to change into individuals’ themselves and their world. In this context, the greatest aim of stoicism has been to reveal a governmental opinion to be formed by whale people and to ground on the same common nature by exceeding any kind of societal limit, depending on a universal cosmopolis understanding. It should be underlined that stoics’ main aim to act with ethical concerns rather than social problems was related to the turning to the moral dimension of private life. Natural law for them was resulting in the theory of ‘citizen of world’ as it can be regarded as the guide for virtual life. Nevertheless, for them, a human being had a trait to know this law ‘by nature’ and to practice it into their actions consciously. Given all these, it is possible to deduce that stoics tended to an ethical order rather than legislation and
therefore, from law, they understood a moral law rather than a legislative law. In other words, we can say that legislative order confronts us as amoral order at the same time because in stoic opinions the best life is defined as a virtuous and moral life and justice is one of these important virtues.

According to Cicero, who wished to base the validity of positive law on a measurement, as nature law which is the basis for legislation and as the principle it has to materialize was human’s own nature, complying with the law emerged as a moral task at the same time (Wacks, 2017: 38-39). In this context, the perception of ‘equality’ dealt with by Cicero and as a concept having come to the forefront is seen to lead us to an understanding of moral equality as a natural result of nature law. This understanding of equality encountered in Cicero should then be considered as the product of a moral comprehension rather than a political and societal comprehension. Thanks to this feature, nature law emerged as a means of interpretation rather than a whole and ready system of rules for them (d’Entreves, 1965: 30). Thus, the situations having resulted from irrational aspects of human nature and causing natural harmony to worsen were able to be revised. This ‘positive law’, which emerged in Rome in the basis of this rational understanding of nature the humans possessed, undertook a function of punishment for humans to ‘be punished’ in view of such situations.

In the following ages, Christianism is also seen to reveal an understanding of natural law with the effect of Stoic teaching. In these theories revealed with religious effects and dimensions, it is not possible to encounter wisdom sharing an identical character with universe, and to encounter an understanding of nature law disclosed depending upon human nature and presented as the basis of ethical and political teachings. In this period, there were teachings with having the appearance of salvation teachings. In this period expressing a religious search from this viewpoint, a human having an autonomous nature in ethical comprehension models like before loses its autonomy by being defined with a principle other than themselves. In this cosmopolis understanding revealed by Christianity, the thinking of spiritual unity in which love depends on the existence of God as a principle is encountered rather than the thinking of unity revealed by Stoic understanding via wisdom. Thus, as a principle underlying western democracies, the principle of ‘state’s instrumentalism’ gets into our thinking horizon for the first time with a religious expression. When the state becomes the instrument of God on the Earth in this direction, both a moral and religious responsibility has been given to humans as the result of the identification of submission to Him with God.

In this way, disappearance of human’s, society’s and state’s autonomy with the connection of any kind of existing field to God meant disappearance of the concept of legislative order. However, for mentioning a legislative system there is a need for an autonomous society and social connections in this
autonomy. Yet, it is clear that Christianity did not give any place to a connection other than divine connection. As in the existence of the state, only the divine order itself, in the search for an absolute justice measure, was carrying a character of measurement. During all Medieval Age in which the autonomy of God was accepted as the only measure, we witness that different understandings were disclosed within this basic principle. Although the reference point was still God, it is observed that such differentiations came to be made as eternal-undying law, natural law, human law, and divine law towards the end of this age. These differentiations trying to give some place to human autonomy played an important part in laying the foundation of modern natural law by Renaissance’s thinkers of natural law.

As can be seen, the concept of natural law dealt with up to now reveals itself within the frame of ‘natural law’ teaching. Together with the differentiations pointed above among laws, one new more comprehension entered into our thinking horizon in terms of natural law towards the end of Renaissance in particular: ‘Natural right’. Appearance of the concept of ‘right’ belonging only to the individual was possible only with the emergence of individualism in modern sense with a new design of nature. Because, it was impossible in a cosmology in which a human was comprehended as a being having responsibilities dependent on a law. Therefore, only with the collapse of this cosmology it became possible to define and arrange social order depending on human’s natural rights.

4. Modern Age: ‘Natural Law’ as Foundation of the Understanding of Democracy

Modern natural law thinkers and political philosophers try to understand the resources of modern democracy, the values and crises in it applying for the tradition of natural law. Within the frame of our study, we are trying to understand how and in which way the concept of ‘human rights’ has been dealt with within the frame of natural law tradition from which it emerged and together with the changes and conversions it has suffered, to what extent this concept has protected its essential bonds with tradition and we expect to be able to show that it is a thought still continuing its livelihood. In this context, we should now be inclined to comprehend the dynamism of modern law by depending on the concept of democracy with modern age.

The most important feature of natural law thoughts of modern age is that they present themselves as the background of the democracy understanding. Towards the end of Renaissance with the differentiations made among the laws, we see that the teaching revealing a state or sovereignty theory came to be exposed when society came to be thought as a founded, established institution rather than a natural institution. These teachings dealt mostly with the relationships between state and society, and explained these relationships applying to a natural law idea. In other words, it can be said that it was not
possible to encounter the concepts of right and contract in these teachings yet. Because they still regarded humans depending on natural law concept and consider humans, in their teachings, as beings existing with moral connections, they were in the situation of teachings reminding the individual their duties (Strauss, 1953: 182). So, they were of teaching character of 'responsibility' rather than defending the rights of the individual.

It is not a coincidence for these teachings in which the problem of social resource was mostly presented as the resource of the state and sovereignty to emerge in a period during which nations-states were tried to be grounded round a secular principle rather than divine principle. In these teachings concentration on how the states should be, depending on the identicalness of the state and individual, civil society thought is not also encountered as an independent structure against the state yet. Therefore, as Strauss stated, it was necessary to accept that the individual comes before civil society in every aspect (Strauss, 1953: 183). Accepting that the individual comes before the civil society in every aspect necessitated an increase in the emphasis on the individual’s will as the founder of society and made it necessary that the concept of contract, a realm in which this will expresses itself, should show itself as a descriptive principle. In other words, with the emergence of modern political philosophy as the emergence realm of the concepts of the individual’s will and social contract, a thought of ‘civil society’ came to be talked about. Because, this threshold is of course the one through which we pass to modern political philosophies. It is seen that modern tradition also accepts the value of the individual as Renaissance modern legists. Yet, it should be kept in mind that a human being is located in the center of these teachings to defend their rights at the same time in modern political philosophies and in this way it differentiates itself from previous tradition.

The most distinguishing aspects of this tradition have been the rationalism and individualism it has. ‘Natural law’ having reached its greatest importance and power in modern age derives this feature of this from its being the basic concept of the age of revolutions at the same time. As stated by Strauss, American and French Revolutions were legalized primarily with an application to natural rights of humans as being the revolutions of modern age or natural law theories were made to be preparatory to the revolutions with settlement of ‘human rights’ concept on questioning the current ground (Strauss,1953: 166). These modern law theories expression the acceptance of individual’s value presented themselves as rational and revolutionary theories with the mission to defend the rights undertaken. Of course, on the basis of this period to bring us to unassignable rights of the human, there were the new nature and science understanding having started with Galileo and which will reveal metaphysical results in Descartes and political results in Hobbes.

The moral and political theories consistent with this new nature and science understanding is regarded as the basis of today’s democracy understanding,
because thanks to these theories, it became possible for the first time to come across the concepts under discussion together with the democracy concept, namely, the human rights and administration understanding depending on the individual’s consent, the thoughts that state is an artificial means formed by individuals, what laws each individual will obey, and under what kind of administration they will live, and that the whole members of the society should join political force, meaning the refusal of societal hierarchy. This understanding in which the value of the individual is emphasized contributed to the appearance of liberal values from this viewpoint.

In the part we tried to get exposition to traditional teaching, it was seen to have a function to ground it and rationalize its current aspects. Whereas, with the modern age, the thought of modern law came to be dealt with as a means to question and assess the current structure and as a means showing under what conditions a system can be right. Thus, traditional natural law teaching together with modern natural law tried to be transmitted to modern world accompanied by new concepts.

We witness the conversion of the thought of traditional natural law with modern elements first revealed by Hobbes in a way to disclose a democracy understanding. This conversion starting with Hobbes and expressing the disconnection from tradition resulted in leaving behind the main values carried by natural law thought at the same time. Nevertheless, Hobbes refused the moral measure revealed depending on plenary rationalism in the theory he put forward and disregarded moral values and developed his theory depending only on ‘individual’. Hobbes, revealing the value-the individual carried-as the right, assigned all rights of the individual to a possessor with absolute power in order to keep humans together because humans were made to be independent of moral bonds (Wacks, 2017: 45). From this viewpoint, the individual in Hobbes reduced to the position of nationality in view of both legislation and social system. In the consequence of this, the individual submitting to the rationalism of God or universe we see in traditional teachings displaced by an understanding of the individual submitting to a secular and real power (Torun, 2012: 227-228).

It is clear that this teaching revealed by Hobbes contained results against values included in modern democracy teaching. Yet, the theories to be developed after him with the help of renovative elements in his theory are the basis of today’s democratic values of ours. For example, Locke discussed the modern elements in Hobbes’ theory again by applying the concept of ‘nature law’ and thus disclosed new thoughts by forming a new bond between tradition and modern. Let’s state that Locke presented a new teaching to provide a different disconnection from tradition with modern concepts and by inheriting a natural legislative teaching from tradition.
For Locke, who put as the basis of his own system the ‘nature law’ as an important concept having been in the history scene since stoics, this principle would express neither the rationalism of the universe nor the behavior code granted by God to the human. Locke positioned this ‘nature law’ to represent a moral principle as a principle which all smart beings could discover in their own lives, depending on the rationality of the individual. Locke, with this modern rationalism grounded on the autonomy of the individual, was able to reveal a new and modern theory. In other words, Locke reshaped, with the teaching he revealed, the moral principle of tradition as a principle grounding the equality and freedom of humans and stating their rights. Locke, who positioned individual’s rights as unassignable rights within nature law, not only presented moral law as a law stating the rights of individual but also established this law as a measure with which legislation, administration or any kind of man-made institution could be evaluated or judged. Thus, Locke both carried a common quality as the theoretician of ‘nature law’ with tradition and established a new concept to our thinking horizon as ‘human rights theoretician’.

In the consequence of this, when there was no need for the human to reach the knowledge of universe’s essence or God’s truth so as to reach the knowledge of their own nature as in traditional theories, their renunciation from societal hierarchy and individual’s autonomy became unacceptable, depending on knowledge or on the persons or institutions thought to have God’s knowledge. Centralizing the individual and a moral principle that could be known by everyone in Locke put forward the thought that each individual had the power to decide over their own benefit and truth by themselves. Thus, there appeared a new understanding of society revealed by individuals on their own and, depending on this, a new understanding of the manner of society that sovereignty consisted of the united power of individuals that composed the society (Ingram, 2019: 181-182). Therefore, the State became instrumentalized as never before as a tool having a power limited enough to fulfill only its duties in Locke’s theory.

As Locke can be regarded in the important historical function of natural legislative tradition for western thinking, he has an important place in terms of his being a bridge between us and both the new concepts he disclosed in his own theory and the tradition within his thoughts. From this point of view, it should be stated that Locke is a turning point in terms of natural law tradition. While disclosing the innovations and concepts that he put forward with his theory caring for the heritage by tradition, he added their still- valid values into his system and centralized the individual, leaving as a legacy these values with an understanding based upon the individual’s values to modern world. However, his work *Two Treatises of Government* still keeps its qualification preserving its importance in which the aim of natural law understanding to question positive legislation was scrutinized, in which the unassignable rights
of humans were mentioned, in which it was told that submission to the law not suitable for the human and their values was out of question, and in which context the right of people towards revolution was legalized. Here again for the first time, Locke mentioned clearly that the superior power in the society was public and there was a field that even the state cannot interfere in. Locke, who established our liberal democracy understanding dating to our time, is also important in respect that he is a haunt in which natural law tradition is transmitted to modern thought.

From these viewpoints, the first teaching belongs to Locke, in which the relationship that natural law thinking formed between laws and morals presented a revolutionary and transformative character rather than being conservative. The distinctiveness and importance of Locke at this point should be found in his presenting the moral law that they presented as the guide of behavior within tradition and with which they informed the people about their duties as a law expressing the rights of the individual and in his evaluating this law as a measure by which law, administration or any kind of institution regarding the human could be evaluated and judges by applying for it. Locke defined the concept of nature law expressed since stoics as a moral principle which all smart beings could explore in their own lives, by placing it to the basis of his own system. Thus, with this modern rationalism he based on human’s autonomy, Locke reshaped human’s equality, freedom and moral principle of tradition as a principle informing the frame of their rights. Through this teaching as nature law meaning acting from the individual, Locke mentioned for the first time about the unassignable rights of the individual at the same time. So, on the one hand Locke protected the bonds with tradition as a theoretician of nature law, on the other hand he disclosed a totally modern concept as a theoretician of human rights (Torun, 2012: 240). Then, in terms of forming a bond between the tradition and modern thinking, it wouldn’t be wrong to say that an important part of the values carried today by nature law thinking was founded by Locke. The most important of these values is of course ‘human rights’.

The world and society in which we live today necessitate a new thinking and revision over the relationships between philosophy and politics, human rights and natural law within the frame of modern political thought considering the problems experienced. Considering that the concept of human rights and democracy were derived from the thinking of natural law, these concepts’ being accidental tag labels in national and international dimension can be prevented by considering again this thinking structure being a resource for the values they had.
References


KATILIM BANKACILIGININ GELISIMI

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Giriş


İslam bankacılığındaki genişleme dönemi, 1974 yılında İslam ülkeleri örgütü tarafından İslam Kalkınma Bankası'nın kurulmasıyla gerçekleşmektedir. İslam Kalkınma Bankası'nın kurulmasının başlıca


Dünya çapındaki finans kuruluşlarının başarısızlıklarının ardından, merkez bankaları ve küresel finans kurumları, paramparça olmuş finansal sistemi elden geçirmek için işbirliği yaptığı. Bu kurumlar, aşırı risk algısını azaltmak için birkaç ortak düzenleyici önlem aldı. Dünya çapında devam eden bu düzenleyici çabaların ötesinde, 2008 mali krizi, mevcut bankacılık planını yeniden düşünmek için acil bir ihtiyacı ortaya koydu. Bu bağlamda, İslami bankacılık küresel finanstta daha fazla ilgi


Dünya’da Katılım Bankacılığı


teşvik etti. DTÖ anlaşmasının bankacılık sektörü için yaygın etkileri vardır. Sonuç olarak, DTÖ anlaşması uyarınca, İslami bankalar, özellikle birçok konvansiyonel banka, İslami bankacılığın, yeni pazarlara erişim farkındalığına dezenfektörü olmuştur. Bu nedenle, Barclays, Citibank, HSBC ve ANZ gibi İslami hizmetler sunan bir dizi geleneksel bankayı görmek şaşırtıcı olmuştur (Karbhari vd., 2004).

İngiltere: İngiltere'de İslami finans alanında büyük gelişme 30 Kasım 2001 tarihinde gece yarısından itibaren tam olarak uygulanmıştır. Finansal Hizmetler ve Piyasalar Yasası 2000, altında İngiltere İslam Bankası açılması olmuştur. Bu Yasa, Avrupa'nın ilk tamamen İslami bankası olan İngiltere İslam Bankası'na, İngiltere'deki 1,8 ila 2 milyon Müslüman'a Şeriat'a uygun finansal ürünler sunma yetkisi verdi. İngiltere İslam Bankası da bir kardeş banka başlattı - Avrupa İslam Yatırım Bankası (11 Ocak 2005'te Avrupa'nın ilk İslami yatırım bankası olmak üzere kurulmuş), Bahreyn merkezli İslami Ortak Girişim Ortaklıkları ile birlikte ve lisans için FSA'ya başvurdu (Ahmad ve Hassan, 2006). İngiltere'de İslami finans, mevcut olan 1,8 ila 2 milyon cittavadır ki Müslümanlar için hayatın önemli bir parçasıdır (HM Hazine, 2005). Londra, Büyük ölçüde Şehrin Orta Doğu ve Asya bankacılığının merkezi rolünün bir sonucu olarak, İslam dünyası dışındaki en büyük uluslararası İslami finans merkezi hâline gelmiştir.


İrlanda: İrlanda hükümeti İslami finansın gelişmesine katkıda bulunmuş ve bu yönde gelişim olmasını açıkça istemiştir. Buna örnek olarak İrlanda finansal düzenleyici kurum şeriatı uygun yatırım fonlarının oluşturulması ve bunların geliştirilmesi için özel bir ekip kurmuştur. İrlanda hükümeti özellikle Müslümanlara hitap eden murabaha, finansal kiralama (leasing) ve İslami sigorta (tekafül) ürünleri için bazı geliştirmeler yapmıştır (Özen, 2019).

uyumlu menkul kıymetlerle çeşitlendirdiler, ör. sukuk (kira sertifikaları), gelire endeksli tahviller gibi (Aysan vd., 2013).


Katılımcı Bankacılık İşleyişi

Katılımcı bir banka, temelde bir borçlu ve borç veren olan geleneksel bir bankaya kıyasla, mevduat sahiplerinin fonlarını verimli doğrudan yatırımarda kullanırken, bir yanda mevduat sahipleriyle bir ortak ve diğer yanda girişimcilerle ortaklaştır (Moin, 2008).


- Faize dayalı borç işlemlerinde bulunmamak,
- Gerçek ekonomik faaliyetten kopuk, tamamen finansal bir işlem yapmamak,
- Herhangi bir tarafın sömürülmesinin olduğu bir işleme katılmamak ve
- Topluma zararlı kabul edilen faaliyetlere katılmamaktadırlar


*İcare:* İcare, bir müşterinin ihtiyaçını olan bir şeyin kiralanmasıdır. Bu finansman biçiminde, katılım bankası önce bir kredili müşterinin ihtiyaçı olan bir şeyi satın alır ve sonra bunu kredi müşterisine kiralar. İki yöntem var. İlk durumunda banka sözleşmesi sonunda kira konusunu geri alır. İkincisi durumunda ise kiralama konusu mükkiyet hakkı kredili müşteriye geçer (Gökalp ve Turan, 1993).
Selem: İslâm hukukunda Selem, bir malın nakit olarak satılmasını veya üretim süreci devam eden bir mal ile hazır bir malın takas edilmesini içerir. Katılım Bankacılığı sisteminde, örneğin, bir katılım bankası, bir çiftçinin mallarını hasat öncesi bir tarihte peşin olarak satın alır ve malları hasat zamanında teslim alır. Buradaki amaç, çiftçinin mali ihtiyaçlarını hasat öncesi dönemde karşılamaktır. İşlem sonunda katılım bankası malları hasat zamında piyasa fiyatından satarak kârli alış fiyat ile satış fiyat arasındaki farktan almakta (Kaya, 2010).

Sukuk: Sukuk (İslami bono), yeterli likiditeye sahip olmayan girişimciler veya finansal kaynağı olmayan potansiyel girişimciler için İslami kurallara uyan faaliyet gösteren finansal kuruluşlar aracılığıyla sermaye piyasası fonlarının kaynağıdır. Sukuk türleri, emek ve sermaye ortaklığı içerir. Bir tür suuk, sahiplerine öngörülebilir ve belirli bir gelir sağlayabilir, diğer suuk türleri sahiplerine yatırım karı veya zararı sağlayabilir. Selem ve icare birinci grubu (varlığı), mudaraba ve müşareke ikinci grubu (öz sermaye) temsili etmektedir (Şensoy, 2012).

Sonuç

Çalışma üç açıdan ele alınmıştır. Öncelik olarak küresel Mısır’dan doğuşundan ve temel esaslarının oluşturulmasından bahsedilerek dünyada yaygınlaşması sürecini ve ilk örneklerini ele almaktayız. Bu arada dünyada belli başlı ülkelerdeki tarihini de yer verilmiştir. Devamında Türkiye’deki doğuşu ve gelişiminden bahsedilmiştir. Çalışmanın sonunda ise katılım bankacılığının hücresel ve ulusal sahada gelişiminin incelenmesi hedeflenmiştir.

Sonuç olarak yapılan literatür derlemesi nihayetinde katılım bankacılığının özellikle Türkiye’de büyümeye devam et就来看看 bir sektör iken yurtduşundaki gelişimi doğu ve batı bağlamında ayrı ayrı ele alınması gereken bir çalışma sahasını oluşturduğu kansına varılmıştır. Nitekim her blokun varlığı, geçmişi, stratejileri ve kapasitelerinin sektörün gelişimi üzerinde doğrudan etkisi bulunmaktadır.

Öneriler
Yapılan araştırma nihayetinde 19.yy’ın ilk yarısına uzanan bankacılık sektörünün katılım bankacılığı sahasının ilk örneği 20.yy ikinci yarısında
görülmektedir. Dolayısıyla sektörünün genç örneği katılım bankacılığının spesifik ve büyümesini sürduren bir alan olduğu söylenebilir. Öte yandan ülkemizde de büyüyen bu sektörün faiz ve risk yasakları temelinde genel işleyiş esasları çerçevesinde çalışma portföylerinin genişletmesi müşteri yelpazesinin yalnızca İslam toplumlarıyla sınırlandırılmasının ötesine geçerek yaygınlık alana kazandıracak büyümesini artıracaktır. İleride yapılacak çalışmaların bu noktaya ithafen alternatifler sunması hem akademik hem de pratik sahaya farklı bir soluk kazandıracaktır.

Kaynakça


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ETİK LİDERLİĞİN ÖRGÜTSEL SESSİZLİK ÜZERİNDEKİ ETKİSİNDE LİDER ÜYE ETKİLEŞİMİNİN ARACILIK ROLÜ

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1. Giriş


Literatürdeki çalışmalar, etik liderlik davranışlarının çalışanlarda oluşturduğu güven duyguşuyyla çalışanların sessizlik davranışını azaltarak ses davranışını artırını işaret etmektedir (Walumbwa & Schaubroeck, 2009). Brown et al. (2005), çalışanların etik liderlerin adil ve son dereceahlaki bir ortam sağladığını algıladıkları, çalışanların liderin hareket tarzını öğrenip içselleştirdiğini ve bu kișiyile uyumlu davranışını; şöylece,
konuşma, sorunları rapor etme ve liderlere önerilerde bulunma olasılıklarının daha yüksek olduğunu belirtmektedir. Benzer şekilde de Hoogh and Den Hartog (2008), etik liderlerin çalışanları görüşlerini ifade etmeye teşvik ettiklerini ve endişelerini dinlemeye istekli olduklarını, böylece çalışanların ses davranışlarını kolaylaştırdıklarını ön sürmektedir.

2. Literatür Taraması ve Hipotezlerin Oluşturulması

2.1 Etik Liderlik

Etik liderlik en yaygın olarak "kişisel eylemler ve kişilerarasi ilişkiler yoluya normatif olarak uygun davranı̇şın gösterilmesi ve bu davranı̇şın iki yönlü iletişim, pekiştirme ve karar verme yoluya teşvik edilmesi" olarak tanımlanmaktadır (Brown et al., 2005, p. 120). Etik liderlerin normatif olarak uygun davranışlar sergilemeleri gerektiği göz önünde bulundurulduğunda, etik liderlik, ahlaki yönetimi uygulama vurgusuyla diğer liderlik tarzlarından ayrılmaktadır (Brown & Treviño, 2006).


2.2 Lider Üye Etkileşimi


2.3 Örgütsel Sessizlik

Örgütsel sessizlik çalışanların işyerindeki veya iş ortamındaki gelişmeler hakkında bilinçli olarak görüşlerini açıklamayı reddetmeleri olarak tanımlanmıştır (Van Dyne vd., 2003,s.1361). Örgütsel sessizlik, bireylerin davranışlarını hakkında herhangi bir gerçek ifadeden reddedilmesidir (Şehitoğlu, 2014). Sessizlik kuruluşun özelliğinden etkilenmektedir. Bu özellikler arasında karar alma süreçleri, yönetim süreçleri, kültür ve çalışanların sessizliği etkileyen faktörlere ilişkin algıları yer almaktadır (Dimitris & Vakola, 2007); ancak çalışanların kuruluşta sessiz kalmasına neden olan iki ana faktör, yönetimın onlar hakkındaki görüşleri ve işlerini tehlkiye sokacak olumsuz geri bildirim
riskidir. Liderin herşeyin en iyisini bildiği iddiası örgütte zarar verebilmeke te der. Bu iddialar örgüt içinde gerçek dışı olmasıına rağmen, örgüt çalışanlarında korku, aldatma ve öfke gibi yıkıcı duygular oluşturarak çalışanların sessiz kalmamasına neden olmaktadır (Slade, 2008).


Sessizlik farklı biçimlere ayrılmıştır:


İtaatkar Sessizlik: İnsanlar sessiz diye nitelendirildiklerinde, genellikle aktif olarak iletişim kurmadıkları akla gelmektedir. Bu tür davranışlardan kaynaklanan sessizlik itaatkâr sessizlik olarak adlandırılır ve herhangi bir koşula boyun eğmeye ve kabul etmeye dayalı fikir, bilgi veya yorum yapmayı reddeder. İtaatkâr sessizlik aktif olmakta ise, ek olarak pasif ve çekilme davranışını işaret etmektedir (Zarei Matin, Taheri, & Sayyari, 2011, p. 82).

Özgecil Sessizlik: Özgecil sessizlik, başkalarına fayda sağlamak için işle ilgili fikirleri, bilgileri veya görüşleri ifade etme reddeden vatandaşlık davranışını literatüründede dayanmaktadır. Fedakârlık ve işbirliğine dayanan bu tür sessizlik kısıtlı ve pasif değildir, öncelikle diğerlerini korumaya odaklanmaktadır (Zarei Matin et al., 2011).

3. Değişkenler Arasındaki İlişkiler

3.1 Etik Liderlik ve Lider Üye Etkileşimi

Etik bir liderin takipçilereyle ilişki kalitesini artırmak için birkaç yol olabilir. Örneğin, ahlaki bir birey olarak kabul edilen etik liderler, iyi kararlar alan ve hem çalışanlara hem de işletmeye güçlü bir ilgi gösteren güvenilir, güven oluşturucu, etik insanlar olmak zorundadırlar.
Çalışanlar, liderin kendilerini önemsediğini ve sadık olduğunu algıladığında Lüe’mi nitelikleri zenginleşecektir (Brown et al., 2005, p. 123; Walumbwa et al., 2011, p. 205).

Etik liderler, çalışanlarına etik davranış sergilemelerini ve etik olmayan davranışların rasyonel ve makul yargılara disiplinle sonuçlanacağını hissettiirler. Kişilerarasi güçlü bağlar kuran etik liderler aynı zamanda üye etkileşimine de sahip olacaklardır. (Walumbwa & Schaubroeck, 2009, p. 1277). Bu bulgular ışığında aşağıdaki hipotezi öne sürebiliriz:

Hipotez 1: Etik liderlik ve Lider üye etkileşimi arasında pozitif ve anlamlı bir ilişki vardır.

3.2 Lider Üye Etkileşimi ve Örgütsel Sessizlik


Hipotez 2: Lider üye etkileşimi ve Örgütsel Sessizlik arasında negatif ve anlamlı bir ilişki vardır.

3.3 Etik Liderlik ve Örgütsel Sessizlik

H3: Etik liderlik ve örgütsel sessizlik arasında negatif ve anlamlı bir ilişki vardır.

H4: Etik liderlik ve örgütsel sessizlik arasındaki ilişkide Lider üye etkileşiminin aracılık rolü vardır.

4. Araştırmanın Yöntemi

Veri analizi için Spss 21, Amos 21 ve Process macro uygulamaları kullanılmıştır.

4.1 Araştırmanın Modeli

Yapılan alan yazılı taraması sonucunda aşağıdaki model tasarlanmıştır.

Şekil 1. Araştırmanın Modeli

4.2 Araştırmanın Evren ve Örneklemi

4.3 Araştırmanın Ölçekleri


5. Bulgular

### Tablo 1. Uyum İyiliği Değerleri

<table>
<thead>
<tr>
<th></th>
<th>$X^2$</th>
<th>$df$</th>
<th>CMIN/DF</th>
<th>SRMR</th>
<th>IFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etik Liderlik</td>
<td>83.290</td>
<td>25</td>
<td>3.332</td>
<td>.028</td>
<td>.976</td>
<td>.975</td>
<td>.965</td>
<td>.074</td>
</tr>
<tr>
<td>Lider Üye Etkileşimi</td>
<td>51.227</td>
<td>12</td>
<td>4.269</td>
<td>.020</td>
<td>.987</td>
<td>.987</td>
<td>.977</td>
<td>.079</td>
</tr>
<tr>
<td>ÖrgütSEL Sessizlik</td>
<td>316.851</td>
<td>87</td>
<td>3.642</td>
<td>.060</td>
<td>.947</td>
<td>.947</td>
<td>.936</td>
<td>.079</td>
</tr>
<tr>
<td>Ölçüm Modeli</td>
<td>839.828</td>
<td>422</td>
<td>1.990</td>
<td>.056</td>
<td>.958</td>
<td>.958</td>
<td>.954</td>
<td>.048</td>
</tr>
</tbody>
</table>

Değişkenlere ait güvenilirlik, betimleyici istatistikler ve korelasyon değerleri Tablo 2’de yer almaktadır. Tablo 2 incelediğinde değişkenler arasında anlamlı pozitif ve negatif ilişkiler gözlenmektedir.

### Tablo 2. Betimleyici İstatistikler ve Korelasyon Katsayları

<table>
<thead>
<tr>
<th></th>
<th>Ort.</th>
<th>Std. Sapma</th>
<th>Çarpıklık</th>
<th>Basıklık</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etik Liderlik</td>
<td>3.385</td>
<td>.751</td>
<td>-.542</td>
<td>-.030</td>
<td>(93)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lider Üye Etk.</td>
<td>5.077</td>
<td>1.379</td>
<td>-.845</td>
<td>.376</td>
<td>.400**</td>
<td>(93)</td>
<td></td>
</tr>
<tr>
<td>ÖrgütSEL Sessizlik</td>
<td>2.397</td>
<td>.9419</td>
<td>.960</td>
<td>1.248</td>
<td>-.301**</td>
<td>-.317**</td>
<td>(91)</td>
</tr>
</tbody>
</table>

** p<.001, n= 424, parantez içinde verilen değerler Cronbach alfa değerleridir.
İkinci aşamada, araştırma modeli için Amos paket programı ile yapısal eşitlik modeli oluşturulmuştur.

Şekil 1. Araştırmanın Modeli
Tablo 3. Aracılık Testine İlişkin Regresyon Analizi Sonuçları (N=424)

<table>
<thead>
<tr>
<th>Tahmin Değişkenleri</th>
<th>M (Lider- Üye Etki.)</th>
<th>Y (Örgütsel Sessizlik)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (Etik Liderlik)</td>
<td>a ( \beta = .677^{<em><strong>} ) ( .083 ) ( c' = -.175^{</strong></em>} ) ( .064 )</td>
<td>( b ) ( -.113^{**} ) ( .035 )</td>
</tr>
<tr>
<td>M (Lider- Üye Etki.)</td>
<td>- ( \beta = -.113^{<strong>} ) ( b = -.113^{</strong>} ) ( .035 )</td>
<td>( \beta = -.174 ) ( p&lt;.01 ) ( %95 \ CI [-.30, - .50] )</td>
</tr>
<tr>
<td>Sabit</td>
<td>İm ( 2.472^{*<strong>} ) ( .3254 ) İy ( 3.6444^{</strong>**} ) ( .247 )</td>
<td>R(^2) = .136 ( R(^2) = .064 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F(1;422)=66.539; ( p&lt;.001 )</td>
</tr>
</tbody>
</table>

Not: *\( p < .05 \), **\( p < .01 \), \( p < .001 \); S.H. : Standart Hata. Standardize edilmemiş beta katsayıları (b) raporlanmıştır.

Analiz neticesinde Etik liderlik lider üye etkileşimi üzerinde \( (\beta = .677, p < .001, \%95 \ CI [.51, .84]) \) pozitif yönde anlamlı bir etkiye sahiptir. Bu durumda \( H_1 \) hipotezi desteklenmiştir. Yine algılanan lider üye etkileşimi örgütsel sessizlik üzerindeki etkisi \( (\beta = -.113, p < .001, \%95 \ CI [-.18, -.4]) \) negatif yönde anlamlı bir etkiye sahiptir. Bu durumda \( H_2 \) hipotezi desteklenmiştir. Etik liderliğinin örgütsel sessizlik üzerindeki doğrudan etkisi \( (\beta = -.174, p<.01, \%95 \ CI [-.30, -.50]) \) positif yönde anlamlı bir etkiye sahiptir. Bu durumda \( H_3 \) hipotezi desteklenmiştir. Çalışanların etik liderlik algılarının örgütsel sessizlik üzerindeki etkisi lider üye etkileşiminin aracılık rolünü olup olmadığını test etmek amacıyla bootstrap yöntemi esas alan regresyon analizi yapılmıştır. Bootstrap yönteminin, Baron ve Kenny’nin (1986) geleneksel yöntemden ve Sobel testinden daha güvenilir sonuçlar verdiği ileri sürülmektedir Hayes (2018). Analizler, Hayes tarafından geliştirilen Process Makro kullanılarak yapılmıştır. Analizlerde bootstrap tekniği ile 5000 yeniden örneklem seçeneği tercih edilmiştir.

Bootstrap tekniği ile yapılan aracılık analizlerinde, araştırma hipotezinin desteklenmesi için analiz neticesinde elde edilen \%95 güven aralığındaki (Confidence Interval, CI) değerinin sıfır (0) değerini kapsaması gerekmektedir (Mac Kinnon, Lockwood ve William, 2004). Bu amaçla analiz sonuçları Tablo 4 de verilmiştir. Lider üye etkileşiminin örgütsel sessizlik üzerinde dolaylı etkisini olup olmadığını Bootstrap tekniği ile elde edilen güven aralıklarına göre tespit edilmiştir.
Buna göre etik liderliğin örgütsel sessizlik üzerinde dolaylı etkisinin anlamlı olduğu dolayısıyla da lider üye etkileşiminin, etik liderlik ve örgütsel sessizlik arasındaki ilişiye aracılık ettiği tespit edilmiştir \((b = -.767, \%95 BCA CI [-.122 , -.034])\). Bootstrap analizi neticesinde düzeltilmiş yanlılık ve hızlandırılmış güven aralığı değerleri \((BCA CI) 0\) değil deyişini kapsamamaktadır. Aracılık etkisinin tam standartize etki büyüklüğü \((K2) -0.061\) olup bu değerin orta değere yakın bir etki büyüklüğü olduğu söylenebilir. Bu sonuçlar ışıında araştırmanın \(H_4\) hipotezi de desteklenmiştir.

6. Sonuç


Analizin ikinci aşamasında lider-üye etkileşiminin örgütSEL sessizlik üzerinde olumsuz etkisi olduğu tespit edilmiştir. Bu bulgu, literatürde lider-üye etkileşiminin örgütSEL sessizlik üzerindeki etkisini belirlemek üzere yapılan diğer araştırmalar sonuçlarıyla da uyumludur \((Chou et al., 2018; Cop & Ozturk, 2017; He et al., 2006; Liang & Wang, 2016)\). Yüksek kaliteli Lüe'li çalışanlar, amirlerinin potansiyellerini fark etmek, tanıma ve zorlu iş fırsatları da dahil olmak üzere yüksek düzeyde duygusal ve enstrümental desteği de ifade eder \((Graen & Uhl-Bien, 1995)\). Yüksek Lüe ayrıca teşvik, tanma ve zorlu iş fırsatları da dahil olmak üzere yüksek düzeyde duygusal ve enstrümental desteği de ifade eder \((Graen & Uhl-Bien, 1995)\). Yüksek kaliteli bir Lüe astları kendi denetçileri işyerinde sosyal destek önemli kaynakları olduğuna inanmak eğilimindedir \((Halbesleben, 2006)\). Lüe teorisi, bir grup içindeki farklılaştırılmış sosyal


Kuruluşlar üzerinde sessizlik ve olumsuz etkilerin belirlenmesi ve yöneticilerin bu olayları daha iyi gözlemleyerek ve sessizliği önleyecek tedbirler alması gerekmektedir.

Analizi son aşamasında Lider üye etkileşiminin etik liderlik ve örgütsel sessizlik ilişkisi arasında aracılık rolü olduğu tespit edilmiştir. Etik liderliğin ve Lüe etkileşiminin örgütsel sessizlik üzerinde negatif ve anlamlı bir etkiye sahip olduğu literatürde yapılmış çalışmalarla da tespit edilmiştir. Araştırmının en önemli kısıtı zaman içerisinde çalışanların algılarının değişebileceğini de göz önüne alınarak ilerleyen zaman içinde araştırmannın yenilenebileceğini sonuçların kontrolü açısından faydaly olacaktır. Diğer bir kısıt ise bir şehir ve çevre ilçe belediyeleri üzerinde yapılmıştır. Araştırmannın farklı il, ilçe ve departmanlarda yapılması farklı sonuçların alınmasına sebep olabilecektir. Ayrıca daha sonraki çalışmalar da araştırma modeline örgütsel güven, örgütsel adalet ve örgütsel vatandaşlık

90
davranışı değişkenlerinin de eklenmesiyle sessizlik davranışının sebepleri daha ayrıntılı olarak değerlendirilebilecektir.

**Kaynakça**


TWO-SIDED ASSEMBLY LINE BALANCING WITH ERGONOMIC RISK FACTOR

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1. Introduction

Assembly line balancing (ALB) problems are basically solved in a way to balance the processing times in the stations by considering the precedence constraints of the tasks. However, there are many important constraints that affect assembly lines in real life. One of these is ergonomic constraints that take human health into account. The power consumed and the method used by the operators may not be the same for each task on assembly lines. Although the line stations have balanced workloads in terms of task duration, they can be unbalanced in terms of the physical demand of the tasks. This condition adversely affects both operator health and production efficiency. This study presents a perspective that deals with workload balance not just in terms of task duration but also in terms of ergonomic risk level in two-sided assembly lines, which are widely used in the production of buses, trucks, and automobiles. Genetic Algorithm (GA) was used in order to minimize the number of the station by taking into account the risk score value of each task determined by the REBA method. As a result, it was aimed to obtain the line balance that gives the lower difference of balance in terms of both time and the ergonomic risk level among the alternative line balances. An example was solved for a two-sided assembly line in the study. A balanced two-sided assembly line was generated for both the number of stations in terms of task duration and the workload of the operators in terms of ergonomics.

Two-sided assembly lines are the assembly line type where large-sized products are made and that have synchronized tasks. The parts that are transferred through a manual or a conveyor are processed at workstations parallel placed on both the right and left sides of the assembly line and the final product is manufactured. Some tasks in automotive products such as buses (Figure 1), cars, tractors, and trucks are more convenient to be assembled on the right or left side of the product. For instance, parts on the right side of the car (right door, glass, rearview mirror, etc.) should be assembled from the right side of the assembly line. Therefore, these lines allow operators to assemble each task synchronously at stations on both sides of the line (Mete, Ağpak, 2013).
ALB problems are usually solved by aiming to balance the number of stations (type-1) or station cycle time (type-2). For these purposes, the precedence diagram of the tasks and the processing duration of the tasks are taken into consideration. However, in real life, many factors such as work zone, internal logistics, resources, and ergonomics affect assembly lines. One of them is ergonomic constraints that give human health prominence. Station processing durations are kept close to each other in order to ensure workload balance that will prevent loss of balance in terms of time in assembly lines. However, it is not only a workload balancing in terms of the task duration but also the effort required for each task must be taken into account. Because even though the tasks have the same or similar workload in terms of duration, they may not have the same workload in terms of effort spent and method applied by the operator. This can cause an ergonomic workload imbalance among the stations.

Especially in labor-intensive assembly lines, repeated long-term performance of similar or same jobs more and more increases the demanding level on the worker (Baykasoğlu, Akyol, 2014). Postures such as prolonged standing, crouching, leaning, reaching, or turning during work are continuous and monotonous. These working postures that are not ergonomically suitable are repeated throughout the day (Kahya, Şahin, Daşdelen, Doğru, 2018). Monotony may cause various discomforts related to the back, hand, wrist, elbow, and shoulder. In other words, overloading to some operators in assembly lines with ergonomic workload imbalances does not only cause productivity and workforce losses but can also cause
permanent damages and injuries to operators in the long term. In order to avoid these problems, ergonomic constraints and conditions should be considered in the ALB problems. It should be ensured that the risk level at each station is at a certain standard, taking into account the ergonomic risk factors at the stations.

This study, for the stations in the two-sided assembly line, presented a perspective for both reducing to an acceptable level the ergonomic risk level and for balancing the stations by considering the cycle time. Through the REBA method, which is widely used in the literature, the ergonomic risk score of each task was considered. By including the REBA scores, the two-sided ALB problem was solved by the Genetic Algorithm (GA) meta-heuristic method.

The remaining content of the study is as follows: Section-2 presents detailed literature about ergonomic ALB problems. Section 3 is about two-sided ALB and ergonomic risk levels. The structure of the proposed approach and an example are presented in Section 4. Finally, the conclusions are discussed in Section 5.

2. Scientific literature review for ergonomic assembly line balancing

When the literature is reviewed, it is seen that line balancing and ergonomic criteria were analyzed independently from each other (Xu, Ko, Cochran, Jung, 2012). Although ergonomic constraints have a significant effect on the design of assembly lines in terms of human health and productivity, they have started to attract new attention in the literature.

One of the first noteworthy studies addressing ergonomic constraints in the assembly lines was presented by Moreau (2003). He proposed ergonomic assessment tools for custom design tools of Peugeot-Citroën. In assembly lines, it improved both cycle time by 30% and improved the working zone in terms of operators. Battini et al. (2007) studied how ergonomics and assembly system configurations are closely related in practice. In the real-life problem, they reduced injuries and operator fatigue and achieved a 15% increase in productivity.

Otto and Scholl (2011) presented a perspective that considers ergonomic risks in simple ALB problems, which they call Ergo-SALBP. For the type-1 problem, they included the ergonomic level in the constraints and the objective function. They utilized the OCRA index to determine the ergonomic risk. Mutlu and Ö zgörmüş (2012) took into account physical workload constraints to prevent work-related injuries in ALB problems. They proposed a fuzzy linear programming model for type-1 problems. They applied the proposed method for the ALB problem in a textile company. Güner and Hasgül (2012) proposed an integer
programming model including ergonomics factors in order to ensure the balance stability in the U-type assembly lines. They considered incompatibility among the tasks, performance factors of labors, amount of used energy along with the number of stations. Cheshmehgaz et al. (2012) presented a method determining risk levels for the body postures of operators in the assembly lines. They determined the risk levels through a parameter called ARP (Accumulated Risk of Posture). Then, they reached a solution for a sample problem through a multi-criteria fuzzy genetic algorithm heuristic by considering cycle time and total physical workload. Baykasoğlu and Akyol (2014) used the OCRA index in order to determine the ergonomic risk level and analyzed the risk levels of assembly line stations. Kara et al. (2014) presented a cost-oriented integrated model that includes ergonomic and resource constraints in ALB problems. They included criteria such as psychological and physical demands, operator capabilities, multi-operator, equipment requirements, and the illumination levels as constraints in the model.

Akyol and Baykasoğlu (2019) presented a new method that takes ergonomic risk factors into account. In this method called ErgoALWABP, they developed a multiple-rule based constructive randomized search algorithm to solve ALB and worker assignment problems under ergonomic risk factors. Şahin and Kahya (2018) proposed a model that considers ergonomic risk factors for ALB problems by calculating the demanding level of each task through the REBA method. Each station’s REBA score was determined as 10 and added to the model as a constraint, and the model was solved in the GAMS package program. An improvement of approximately 15% was achieved in total performance. Kahya et al. (2018) developed a new ALB model by taking into account the risk factor levels calculated with the REBA method along with the precedence relationships and cycle time constraints. An improvement of 3.34% was achieved in the model generated by using the COMSOAL algorithm. Polat et al. (2018) presented a model to balance physical workloads and cycle time for the type-2 problem. They utilized the REBA method in order to determine physical workloads in the assembly line. By using REBA scores, they included a second aim together with the cycle time, not exceeding a certain workload value of each station. Kahya and Şahin (2019) proposed a new ergonomic ALB model using the longest operating times technique. In the proposed method, cycle times, task duration, precedence diagram, and ergonomic risk factors were considered together. An improvement of 7.41% was achieved in total performance.

Although the studies in the literature have recently increased, they are still quite limited. If we consider the above-mentioned studies, we can say that no work, to the best of our knowledge, has been done for two-sided assembly lines up to now. In this study, in order to balance the type-1 two-
sided assembly line, ergonomic risk levels of the tasks along with cycle time and the precedence relationship were taken into account. REBA score of each task was taken into account for ergonomic risk levels and integrated into the two-sided ALB problem.

3. Assembly line balancing and ergonomic risk levels

The main objective function in type-1 problems of all kinds of assembly lines is to minimize the number of stations. For this, the precedence relations of tasks and cycle time of stations are taken into consideration. However, there are many different criteria for assembly lines in real life. One of these is ergonomic constraints.

Since assembly lines, especially the lines where the final assembly is made, are among the stages where the labor force is needed most, ergonomic applications should be given importance (Şahin, Kahya, 2018). Although there is no duration difference among the tasks in the assembly line, the workload may differ in terms of the physically demanding and the task's method. Therefore, the ergonomic criteria should be taken into consideration along with the precedence constraint, cycle time, and station numbers. Thus, by using more effectively the labor force resource, the most valuable resource, both human health will be protected and the efficiency of the assembly line will increase.

3.1. Two-sided assembly line balancing problem

Two-sided assembly lines are designed to produce high volume and large-sized products such as cars, trucks, buses, or tractors. Both left-side (L) and right-side (R) of the line are used in parallel in a two-sided assembly line (Özcan, Toklu, 2009). In two-sided assembly lines, some tasks need to be assembled on only one side of the line (L and R-type tasks), while some tasks can be assembled on both sides (E-type). The classic two-sided assembly line is shown in Figure 2. Station (1,2) refers to the right (2) station 1 of mated station 1.

<table>
<thead>
<tr>
<th>Left stations</th>
<th>station (1,1)</th>
<th>station (2,1)</th>
<th>-----</th>
<th>station (n-1,1)</th>
<th>station (n,1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Stations</td>
<td>station (1,2)</td>
<td>station (2,2)</td>
<td>-----</td>
<td>station (n-1,2)</td>
<td>station (n,2)</td>
</tr>
</tbody>
</table>

**Figure 2:** A two-sided assembly line


There are two types of problems as with other ALB problems. Type-1: minimization of the number of mated-stations (i.e., the line length) for a
given cycle time; and type-2: minimization of the cycle time for a given number of mated-stations (Özcan, Toklu, 2009).

Type-1 two-sided assembly lines, like other assembly-line categories, must guarantee some fundamental constraints: (i) the constraint of precedence relationship among the tasks; (ii) the constraint that each task must be assigned to only one station; (iii) the constraint that any task duration cannot exceed the cycle time. Note that, for two-sided assembly lines, while each task is assigned to only one station, attention must be paid to the constraint that it must be assigned to either the right or left station. The objective function is to minimize the number of stations.

In type-1 two-sided assembly lines, alternative solutions may be obtained with the same number of mated-stations due to the tasks that can be assigned to both sides (either left or right). However, one of these alternatives may consist of fewer stations than others. That is, the number of stations should be considered along with the number of mated-stations since one of the alternatives may be better balanced than the others (Özcan, Toklu, 2009).

The components wait during the cycle time at each mated-station. At these mated-stations, operators work on opposite sides of the line by simultaneously performing different tasks for the related component according to a pre-determined precedence diagram.

There are many solution methods for the two-sided ALB problem. Like other ALB problems, two-sided ALB problems are also in the NP-hard problem class. Therefore, when the size of the problem grows, it is very difficult to obtain an optimal result through linear programming, 0-1 integer programming methods. Heuristic and meta-heuristic methods are widely used.

3.2. Ergonomic risk level methods

The excessive physical workload at assembly stations and monotonous postures such as standing, crouching, reaching out, or turning can trigger musculoskeletal disorders (MSDs). The methods used to assess the MSD risk of the tasks in the stations can be classified under three main headings (David, 2005; Village, Frazer, Leyland, Uy, 2008): Subjective judgement, systematic observation, and direct measurements.

3.2.1. Subjective judgement: These methods are low-cost and can be applied to large-scaled samples. The questionnaire and checklists are utilized for subjective assessment by laborers. There are many questionnaire methods in literature. Some of these are as follows: Nordic Musculoskeletal Questionnaire, Dutch Musculoskeletal Discomfort Questionnaire, and Swedish Occupational Fatigue Inventory.
3.2.2. **Systematic observation:** Systematic observations-based methods are used in order to systematically record workplace risk exposures and to make quantitative assessments. There are two main observation categories: Simple observation-based methods and advanced observation-based methods (see, Şahin, Kahya, 2018; Özel, Çetik, 2010). REBA, OWAS, NIOSH, and OCRA are systematic observation-based methods widely used in the literature.

3.2.3. **Direct measurements:** These are the methods that measure human movements and postures with electromyography (EMG), biomechanical, and optical instruments. These methods, which provide the most objective evaluation, are quite expensive due to the devices and tools used.

REBA Method: REBA (Rapid Entire Body Assessment) method is an observational method developed by Hignett and McAtamney (2000) in Nottingham. It is used to analyze the posture of all body movements. It is a numerical analysis method that scores body movements to identify postures that may cause vocational risks. In the REBA method, postures that are repeated frequently, take time, and require effort should be considered.

The REBA method determines a score between 1 and 15 depending on the flexions and extensions that occur in the trunk, neck, legs, upper arms, lower arms, and wrists during a working posture. The risk levels of REBA scores are shown in Table 1.

**Table 1:** REBA action levels


<table>
<thead>
<tr>
<th>Action Level</th>
<th>REBA Score</th>
<th>Risk Level</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>Negligible</td>
<td>None necessary</td>
</tr>
<tr>
<td>1</td>
<td>2-3</td>
<td>Low</td>
<td>May be necessary</td>
</tr>
<tr>
<td>2</td>
<td>4-7</td>
<td>Medium</td>
<td>Necessary</td>
</tr>
<tr>
<td>3</td>
<td>8-10</td>
<td>High</td>
<td>Necessary soon</td>
</tr>
<tr>
<td>4</td>
<td>11-15</td>
<td>Very high</td>
<td>Necessary now</td>
</tr>
</tbody>
</table>

The REBA method consists of two main groups: group A that includes the torso, neck, and legs; group B, which includes the upper arm, lower arm, and wrist. The postures in both groups are angularly observed and scored to obtain table A and table B. Then, the A score and the B score are obtained by adding force and the workload scores of each task. The C score is obtained from the combination of A and B scores. Finally, the REBA
score is obtained by adding the activation score to the C score. The calculation method of the REBA score is shown in Figure 3.

**Figure 3**: REBA score calculation
(Figure 3 belongs to the authors)

4. An application for two-sided assembly line balancing with ergonomic constraint

4.1. Method definitions

In this study, it was aimed to minimize the number of stations in the two-sided ALB problems with ergonomic constraint. The tasks are assigned to stations in a balanced way, taking into account the cycle time and precedence diagram. However, assigning tasks to stations without exceeding the cycle time does not mean that the workloads are balanced in terms of physical exposure. The tasks with the same processing times may have different physical exposure. Therefore, when determining the minimum number of stations, the workload should be considered in terms of both time and ergonomic risk level.

In this study, by including the REBA scores of the tasks, type-1 two-sided ALB problem with the GA meta-heuristic method was solved. Classical GA structure is used in the proposed study. Values commonly used in the literature were used as parameter values. Population size: 100, number of generations: 500, crossover rate: 0.8 and mutation rate: 0.2 were used. No parameter optimization has been done. Constraints and assumptions considered in the two-sided ALB problem that takes ergonomic factors into account are as follows:

- Task durations are known and constant.
- The cycle time is known and constant.
• The REBA score of each task is known and constant.
• Each task can be assigned to only one station of mated station.
• There are no tasks that are not assigned to stations.
• The precedence diagram of tasks is known.
• All tasks must be assigned sequentially according to the precedence diagram.
• The total duration of the tasks assigned to any station cannot exceed the cycle time.
• No work-in-process inventory is allowed.

4.2. Fitness function

The fitness function $OTP$ (Eq.1) consists of four main objectives to compare the performance of the proposed method with other methods. The M value is multiplied by 100 as the primary objective is to minimize the number of mated stations in the proposed model. Since the total number of stations is minimized as a secondary objective, the N value is multiplied by 10. After the first two objectives are prioritized, the other two goals affect the total objective function value.

The third objective (Eq.2) calculates the performance of the assembly line in terms of time. The fourth objective (Eq. 3) calculates the ergonomic risk level balance of the stations.

$$OTP = 100 * M + 10 * N + W_{TP} * TP + W_{RLP} * RLP,$$

$$TP = \sqrt{\frac{\sum_{i=1}^{N}(C-S_i)^2}{N}},$$ (2)

$$RLP = \sqrt{\frac{\sum_{i=1}^{N}(RL_{mean}-RL_i)^2}{N}},$$ (3)

$$REBA_{total} = \sum_{j=1}^{T} b_j,$$ (4)

$$REBA_{mean} = \frac{REBA_{total}}{n_{\text{min}}},$$ (5)

$$n_{\text{min}} = \frac{\sum_{j=1}^{T} t_j}{C},$$ (6)

where, $OTP$, which is the fitness function, is the overall total performance. $M$ is the number of mated stations. $W_{TP}$ is the weight of time performance, and $W_{RLP}$ is the weight of risk level performance. $TP$ is the time performance. $C$ is the cycle time. $S_i$ is the total duration of the station $i$ ($i = 1, \ldots, N$). $N$ is the number of the assigned station. $RLP$ is the
ergonomic risk level performance. $RL_{\text{mean}}$ is the mean ergonomic risk level of the stations. $RL_{\text{mean}}$ is the ergonomic risk level of station $i$. $b_j$ is the REBA score of task $j$ ($j = 1, ..., T$). $REBA_{\text{total}}$ is the total REBA score of all tasks. $REBA_{\text{mean}}$ is the mean REBA score for the tasks. $n_{\text{min}}$ is the required minimum number of stations for the assembly line. $t_j$ is the processing time of the task $j$.

4.3. Example application

The proposed method was applied to three different test problems of two-sided ALB with the 12, 16, and 24 tasks used by Kim et al. (Kim, Song, Kim, 2009). The Borland Delphi 7 is used as coding platform of proposed GA approach. A personal computer with an Intel i-7 with 1.8-GHz processor and 8-GB RAM is used for test process. The proposed GA algorithm has solved 5 times for each of the test problems for a certain number of cycle times, and the best solutions and average CPU times are reported.

Analyzes were made according to the ergonomic risk levels determined by the REBA method. REBA score values were generated for the related tasks. The precedence diagrams for each assembly line are shown in Figure 4a, 4b, and 4c, respectively. The processing times and REBA scores for each task of each assembly line are shown in Table 2a, 2b, and 2c, respectively.

Table 2: The task duration and REBA scores for the example application

(a)

<table>
<thead>
<tr>
<th>Task No</th>
<th>Line Side</th>
<th>Task Duration (sec.)</th>
<th>REBA Score</th>
<th>Task No</th>
<th>Line Side</th>
<th>Task Duration (sec.)</th>
<th>REBA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Left (L)</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>E</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Right (R)</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>R</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Either (E)</td>
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<tr>
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<tr>
<td>5</td>
<td>E</td>
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<td>R</td>
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</tbody>
</table>

(b)

<table>
<thead>
<tr>
<th>Task No</th>
<th>Line Side</th>
<th>Task Duration (sec.)</th>
<th>REBA Score</th>
<th>Task No</th>
<th>Line Side</th>
<th>Task Duration (sec.)</th>
<th>REBA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E</td>
<td>6</td>
<td>4</td>
<td>9</td>
<td>R</td>
<td>5</td>
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<td>6</td>
</tr>
<tr>
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<td>E</td>
<td>9</td>
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<td>12</td>
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<td>4</td>
<td>3</td>
<td>16</td>
<td>E</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
The assembly line with 24 tasks was selected for the illustrative example. C was assumed as 24 seconds. The REBA scores of the tasks are between 1-7. According to the information provided:

\[ n_{\text{min}} = \frac{\sum_{j=1}^{T} t_j}{c} = \frac{140}{24} = 5.85 \equiv 6, \]

\[ \text{REBA}_{\text{total}} = \sum_{j=1}^{T} b_j = 93, \]

\[ \text{REBA}_{\text{mean}} = \frac{\text{REBA}_{\text{total}}}{n_{\text{min}}} = \frac{93}{6} = 15.5 \]

The problem was solved by including the above information in the proposed method. Two-sided assembly line solution without and with considering REBA scores was shown in Table 3 and Table 4, respectively.

**Table 3:** The solution without the REBA constraint

<table>
<thead>
<tr>
<th>Task No</th>
<th>Line Side</th>
<th>Task Duration (sec.)</th>
<th>REBA Score</th>
<th>Task No</th>
<th>Line Side</th>
<th>Task Duration (sec.)</th>
<th>REBA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L</td>
<td>3</td>
<td>4</td>
<td>13</td>
<td>E</td>
<td>3</td>
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<td>7</td>
<td>4</td>
<td>14</td>
<td>R</td>
<td>9</td>
<td>4</td>
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<tr>
<td>3</td>
<td>R</td>
<td>7</td>
<td>3</td>
<td>15</td>
<td>R</td>
<td>5</td>
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<td>5</td>
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<td>L</td>
<td>9</td>
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</tr>
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<td>L</td>
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<td>17</td>
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</tr>
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<td>6</td>
<td>E</td>
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<td>2</td>
<td>18</td>
<td>E</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>R</td>
<td>4</td>
<td>5</td>
<td>19</td>
<td>E</td>
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<td>3</td>
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<td>8</td>
<td>E</td>
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<td>20</td>
<td>R</td>
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<td>9</td>
<td>E</td>
<td>6</td>
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<td>L</td>
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</tr>
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<td>10</td>
<td>E</td>
<td>4</td>
<td>5</td>
<td>22</td>
<td>E</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>L</td>
<td>4</td>
<td>6</td>
<td>23</td>
<td>R</td>
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<td>5</td>
</tr>
<tr>
<td>12</td>
<td>L</td>
<td>3</td>
<td>7</td>
<td>24</td>
<td>E</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Left Station No</th>
<th>Task</th>
<th>REBA Score</th>
<th>Station Time</th>
<th>Right Station No</th>
<th>Task</th>
<th>REBA Score</th>
<th>Station Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>1,2,11,16</td>
<td>15</td>
<td>23</td>
<td>R1</td>
<td>3,4,6,7,10</td>
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<td>23</td>
</tr>
<tr>
<td>L2</td>
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<td>23</td>
<td>R2</td>
<td>9,14,19</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>L3</td>
<td>18,22,24</td>
<td>11</td>
<td>24</td>
<td>R3</td>
<td>15,20,23</td>
<td>11</td>
<td>23</td>
</tr>
</tbody>
</table>
As shown in Table 3 when the ergonomics constraint is not included, REBA scores seem unbalanced even if station durations are balanced. While station L2 has 26 REBA scores, R1 and R2 have 21 and 9 REBA scores. The ergonomic workload difference between right and left stations is highly unbalanced. As shown in Table 4, REBA scores are more balanced. While $W_{TP} = 1$, $W_{RLP} = 0$ and $W_{TP} = 0.5$, $W_{RLP} = 0.5$, the comparison results for test problems with 12, 16, and 24 tasks were shown in Table 5. We can see that the ergonomic risk scores of the stations are considerably balanced and reduced. Fitness function is an acceptable level.

### Table 4: The solution with the REBA constraint

<table>
<thead>
<tr>
<th>Left Station No</th>
<th>Task</th>
<th>REBA Score</th>
<th>Station Time</th>
<th>Right Station No</th>
<th>Task</th>
<th>REBA Score</th>
<th>Station Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>1,2,5,9,13</td>
<td>17</td>
<td>23</td>
<td>R1</td>
<td>3,4,6,7,8</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>L2</td>
<td>11,12,16,21</td>
<td>18</td>
<td>24</td>
<td>R2</td>
<td>10,14,17,19</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>L3</td>
<td>18,22,24</td>
<td>11</td>
<td>24</td>
<td>R3</td>
<td>15,20,23</td>
<td>11</td>
<td>23</td>
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</table>

### Table 5: Comparison results for the test problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cycle Time</th>
<th>$W_{TP} = 1, W_{RLP} = 0$</th>
<th>$W_{TP} = 0.5, W_{RLP} = 0.5$</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>NP NS TP RLP Fitness CPU</td>
<td>NP NS TP RLP Fitness CPU</td>
<td></td>
</tr>
<tr>
<td>P12</td>
<td>5 3 6 1,0801 3,0011 361,0801 &lt;1</td>
<td>5 3 6 1,0801 1,5297 361,3049 &lt;1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 3 5 1,1832 3,7629 351,1832 &lt;1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 2 4 0,866 2,586 240,866 &lt;1</td>
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<td></td>
</tr>
<tr>
<td>P16</td>
<td>16 3 6 2,9439 2,8674 362,9439 &lt;1</td>
<td>16 3 6 2,9439 2,8674 362,9439 &lt;1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19 3 5 3,8729 2,8705 353,8729 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 2 4 1,8708 3,7749 241,8708 &lt;1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P24</td>
<td>24 3 6 0,8164 6,1032 360,8164 5</td>
<td>24 3 6 0,8164 6,1032 360,8164 5</td>
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<td>30 3 5 2,0976 6,6813 352,0976 2</td>
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<td></td>
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<td></td>
<td>40 2 4 5 4,5483 245 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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5. Conclusion

In assembly lines, it is desired by companies to produce more products. Therefore, the ALB problem is solved only according to the processing times of the tasks. However, this perspective is a short-term approach in the real-life. Ignoring the workforce can lead to long-term productivity decline and occupational diseases. Therefore, ergonomic factors should be included in ALB problems.

In this study, a solution method was presented for solving the two-sided ALB problem with the ergonomic constraint. In the study using the GA meta-heuristic method, not only the basic constraints of the assembly line such as precedence diagram and cycle time but also the ergonomic risk factors of each task were taken into account. To compare the accuracy of the proposed method, the type-1 two-sided ALB problems were solved with and without the ergonomic constraint. REBA scores were taken into account for ergonomic risk factors. According to the results, the proposed method has shown good performance. We can see that the ergonomic risk scores of the stations are considerably balanced and reduced. Fitness function is an acceptable level.

References


INVESTIGATION OF CONSUMER PROBLEMS RELATED TO FURNITURE UNDER THE CONSUMER LAW

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1. Introduction

Consumer; refers to a natural or legal person acting for commercial or non-professional purposes. The consumer transaction; It refers to all kinds of contracts and legal transactions established between real or legal persons and consumers acting in the goods or services markets for commercial or professional purposes, including works, transportation, brokerage, insurance, power of attorney, banking and similar contracts (6502 on Consumer Protection, ).

The influential factor in consumer markets is the “consumer.” In order for a person to be considered as a consumer in terms of marketing, he / she needs to have a need to be satisfied, he / she needs to have an income to spend and the willingness to spend this income (Akyuz, 2006).

When consumers choose from a large number of products and services, they prefer those that give them the highest benefit at the lowest cost. When making this choice, they give priority to products that are recognized and known by everyone (Demircioglu, 2012). Therefore, when producing goods and services, firms have to take into account the demands and needs of consumers and the characteristics of consumer behavior (Zengin, 2009).

Nowadays, consumer rights increases because of the increased consumption. In addition to effective laws and regulations protected consumer enter in force. This regulations mostly protect consumer against seller, producer, manufacturer and importer. Consumer and liables usually conflict with each other in furniture sectors. Especially consumers need to learn their rights about defective good (Elvan, 2018).

The Consumer Law was enacted to protect the consumer. If the product or service that is subject to the defect in 6502 is purchased for commercial or non-professional purposes, regardless of whether the party is a natural or legal person, the law no. 6502 is applied to the dispute.

The purpose of Law No. 6502; In the first article, in accordance with the public interest to protect the health and safety and economic interests of the consumer, compensation of damages, environmental hazards to protect the consumer, enlightening and awareness-raising measures to take measures to encourage consumers to protect themselves and encourage the
establishment of policies on voluntary organizations in these issues are regulated (6502 on Consumer Protection, 2013).

Any disputes that may arise when the product or service is purchased for commercial or professional purposes shall be resolved by the relevant articles of the Turkish Code of Obligations or the Turkish Commercial Code. Law No. 6502 is designed to protect consumers who are weak against the seller. The regulations in Law No. 6502 are generally in favor of the consumer due to the purpose of the law. However, there is no such privilege in the provisions of the Code of Obligations and the Commercial Code concerning defective goods (Erkan, 2015).

When the studies in the literature are examined, it is seen that there are not enough studies about the problems experienced with the furniture. In the study called "Determination of Complaints of Consumers About Upholstered Furniture"; the problems experienced by the consumers in the sofa sets are as follows; fabric aging, sounding and opening from the junction, the lowest complaint was found to be dyeing errors. It has been determined that the reason for changing the upholstered furniture of the consumers is the fact that the furniture expires. House change and marriage were seen to follow this (Arslan vd., 2010).

In this study, the lawsuits filed by the consumers in Izmir by applying to the Izmir Consumer Courts regarding the problems they face with furniture were examined. Complaints of consumers about products, expert reports on complaints and provisions given by the court were tried to be evaluated. In addition, it has been investigated which cases can be opened by consumers regarding furniture defects.

2. Methods and materials

The research covers the problems experienced by the consumers living in Izmir regarding the furniture they buy. In this context; the complaint of consumers who applied to the Izmir Consumer Court regarding furniture was examined. In this review; consumer complaints, expert reports on court products and court decisions are evaluated within the scope of the Law No. 6502 on Consumer Protection. In addition, it has been investigated which cases can be opened in which courts regarding the problems experienced by the consumers about the furniture they have purchased.

The study area was identified as consumers in Izmir. Since the number of consumers is very high, the sample was made. The data obtained were evaluated with the help of cross tables and interpreted.

3. Findings

In this chapter; in case of defective goods or services, the rights of consumers and the cases that consumers can bring about defective goods
were investigated. In addition, the lawsuits that were brought to the consumer court regarding furniture were examined.

3.1. Issues related to defective goods under the consumer law

Within the scope of consumer law; that the goods or services purchased by consumers are defective, liability for defective goods, burden of proof, the issues related to optional rights and the statute of limitations are given below.

Defective goods; Defective goods, goods delivered to the consumer at the time agreed by the parties to the sample or model does not conform to or objectively possess the characteristics that should have the properties that are contrary to the contract.

Liability for defective goods; the seller is obliged to deliver the goods to the consumer in accordance with the sales contract.

The burden of proof; Any defects that occur within 6 months of the delivery date are deemed to exist on the date of delivery. In this case, the proof of defective goods belong to the seller. On the defective goods to be put on sale, a label with explanatory information regarding the defect of the goods should be put on the packaging by the manufacturer, importer or seller. This information must be clearly displayed on the invoice, receipt or sales document given to the consumer.

Consumer's elective rights; In case of defective goods the consumer has the following rights.

- Return of the contract by declaring that it is ready to return sold person,
- Sold and ask for a discount on the sale price at the rate of shame,
- Requesting the repair of the sold person free of charge, with all costs at the seller, unless it requires excessive costs,
- If there is a possibility, it may use one of the elective rights to request that the sale be replaced with an undamaged amount. The seller is obliged to fulfill this demand which is preferred by the consumer.

Time out; The liability for defective goods is subject to a 2-year time-limit from the date of delivery of the goods to the consumer, even if the defect arises later. The provisions of statute of limitations shall not apply if it is concealed by shame, severe defect or fraud.

3.2. Files that consumers can bring before the court under consumer law

Within the scope of consumer law; consumers may file various lawsuits concerning the goods or services they purchase. These cases are given below.
Lawsuits Due to Defective Goods and Services; Lawsuits filed by consumers are usually related to defective goods and services.

Negative declaratory actions and action of depth; In practice, it is seen that consumers have filed negative clearance proceedings in consumer courts in order to determine that they do not have any debts to the seller or provider.

Adaptation Cases; Adaptation cases filed by consumers are frequently encountered. Adaptation is the fact that the conditions that existed when the contract was established do not match the conditions that arise later, the conditions change significantly, and are adapted to the situations.

Liability Cases for Failure to Perform; These are cases that are often filed by the consumer by applying to the Arbitration Committee for Consumer Problems or consumer courts because the seller or provider does not perform the goods and services to the consumer at all or as required.

Cases Related to the Contracts in the Consumer Law; Various lawsuits are filed against the disputes related to the campaign sales, door sales, installment sales, package tours and circuit holiday agreements regulated in the Law on Consumer Protection.

Defective Series Cases; If a series of goods offered for sale is defective, the sale of defective series goods can be stopped and the sale of the owner for the purpose of collection can be sued by consumers.

Cases Regarding Goods That Look Different From Their Existence; Although it is not a food product, the appearance, smell, and packaging that appear to be different from the fact that they are mixed with food products that endanger the health of consumers who buy the goods that are opened due to the material and moral damages suffered.

Some lawsuits were filed in Izmir Consumer Court regarding the problems experienced by consumers regarding furniture. In these cases, consumers' complaints about furniture were examined. In addition, the expert reports taken by the court regarding these complaints and the decisions of the court are determined and given below.

Case 1: The plaintiff stated in his petition; that the bedroom suite he had purchased from the defendant firm had short-term defects, upon which he applied to the Presidency of the Arbitration Committee for Consumer Problems in Izmir and that the request was accepted by the delegation. However, it was seen that the decision was not binding since the price of the goods subject to the case was on the decision-making authority of the committee and therefore he had to file a lawsuit and requested that the suite be taken back and the refund paid.

Expert report; it was found that the coatings used in the production of furniture had blistering and shrinkage defects caused by press error, that
the massifs used on the edges and crowns of the furniture were separated from the joints, the backrest of the cabinet was separated from the body and the drawers of the dressing table were not working. Images of the problems in the furniture subject to the case are given in Figure 1.

![Image of furniture problems]

**Fig. 1 Images of the problems in the furniture subject to the case**

*Provision;* in accordance with the Consumer Law, the court found that the bedroom suite purchased was defective and therefore decided to accept the case, and also decided to return the product purchased from the respondent company to the defendant and give the plaintiff the cost of the furniture.

**Case 2:** The *plaintiff in the petition;* when he sees that there is an error in the fabric, informed the company of the situation, he said that the officer from the company took the seat by examining. The new seat was replaced by the company, however, the plaintiff; noticed that the seat was used, reported the complaint to the store authorities, the company said the products couldn’t be changed, it was observed that the plaintiff requested the return of the amount paid by the seating group to the defendant and the suspension of other payments.

*Expert report;* it was found that there were traces in the fabric of the furniture subject to the case, that the bolt connections were not made in the crates, that the defects in the product were not due to use and that they were originated from design and manufacturing. Images of the problems in the furniture subject to the case are given in Figure 2.
In accordance with the Consumer Law, it was seen that the court decided that the seat set was defective and therefore decided the acceptance of the case, the return of the product to the defendant and the price to be given to the plaintiff with the legal interest starting from the date of return of the goods to the defendant.

Case 3: In the plaintiff’s petition; it was stated that the sofa set purchased did not come in the color ordered, the corner part of the seat was low in height, there was pot in the seat fabric, there were scratches on the shelves of the TV unit, the light of the shelf was not lit and the TV unit was bent. It was observed that the plaintiff requested the return of the price of the products.

Expert report; that the corner seat of the corner seat set is clothed on the fabric, that the corner piece of the set is not the same height as the other parts, that the set is not of the desired color, that the bending of the top table of the wall unit, that there are scratches on the shelves during the assembly of the products, that the lamp of the top shelf is not lit production. It was been found that these problems are not caused by the user but by design and production. Images of the problems in the furniture subject to the case are given in Figure 3.

In accordance with the Consumer Law, it is seen that the products are hidden defective, therefore, the case is accepted, the furniture is returned to the defendant and the price is returned to the plaintiff with the legal interest to be processed as of the date of return.

Case 4: In the plaintiff’s petition; the defendant stated that he applied to the Consumer Arbitration Committee due to the defects of the dining room suite and the kitchen table he received from the company and that the firm
did not implement this decision although the committee decided to return the two tables. It was seen that the furniture was sold as a set, if the tables were returned, the set would deteriorate and therefore demanded the return of all the furniture.

*Expert report;* the drawers of the console do not work properly, the lower glass of the spoon is defective, the upper table of the table is not approaching, the legs of the chairs are yawning, the upper table of the other table is not approaching, there are wrong holes under the table top, the metal legs are rusting and it has been found that these defects are not caused by the user. Images of the problems in the furniture subject to the case are given in Figure 4.

![Images of the problems in the furniture subject to the case](image1.png)

*Fig. 4 Images of the problems in the furniture subject to the case*

*Provision;* in accordance with the Consumer Law, it was seen that the court decided to accept the case partially and to return the cost of the purchased dining room set, kitchen table and chairs to the defendant and to give the plaintiff with the legal interest to be processed from the date of return.

*Case 5: In the plaintiff's petition;* it was seen that there was a manufacturing error in the seat set purchased, that the surfaces of the seats were completely peeled, that they wanted to change the seat set, but that neither the grievance was compensated nor that the price was paid and plaintiff demanded the return of the price paid.

*Expert report;* it was seen that the artificial leather used in the armrests of the seats was peeled due to the poor quality and the wear resistance was weak, the middle record used in the single seats disturbed the seat, and these problems were not caused by the user but were determined to be of
design and production origin. Images of the problems in the furniture subject to the case are given in Figure 5.

Fig. 5 Images of the problems in the furniture subject to the case

_Provision_; in accordance with the Consumer Law, the provision of the sofa set purchased was hidden defective, therefore the acceptance of the case, the return of the furniture by the plaintiff to the defendant and the price of the claim from the defendant with the legal interest from the date of the claim was given to the plaintiff.

Case 6: _In the plaintiff's petition_; the defendant stated that the triple seat he had purchased from the company was torn and that the two seats had to be boxed and delivered without a base. Also, one of the chairs had broken feet, the glass of the TV stand was missing, it was observed that the plaintiff requested the return of the price of the products.

_Expert report_; it was found that there was swelling on the upper table of the dining table, color difference on the legs, the table was shaken too much, the sponges of the chair collapsed, the glass of the TV table was not installed and the interior of the middle table was not painted. Images of the problems in the furniture subject to the case are given in Figure 6.

Fig. 6 Images of the problems in the furniture subject to the case

_Provision_; in accordance with the Consumer Law, the provision of the furniture purchased was hidden defective, therefore the acceptance of the case, the return of the furniture by the plaintiff to the defendant and the price of the claim from the defendant with the legal interest from the date of the claim was given to the plaintiff.

Case 7: _In the plaintiff's petition_; he stated that the sofa set was not as seen in the store, that the seats of the single seats were changed because the feet came wrong, and that the service for the problems in the products
went without doing anything. It was observed that the plaintiff requested the return of the price of the products.

*Expert report:* found that the upper part of the sofa set was malformed, that the seams of the seat fabric were not made properly and that there were pots, that there was a sewing error and insufficient filling material in the cushions of the product. Images of the problems in the furniture subject to the case are given in Figure 7.

Fig. 7 Images of the problems in the furniture subject to the case

*Provision:* in accordance with the Consumer Law, purchased furniture is hidden defective, therefore, the case of the acceptance of the case, the team returned to the defendant to return the amount of the date of the return of the legal interest will be given to the plaintiff decides.

Case 8: *In the plaintiff's petition:* stated that there was a problem during the warranty period in the sofa set and that the problem was not solved although the product was taken to the service 5 times by the defendant. It was observed that the plaintiff had requested that the problems in the seats be remedied or compensated.

*Expert report:* the subject of the case of dual and single seats section of the sponge in the form is defective, seat fabric stitches are dismantled. There are also pots in the seat fabric, it was found that the defect in the product was not user-sourced but design and production-sourced. Images of the problems in the furniture subject to the case are given in Figure 8.

Fig. 8 Images of the problems in the furniture subject to the case

*Provision:* in accordance with the Consumer Law, the court decided that the seat set was hidden defective, so the case was accepted and the defendant repaired the seat set failure free of charge.
Case 9: In the plaintiff’s petition; the plaintiff stated that he ordered the young room team to the firm, but that the child room team was sent to him, that the problems arising from the production started to emerge in the furniture and that the victimization was not resolved despite calling the company repeatedly. It was observed that the plaintiff requested the refund of the product price.

Expert report; it has been found that the middle door of the wardrobe is not closed completely, one of the handles used in the closure is broken, the dimensions of the parts of the wardrobe to be hung are made smaller than the standard, the defect in the product is not user-sourced but it is originated from design and production. Images of the problems in the furniture subject to the case are given in Figure 9.

Fig. 9 Images of the problems in the furniture subject to the case

Provision; in accordance with the Consumer Law, it was seen that the young room team decided to accept the case, to give the defendant the cabinet, desk, headboard and nightstand to the defendant and to refund the costs.

Case 10: In the plaintiff’s petition; when the furniture was delivered, there were deficiencies in the stones, there were errors in the assembly and there were blisters in the tables and chairs. It was seen that the service sent by the defendant caused damage to the furniture and the claimant requested the return of the price paid for the products.

Expert report; that the doors of the wardrobe are not working properly, one of the handles is broken, the decorative lath of the wardrobe is broken, there are scratches in the drawers inside the wardrobe, the top plate is broken, the mirror frame is different from each other, the commode drawers do not work properly. It was found that there was deformation on the corner of the base of the base, scratches on the left cover of the living unit, fractures on the upper cabinet door, the doors were difficult to open, the table was shaken, there were cracks and fractures on the feet of the chairs, and these problems were caused by manufacturing. Images of the problems in the furniture subject to the case are given in Figure 10.
Fig. 10 Images of the problems in the furniture subject to the case

*Provision;* the court in accordance with the Consumer Law; that the furniture was hidden defective, so the case was partly adopted. In addition, the court ordered the return of the bedroom set, TV unit, table, chairs and bed (excluding the base) to the defendant and the legal interest to be paid from the defendant together with the legal interest to be filed from the defendant.

Case 11: *In the plaintiff's petition;* the plaintiff stated that the product he had purchased was replaced with another product and the cupboards were defective. The plaintiff further stated that the defendant had filed a lawsuit against him for the notes he had signed. He requested that the furniture be defective and that the defendant had no debts.

*Expert report;* she determined that the size of the wardrobe was smaller than the standard, that the screws used cracked some of the parts, there were fractures on the sides of the wardrobe and there were openings on the edge bands. It also found that the handles of the cupboard were not fastened well and that the problems were not caused by the user but by the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 11.

Fig. 11 Images of the problems in the furniture subject to the case
Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 1: *In the plaintiff's petition;* the plaintiff stated that there were cracks in the legs of the green sofa from the two sofa sets he bought, that there were ugly images due to the assembly and that the bergers were different from those specified in the contract. Therefore; the plaintiff stated that he had sent a strike to pay the price of his products and that the respondent company had not received the product. The claimant requested and sought the return of the price paid by himself.

*Expert report;* he found that there were cracks and openings on the wooden legs of the sofa set, that one of the growing trio of the sofa set did not stand in line, that the bergers were different from those specified in the contract, and that these problems in the products were not caused by the user but were caused by the design and production of the products. Images of the problems in the furniture subject to the case are given in Figure 12.

![Fig. 12 Images of the problems in the furniture subject to the case](image)

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 13: *The plaintiff summarized in the petition;* sales contract with the living room set, table, chair, bench, wall unit, bedroom set, plinth, bed, coffee table and gift zigon coffee table as a gift. Of these products, wall unit, bedroom and middle table are delivered problematically, other goods are not delivered, the plaintiff informed the firm that he did not accept the goods as such and demanded that the goods be taken back and the refund of the price paid.

*Expert report;* stated that the drawer rails of the bedside cabinet elements of the bedroom set were not installed, there were scratches and touch-ups on various parts of the bedstead, dresser and wardrobe, the
bedroom set was not installed, the sofa set, table and 4 chairs were never delivered. It has been determined that the problems in the products are not caused by the user but the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 13.

Fig. 13 Images of the problems in the furniture subject to the case

Provision; the court under the Consumer Law; It was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 14: The plaintiff summarized in the petition; that they purchased a sofa set, that the product was problematic, that they called the defendant company, that the service came, that the service offered repair or replacement, that he did not accept it. It was observed that the plaintiff requested the defective sofa set to be taken back by the respondent company and the decision to return the product price.

Expert report; he found that the right armrests of the single seats did not fully fit into the body, that the triple armlets were shaken because the armrests were not connected to the body well, that the triple seats opened in the armrests, and that the problems were not caused by the user, but the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 14.

Fig. 14 Images of the problems in the furniture subject to the case

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was
given to the plaintiff together with the legal interest to be processed from the date of return.

Case 15: The plaintiff summarized in the petition; tears and disassemblies occurred on the edge of the sofa set purchased, reported the problem to the company. It was seen that the seat fabrics were patched by the service, the originality of the seats deteriorated and the seats were requested to be replaced.

Expert report; there were tears in the seat cushions and armrests of the double and triple seats, although the service was provided 3 times, the problem was not solved, it is determined that the problems are not caused by the user but the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 15.

![Fig. 15 Images of the problems in the furniture subject to the case](image)

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 16: In the plaintiff's petition; the plaintiff stated that the furniture he bought from the respondent company was defective, delivered to the store to change the upholstery of the products, and that the products from repair were worse than before. He stated that there are stitches and glue marks on the fabric of the products. It was observed that the plaintiff requested the defective sofa set to be taken back by the respondent company and the decision to return the product price.

Expert report; he stated that there were tears in the seats and backrest of the triple seats and that there were glues and stains on the seats. He stated that the originality of the product is deteriorated because the seams of the upholstery fabrics are not made properly and that there are pots in the seating fabric of the chair. He also stated that there was a collapse of the single seat armrests. It was found that the problems aren't caused by the user, but from the design and manufacture of the products. Images of the problems in the furniture subject to the case are given in Figure 16.
Case 17: *The plaintiff stated in the petition*; that there were problems in the sofa set he bought, that the product was sent to the service and that the service said the damage was caused by the user. Plaintiff applied to Consumer Arbitration Committee for problems, the arbitral tribunal deemed the products defective and stated that the problems were not of consumer origin. It was observed that the plaintiff requested the return of the defective goods by the defendant company.

*Expert report*; he found that the seat of the sofa set was malformed, that there was bending of the metal profile of the seats, and that the problems were not caused by the user but by the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 17.

Case 18: *In the plaintiff’s petition*; the plaintiff purchased the sofa set and the chairs were defective, and the plaintiff stated that he had been sent an exhibition product. It was observed that the plaintiff requested the return of the defective goods by the defendant company.

*Expert report*; there were tears in the armrests of the sofa set, there were openings in the lower fabrics of the seats, the backrest heights of the chairs
were different from each other and there were pots in the seat fabrics. He also found that the sofa set was an exhibition product. It is determined that the problems are not caused by the user but the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 18.

![Images of the problems in the furniture subject to the case](image)

Fig. 18 Images of the problems in the furniture subject to the case

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 19: In the plaintiff's petition; it was stated that the bed of the bedroom set that the plaintiff bought from the defendant company collapsed and there was a strain on the cot iron. He stated that there were faults in the closet doors and dresser. It was observed that the plaintiff requested the defective sofa set to be taken back by the respondent company and the decision to return the product price.

Expert report; the doors of the wardrobe are not working properly and the bottom of the wardrobe is scratched. He stated that the headboard was not assembled well, the bed frame was distorted and the dresser mirror was not installed well. It has been determined that the problems are not caused by the user, but from the design and manufacture of the products. Images of the problems in the furniture subject to the case are given in Figure 19.

![Images of the problems in the furniture subject to the case](image)

Fig. 19 Images of the problems in the furniture subject to the case

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.
Case 20: In the plaintiff’s petition; the plaintiff stated that he had bought a bedroom set from the defendant, but that the product was defective. The plaintiff stated that he had applied to the Consumer Arbitration Committee for problems with the product. He stated that although the arbitral tribunal decided in favor of the plaintiff, he could not agree with the firm. It was observed that the plaintiff requested the defective sofa set to be taken back by the respondent company and the decision to return the product price.

Expert report; in the expert report; he stated that the drawers of the wardrobe, the trouser apparatus and the lid mechanism were not working properly. He also stated that the assemblies of the cupboard were not made well and the dresser and bedside drawers did not work properly. The base pistons are defective, it has found that the problems are not due to the user but from the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 20.

![Fig. 20 Images of the problems in the furniture subject to the case](image)

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 21: In the plaintiff’s petition; the plaintiff stated that the young room set he bought from the defendant company is defective. It was observed that the plaintiff requested the defective furniture to be taken back by the respondent company and the decision to return the product price.

Expert report; he stated that the doors of the wardrobe were opened from the edges, some of the handles were broken and some legs of the desk were broken. He also stated that the hinges of one of the doors were defective. It was found that the problems are not due to the user but from the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 21.
Fig. 21 Images of the problems in the furniture subject to the case

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

Case 22: In the plaintiff's petition; that the plaintiff had a problem of spring emergence in the seat team and called for service due to spring emergence three times; then the product was taken to the factory. The applicant claimed that the product had been repaired and brought back, although he had requested the replacement of the product. He noted that the height of the sofa increased about 1.5cm after repair. It was observed that the plaintiff requested the defective furniture to be taken back by the respondent company and the decision to return the product price.

Expert report; it was stated that when the seat was opened to lie down, the backrest remained higher than the seat, which distorted the general form of the product. In addition, the wear of the surface fabric of the product has been expressed. It is determined that the problems are not caused by the user but the design and manufacture of the product. Images of the problems in the furniture subject to the case are given in Figure 22.

Fig. 22 Images of the problems in the furniture subject to the case

Provision; the court under the Consumer Law; it was decided that the furniture was defective, therefore the case was accepted, the furniture was taken from the plaintiff and returned to the defendant and the price was given to the plaintiff together with the legal interest to be processed from the date of return.

4. Conclusions

In this study, the lawsuits filed by the consumers in Izmir by applying to the Izmir Consumer Courts regarding the problems they face with
furniture were examined. Complaints of consumers about products, expert reports on complaints and provisions given by the court were tried to be evaluated. In addition, it has been investigated which cases can be opened by consumers regarding the problems they have experienced.

When the lawsuits filed in the consumer court regarding furniture are examined; as a result of the research, it was understood that when the products that furniture consumers like to buy from the stores were delivered to them, various defects of the products appeared. This product defects; collapse of the seating groups, sound, fabric error, faulty upholstery and accessory connections. In panel furniture; cutting errors, use of poor quality materials, knocks and assembly errors were detected.

Most of the deficiencies in the products subject to sale are not user-sourced, but due to the lack of care during the design and manufacture of furniture.

Although consumers have many elective rights regarding the problems they have experienced, it was seen that they used the most free repair right before filing a lawsuit because they were misled by the authorized service. When they could not find a solution to their problems; it is seen that they prefer to use the right of withdrawal from the contract by declaring that they are ready to return the sold.

In the cases to be filed by the consumers regarding the furniture, they can apply to the District Consumer Arbitration Committee (under 6.920TL), Provincial Consumer Arbitration Committee (between 6.920TL - 10.390TL) and Consumer Courts (over 10.390TL) according to the price of the product subject to sale (Regulation of Consumer Arbitration Committees, 2019).

It has also been determined that consumers can also bring the following cases related to the products they purchase.

- Lawsuits filed for defective goods and services
- Adverse cases and claims
- Customization cases
- Liability due to non-performance
- Cases related to contracts regulated by consumer law
- Defective series of goods
- Cases concerning goods that look different from the ones they are

In the light of this study, in future studies, complaints of furniture consumers on product basis can be examined and problems can be identified in more detail. Within the scope of the identified problems,
manufacturing companies can increase customer satisfaction by performing the necessary studies. As a result, consumers’ problems can be solved without a lawsuit.

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References


1. Introduction

Design; it is defined as the work of forming the form of something in the mind and the form thought in this way. In the law numbered 6769; the appearance of the whole or part of the product or decoration on it resulting from the features such as line, shape, color, material or surface texture (URL-1, 2019).

Design is a concrete reflection from the creator’s inner world to the outer world. Accordingly, design is a concept that existed as a thought first. But this thought, this imagination involves a dynamics of forming. It is embodied as a thought that has taken shape in the process of formation. Accordingly, there is a thought and a designed object in every design phenomenon (Tunali, 2002). The product designs that are distinctive compared to their new and previous counterparts are registered or unregistered, but protected under unfair competition principles. As another area of industrial property protection, design protection has been extensively regulated in terms of registration and rights organization (Gunes, 2018).

Design is one of the most important elements in branding and growth. Companies are using design as a tool which expresses their product’s and service’s difference, functions and quality. They focused on growth through design. Companies, instead of trying to reduce costs, they now preferred to develop designer products for competition (Kafadar, 2009).

Furniture by definition; It is the general name given to portable goods that are used for laying places where people live, eat, work, and sleep (URL-2, 2019). Furniture can be defined as the single most effective product in human life, which takes place in all areas of daily life, provides the welfare of the individual or society, serves life, serves social and cultural needs, directly affects the quality of human life, which everyone uses and needs. In this sense, all kinds of improvements in furniture used in daily life directly contribute to the quality of life of people directly (Yuksel, 2019).

Furniture companies have given importance to design and registration processes in recent years. In the furniture industry, the level of competition among firms is very high. Therefore, businesses have to protect their designs. The increase in imitated designs and productions in
recent years puts the beneficiaries who have obtained the certificate of registration to material and moral damages. The Industrial Property Law aims to eliminate the grievances of designers and protect their rights.

Today, the right to design is one of the industrial rights that are used by manufacturers and users to make a difference between the products, as is the case in all areas, and which is becoming more and more common. Innovative designs are an important intellectual and industrial property value, as they provide enterprise success and competitive advantage in the market. The fact that companies create a new and distinctive design especially in durable consumer goods and thus stimulate the consumer's curiosity and purchase appetite brings competition success. In this area, imitation or unfair design registrations and actions to block competitors lead to lawsuits (Gunes, 2018).

In this context; Industrial Property Law No. 6769 was adopted on 22.12.2016 in our country. The purpose and scope of the law is to protect the rights related to brand, geographical mark, design, patent, utility model and traditional product names. In this way, to contribute to the realization of technological, economic and social progress. This law; trademark, geographical mark, design, patent, utility model and traditional product names applications, registration and post-registration procedures and violations of these rights includes legal and criminal sanctions (URL-1, 2019).

When the awareness of industrial and medium sized enterprises operating in the furniture industry about industrial property is examined; It was concluded that awareness should be increased especially in design protection in furniture industry. It is important that enterprises carry out design activities in their own units and employ designers for this purpose. The importance that will be given to the awareness of industrial property rights and designs in a more specific framework will be able to provide large profits to enterprises in both short and long term. Thus, our national furniture vision will have a significant impact on the international reputation to become more prestigious (Eraslan, 2018).

When the industrial design and registration process of a chair designed with systematic design method is examined; It has been determined that the use of systematic design method should be expanded and design activities can be more rational and efficient when this design method is applied. In order to shorten the systematic design process, a software developed for this design method was developed and it was stated that design activities could be realized in a more systematic and shorter time (Cetin, 2018).

In this study, the problems experienced by right owners about proprietary furniture designs are examined. In this context; the lawsuits
filed by the design owners by applying to the Izmir Intellectual Property Rights Court were examined. In line with the obtained data, problems were identified and solutions were proposed.

2. Methods and materials

The complaints of the right owners who applied to the Izmir Court of Intellectual Property Rights regarding furniture designs were examined. In this review; the complaints of the right owners, expert reports on the products subject to the complaint and court decisions are evaluated within the scope of Industrial Property Law 6769. In addition, it has been investigated which cases can be opened by the designers about the problems they have experienced with the furniture they designed.

As the study area, the lawsuits related to furniture opened in Izmir Intellectual Property Court were selected. As the number of lawsuits filed before Izmir Intellectual Industrial Rights Court was high, a sample was taken.

Also, in this study, the data of the Turkish Patent and Trademark Office (TP) were used.

3. Finding

Intellectual and Industrial Property Rights are evaluated in this section. In addition, the lawsuits related to industrial designs which were reflected to Izmir Intellectual Industrial Court were examined. Intellectual Property Rights are examined under 7 Headings. These are given below (Gunes, 2018).

- Patent and utility model
- Registered and unregistered designs
- Integrated circuit topography
- Breeder rights of new plant varieties
- Brands
- Geographic signs
- Copyright

In this study, only the registered and unregistered designs of the Intellectual Property Rights mentioned within the scope of this study have been tried to be evaluated.

3.1. The right and scope of design in the scope of intellectual property law

Design, is the appearance of the whole or part of the product or the ornament on it resulting from the characteristics such as line, shape,
shape, color, material or surface texture. If the design has been registered under the Law no. 6769, it shall be considered as a registered design and maintained. If the design was presented to the public for the first time in Turkey are maintained as proprietary design (URL-1, 2019).

The purpose and scope of the industrial property law; The purpose and scope of the law is to protect the rights related to brand, geographical mark, design, patent, utility model and traditional product names. In this way, to contribute to the realization of technological, economic and social progress. This law; trademark, geographical mark, design, patent, utility model and traditional product names applications, registration and post-registration procedures and violations of these rights includes legal and criminal sanctions (URL-1, 2019).

Innovation and distinctiveness; The design is protected under the rights granted by this law, provided that it is new and distinctive. If the same design has not been made available to the public prior to the date of application or priority, the design shall be considered new. For unregistered design, the design is considered to be new if it has not been made public anywhere in the world before the design was first made public. Designs are considered the same only if they differ in small details. The overall impression of a design on the informed user; if any design made available to the public differs from the overall impression created by the same user, it is considered to have a distinctive nature. In assessing the distinctive quality, the degree of freedom of choice that the designer has in developing the design is taken into account (URL-1, 2019).

Public disclosure; These activities include placing on the market by means of exhibition, sale, use, description, publication, promotion or similar purposes. Disclosure of the design to a third party on condition of confidentiality is not a public offering. If a design for which protection is sought is submitted to the public within twelve months of the application date or, if there is a priority request, by the designer or his successor or by a third party with the consent of such persons, or as a result of abuse of the relationship with the designer or his successors, and does not affect its distinctive nature (URL-1, 2019).

Scope of protection and non-protection; The owner may exercise his/her rights arising from this Law against indistinguishable designs compared to his/her design. The following conditions are outside the scope of protection (URL-1, 2019):

- Designs contrary to public order or general morality.
- Appearance characteristics required by the technical function of the product.
• Appearance characteristics of products that have to be manufactured in certain shapes and sizes for mechanical mounting or attachment of the product to which the design is used or applied to another product.

• State of the art designs, improper use of signs, badges, insignia or designations that have cost the public their religious, historical and cultural values and are not authorized by the relevant authorities.

The scope and limits of the design right: The design rights belong to the design owner. Third parties may not produce, market, sell, import, commercially use or hold for this purpose the design or design of the product to which the design is applied without the permission of the design owner, or propose to make a contract for the product to which this design or design is applied. The unregistered design gives the owner the right to block the acts referred to in the first paragraph only if the copy of the same protected design or, in general impression, cannot be distinguished. An independent design by a designer who is not reasonably able to know that the protected design was made available to the public before his or her design is not considered to have been copied from the protected design (URL-1, 2019).

Pre-emptive right and review: In order to benefit from the pre-emptive right, the designer must obtain a pre-emptive right certificate from Turkish Patent and Trademark Office (TP). If the applied design or the product to which the design is applied is displayed in the exhibition before the official opening date, the pre-emptive period starts from the date the product is put into the exhibition. The request for pre-emptive right shall be filed with the application. The documents related to this request shall be submitted to the Authority within three months following the application date. Otherwise, the request for pre-emptive right shall not be deemed to have been made. Design protection starts from the date of application deadline. Institution; Rejects any design registration requests that are not new to the design or product definition, which are contrary to public order or general morality, which have become public in respect of religious, historical and cultural values and that are not new, including improper use of signs, badges, insignia or naming by the relevant authorities (URL-1, 2019).

Registration and publication: The finalized and non-rejected application is registered in the registered design and published in the Bulletin. The register is public (URL-1, 2019).

Appeal to the decision and registration: Applicants may object to the decisions given in a reasoned and written form within two months of the notification date of the decision. Third parties may object in writing to the registration of the design certificate in accordance with Articles 55, 56 57
and 64 of the law within three months of the date of publication of the design registration (URL-1, 2019).

_Review of the objection:_ Objections are examined by the board. If the objection is accepted, the registration of the design is invalidated (URL-1, 2019).

_Design protection period and renewal:_ The protection period of the registered designs is 5 years from the date of application. This period can be extended to a total of twenty-five years by renewing in five-year periods. The protection period of unregistered designs is three years from the date on which the design for which protection is sought was first made public. The design right for non-renewable designs expires on the date that the protection period ends (URL-1, 2019).

_Entitlement:_ The right to design belongs to the designer or his successors and may be transferred. In case of any infringement of the rights arising from the design, it may bring legal action against third parties. (URL-1, 2019).

_Invalidity cases:_ The court shall decide that the design shall be null and void in the following cases: If it has been proven that it does not meet the requirements of Articles 55, 56, 57, it is covered by the fourth paragraph of Article 58 and the sixth paragraph of paragraph (c) of Article 64, the application is made in abusive manner and includes unauthorized use of an intellectual property right. The right to ownership is proved to belong to another person or persons. If the application date of a design of the same or similar nature disclosed later to the public is before the application date of a registered design (URL-1, 2019).

_Request for invalidity:_ The invalidity of the design may be demanded by those of interest.

The invalidity of the design may be filed during the protection period or within five years following the expiration of the design right. The invalidity case shall be filed against the person registered as the design owner in the register at the date of the case. In order to ensure that the persons who are regarded as the rightful owner of the registry to participate in the case, they are also notified. In the case of unregistered designs, the invalidity case is filed against the person claiming to be entitled (URL-1, 2019).

_Effect of invalidity:_ The decision regarding the invalidity of the design is effective in the past and the protection provided to this design by the Law is deemed to have never been born. The final decision on the invalidity of the design shall result in judgment against all. After the invalidity decision becomes final, the court sends this decision ex officio.
The invalidated design is cancelled by the Authority from the register and published in the bulletin (URL-1, 2019).

Acts considered as a violation of the right to design; The following acts are a violation of the right to design:

- To produce the same or indistinguishable from the general impression of the product in which a design is used or applied without the permission of the design owner. To present the design to the market, to sell, to make a contract, to use it for commercial purposes, to have it, to put it in the field of trade in another way, to subject it to import process.

- Unauthorized extension of the rights granted by the design owner by license or transfer of such rights to third parties.

- To seize the right to design.

The proprietor has the right to file a civil action for infringement of the right to design (URL-1, 2019).

3.2. Cases that can be filed under the intellectual property law

The cases that can be filed by the designers and businesses that have the right to design under the Industrial Property Law are given below (Gunes, 2018).

- Civil cases
  - Civil action against violations of registered rights protected under the Industrial Property Law
  - The case of finding that there is no violation of rights under the Industrial Property Law
  - The determination of unfair competition case
  - The case of unfair competition prevention
  - Elimination of unfair competition, the case of the elimination of results
  - Material and non-pecuniary damages
  - Material compensation case
  - Non-pecuniary damages
  - Compensation for unfair injunction

- Unfair competition and criminal cases
  - Trademark infringement crimes under the Industrial Property Law
Some lawsuits and determination files were evaluated at the Izmir Court of Intellectual Property Rights regarding the problems experienced by the right owners regarding furniture. In these cases, the complaints of the design owners about furniture designs were examined. In addition, the expert reports taken by the court regarding these complaints and the decisions of the court were determined. The lawsuits, expert reports and court decisions are given below.

In some case files, comparative images of the products subject to the case are given.

Case 1: In the plaintiff's petition; the plaintiff stated that the design and copyrights of the products of the company to which he was a distributor were violated by the defendant. He requested that the infringement of the design right made by the defendant be stopped and that unfair competition was prevented. He also requested the determination of the deprived profit and the award of pecuniary and non-pecuniary damage.

Expert report; they found that some of the plaintiff's designs were displayed in the stores and web pages of the respondent firm, and in this context, a design violation occurred. Although there are no obvious similarities and violations in terms of some products, it is understood that 6 designs have been exhibited in the respondent company stores and web pages and there has been a design violation.

Provision; the Court awards a partial acceptance of the case. The Court found that the defendant's act of imitating the products designed by the plaintiff's company was subject to unfair competition and decided to stop and prevent this act. Moreover, when the provision became final, it was seen that it decided to publish the summary of the provision in a national newspaper.

Fake designs and the designs registered by TP is given in Figure 1, 2.

Fake designs and the designs registered by TP

![Fake designs and the designs registered by TP](image1.png)
Case 2: In the plaintiff's petition; requested the cancellation of the document on chair design registered to the defendant. The designation 2011/03132 registered in TP is not innovation and distinctive, it was produced by a number of companies before the date of registration and this design does not have a significant difference from the previous ones, it should be deemed the same as the previous ones and demanded the invalidity of the document.

Expert report; he compared the plaintiff's designs, which he showed as disrupting innovation, with the defendant's design and identified and illustrated similar and different aspects. According to the findings of the expert committee, the product, which is shown as disruptive to innovation, differs from the respondent design in many ways. As a matter of fact, the expert board concluded that the design no. 2011/03132 was subject to innovation and distinctiveness.

Provision; the Court dismisses the inadmissible case of invalidity.

The comparative view of the design registered by TP and the design presented as evidence is given in Figure 3.

Fig. 2 Fake designs and the designs registered by TP

Fig. 3 Images of the design presented as evidence and the design registered by TP
**Case 3: In the plaintiff’s petition:** it was seen that the plaintiff is operating in the field of furniture production and that the design number 2010/01857 registered in TPI is used by the defendant in production and sale without permission and that the defendant has included this design with his name in the 2012 catalog and that the plaintiff filed a claim for pecuniary and non-pecuniary damages.

**Expert report:** they declared that the defendant's product and the plaintiff's 2010/01857 designs 11.1 and 12.1 were different products and that they could not be regarded as distinctly similar.

**Provision:** within the scope of the Law on Industrial Property; it was seen that it decided to reject the non-fixed case.

Fake design and the design registered by TP is given in Figure 4.

![Designs registered by TP and Fake design](image)

*Fig. 4 Fake design and the design registered by TP*

**Case 4: In the plaintiff’s petition:** the plaintiff stated that he / she heard that the registered product of his / her registered trademark 2011/0032435 was produced and exhibited without permission by the defendant, that they had the determination made and that the similarities were determined. He stated that the mass of the customer had contracted due to the defendant's infringement of the right to design, causing the defendant's commercial activity and loss of earnings and reputation. It was seen that the plaintiff filed a claim for pecuniary and non-pecuniary damage.

**Expert report:** it was concluded that the products that the defendant offered for sale and introduced on the internet were clearly similar to the plaintiff's proprietary designs.

**Provision:** within the scope of the Law on Industrial Property; it was seen that the defendant had sold the distinctive proprietary design of the plaintiff, that it was an infringement and unfair competition against the industrial design, that these actions had been stopped and prevented, and that the catalog and other promotional materials and products constituting unfair competition had been decided to be collected and destroyed. When
the sentence became final, it was seen that it decided to publish the summary of the sentence in a national newspaper.

Fake designs and the designs registered by TP is given in Figure 5.

![Design registered by TP](image1.png)  ![Fake design](image2.png)

**Fig. 5 Fake design and the design registered by TP**

**Case 5: In the plaintiff's petition;** he claimed that the designs registered on behalf of the defendant did not meet the legal registration requirements and did not meet the registration criteria. He stated that there are catalogs belonging to non-litigation firms that the design does not carry innovation and distinctiveness. The plaintiff requested the cancellation of designs no.

**Expert report;** the expert assessed the applicant's evidence and design. In this context, he examined the catalogs from the written evidence alleged to disrupt innovation. As a result of the investigation, it was determined that the products in the catalogs 05179 /3.1 and 4.1 were subject to a similar design and therefore the same and distinct similarity was presented to the public before the registration date.

**Provision;** within the scope of the Law on Industrial Property; it was seen that the court decided to nullify and cancel the designs, since the designs 3.1 and 4.1 of 2008/05179 did not meet the registration requirements.

Fake designs and the designs registered by TP is given in Figure 6, 7.

![Designs registered by TP](image3.png)  ![Fake designs](image4.png)

**Fig. 6 Fake designs and the designs registered by TP**
**Case 6:** In the plaintiff’s petition; stating that the design no. 2012/08096 registered in the name of the defendant does not carry innovation, there is no discrimination, and asked for its invalidity to be decided to leave the registry.

*Expert report:* the expert found that there was a significant similarity between the previous dated design of the plaintiff and the design image of the subject matter, and that the design of the defendant did not meet the legal registration requirements.

*Provision:* the Court decided to accept the case under the Industrial Property Act, to discontinue it and to remove it from the register as it did not meet the registration requirements of the designation 2012/08096 on behalf of the defendant.

Fake design and the design registered by TP is given in Figure 8.

**Case 7:** In the plaintiff’s petition; that the defendant sent a warning to the plaintiff and warned him not to sell similar products. However, he stated that the design number 2012/05284, on which the defendant was based, did not carry innovation and discrimination, and therefore they had to open this case. The applicant requested that the multiple designs no. 1, 2, 3 and 4 be removed from the register.

*Expert report:* expert determined that the designs numbered 2012/05284 1 and 3 do not qualify for innovation and discrimination.
However, the expert has determined that the designs numbered 2 and 4 of 2012/05284 carry innovation and distinctiveness.

Provission; the Court provides, within the scope of the Law on Industrial Property; in the main file; 2012 / 05284- decided that the designs 1, 2, 3, 4 of the designs 1 and 3 do not meet the registration requirements and their invalidity and abandonment from the registry. It has been found that it has decided to reject the request for invalidity in respect of designs 2 and 4. In the merger file 2015 / 47-2016 / 42, when the decision on the merger file becomes final, it has decided to publish the summary of the provision in the national newspaper.

Fake design and the design registered by TP is given in Figure 9.

Design registered by TP  
Fake design

Fig. 9 Fake design and the design registered by TP

Case 8: In the petition of the claimant; plaintiff, 2015/1246, 1247, 1248; 2014/8155 stated that he owned the registered designs numbered 8156 and that the defendant violated the design right by producing and selling these designs without permission. It was observed that the plaintiff requested that the damages arising from the infringement of the right to design registration be calculated and decided for its pecuniary and non-pecuniary damages.

Expert report; the expert determined that the same design of the plaintiff 2015/1248, the same design except the TV unit of the designation 2015/1247, the same design except the TV stand of the designation 2014/08456, the same design of the designation 2014/08155 was used by the respondent.

Provission; the Court, in accordance with the Law on Industrial Property, has ruled in part on the adoption of the case. The court ruled that the same design as 2015/1248, the same design as 2015/1247 (except the TV unit), the same design as 2014/08456 (except the TV stand) and the same design as 08155 were wrongly used. It decided to eliminate the infringement of the right to design and to confiscate these products and the tools used in their production. It also decided to publish the summary of the provisions in the national newspaper.

Fake designs and the designs registered by TP is given in Figure 10.
Fig. 10 Fake designs and the designs registered by TP

Case 9: In the petition of the plaintiff; the plaintiff stated that he owns the registered bedroom and dining room designs in TP. It is stated that the defendant firm produced and released imitation of these designs. Furthermore, the claimant company stated that the defendants had
infringed the right to design on the website and requested that the infringement of the right to design be resolved and that the material and non-pecuniary damages be ruled. The plaintiff also requested the rejection of the counterclaim.

*Expert report:* The expert found that the defendant's production and sales actions violated the design right. The expert found that the plaintiff's designs were produced and offered for sale and used on the internet by the defendant company.

*Provision:* The Court notes that the actions of the defendants to produce, sell, and promote the same and prominent counterparts of plaintiff's designs, exhibit on the web, and cataloged acts constitute an infringement of the right to design and unfair competition. It decided to remove the products from the catalog and the web, to eliminate the infringement of the right to design, and to confiscate the products and promotional materials. When the decision was finalized, it was seen that it decided to publish the summary of the provision in the national newspaper.

Fake designs and the designs registered by TP is given in Figure 11.

![Fig. 11 Fake designs and the designs registered by TP](image)

*Case 10: In the plaintiff's petition:* it was requested by the expert to determine whether the counterparty had infringed commercial and
industrial property rights by imitating the plaintiff’s proprietary designs in an unfair and malicious manner.

*Expert report;* the experts mentioned the subjects that were determined and these issues were evaluated.

*Provision;* the Court has carried out an expert examination on the determination under the Industrial Property Law. The issues stated in the concluding part of the expert report were determined. It has been decided that the expert report and the decision of determination determined as evidence shall be notified to the plaintiff (requesting determination) and to the defendant (demanding determination against him). It was also observed that the court decided that the finding would be final as evidence if no objection was made within two weeks.

Fake design and the design registered by TP is given in Figure 12.

Design registered by TP  
Fake design

![Fig. 12 Fake design and the design registered by TP](image)

**Case 11: In the plaintiff’s petition;** it is stated that registered designs registered on behalf of the defendant are presented to the public and the market before the application date. Therefore, it was observed that the designs subject to the case were not new and distinctive, and that their products had been used in the domestic and foreign furniture sector for a long time and demanded that the designs be invalidated.

*Expert report;* the expert found that some of the products produced, exhibited and sold by the defendant were clearly similar to the product in the 2011 catalog. These are designs 2012 / 02820-1 and 2013 / 08394-2. In the evaluation of designs no. 2014 / 03739-2, 2014/0363, 00689-1, 2011/06408, it was found that these products were not similar to those in the 2011 catalog. In 2014/09185 and 00551-1 and 2 designs, it is determined that it is different from the product in the catalog. On the other hand, the registration number 2016 / 06363-2 has been canceled. The respondent product was found to be similar to the design 08396-3.

*Provision;* the Court has ruled the invalidity of the designs numbered 2012 / 02820-1, 2013/08394/2, 2013/08396/3, 2013/00689/1, 2014 /
09185-1, 2016/06363/2 registered in the name of the defendant under the main file. The court decided to reject the case in respect of designs no. 2014/03739/2 and 2014/00551/1 - 2. It was decided to partially accept the case within the scope of the merged file. The Court found that the actions of the respondent party to produce and sell the same and prominent counterparts of designs 2014/03739/2 and 2014/00551/1 and 2 of the plaintiffs infringed the right to design. It decided that these products should be removed, disposed of and the pecuniary and non-pecuniary damages collected from the defendant. In addition, when the decision is finalized; the summary of the provisions to be published in the national newspaper.

The comparative view of the designs registered by TP and the designs presented as evidence is given in Figure 13.

![Designs presented as evidence](image1) ![Designs registered by TP](image2)

Fig. 13 Images of the designs presented as evidence and the designs registered by TP

**Case 12: In the plaintiff's petition;** it was requested by the expert to determine whether the counterparty had infringed commercial and industrial property rights by imitating the plaintiff's proprietary designs in an unfair and malicious manner.

**Expert report;** the experts mentioned the subjects that were determined and these issues were evaluated.

**Provision;** the Court has carried out an expert examination on the determination under the Industrial Property Law. The issues stated in the concluding part of the expert report were determined. It has been decided
that the expert report and the decision of determination determined as evidence shall be notified to the plaintiff (requesting determination) and to the defendant (demanding determination against him). It was also observed that the court decided that the finding would be final as evidence if no objection was made within two weeks.

Fake design and the design registered by TP is given in Figure 14.

![Fig. 14 Fake design and the design registered by TP](image1)

Case 13: In the plaintiff’s petition; it was requested by the expert to determine whether the counterparty had infringed commercial and industrial property rights by imitating the plaintiff’s proprietary designs in an unfair and malicious manner.

Expert report; the experts mentioned the subjects that were determined and these issues were evaluated.

Provision; the Court has carried out an expert examination on the determination under the Industrial Property Law. The issues stated in the concluding part of the expert report were determined. It has been decided that the expert report and the decision of determination determined as evidence shall be notified to the plaintiff (requesting determination) and to the defendant (demanding determination against him). It was also observed that the court decided that the finding would be final as evidence if no objection was made within two weeks.

Fake design and the design registered by TP is given in Figure 15.

![Fig. 15 Fake design and the design registered by TP](image2)
Case 14: In the petition of the claimant; it was requested by the expert to determine whether the counterparty had infringed commercial and industrial property rights by imitating the plaintiff's proprietary designs in an unfair and malicious manner.

Expert report; the experts mentioned the subjects that were determined and these issues were evaluated.

Provision; the Court has carried out an expert examination on the determination under the Industrial Property Law. The issues stated in the concluding part of the expert report were determined. It has been decided that the expert report and the decision of determination determined as evidence shall be notified to the plaintiff (requesting determination) and to the defendant (demanding determination against him). It was also observed that the court decided that the finding would be final as evidence if no objection was made within two weeks.

Fake designs and the designs registered by TP is given in Figure 16.

Designs registered by TP

Fake designs

Fig. 16 Fake designs and the designs registered by TP

4. Conclusions

In this study, the problems experienced by right owners about proprietary furniture designs are examined. In this context; 30 lawsuits
filed by the design owners by applying to the Izmir Intellectual Property Rights Court. In this review; the complaints of the right owners, expert reports on the products subject to the complaint and court decisions were evaluated. In addition, it has been investigated which cases can be opened by the right owners about the problems they have experienced with the furniture they designed. In the light of the data obtained, the problems experienced were identified and solutions were proposed.

When the lawsuits filed regarding furniture designs within the scope of Industrial Property Law are examined; it was seen that the most common problem faced by furniture designers was that the registered designs were produced by other companies unlawfully. The increasing number of lawsuits filed in the courts shows that this problem is increasing. In addition, the increase in the level of legal awareness of designers or firms that have obtained design registration causes these cases to increase.

Another problem with the designs is that most of the designs registered by TP are not novelty and distinctive. This is due to the fact that there is no technical knowledgeable team in the furniture industry who can analyze applications for design registration to TP in terms of innovation and distinctiveness. The inability to evaluate the applications leads to the registration of obvious analogues of the previously registered product or ordinary products.

In the furniture industry, new designs are very important for businesses. Businesses are trying to increase their market share with the new designs they produce with great efforts. In particular, industrial production companies aim to produce their designs registered in the market. Therefore, registered designs should be prevented from being displayed and sold by other companies. Otherwise, this situation causes material and moral damage to the owner / companies.

Right owners can use legal remedies to deal with problems with their registered designs. The cases that can be filed by the designers and enterprises that have the right to design under the Intellectual Property Law are given below (Gunes, 2018).

Civil Cases

- Civil Action Against Violations of Registered Rights Protected Under the Industrial Property Law
- The Case Of Finding That There is No Violation of Rights Under the Industrial Property Law
- The Determination of Unfair Competition Case
- The Case of Unfair Competition Prevention
• Elimination of Unfair Competition, the Case of the Elimination of Results

• Material and Non-Pecuniary Damages
  • Material Compensation Case
  • Non-Pecuniary Damages
  • Compensation for Unfair Injunction
  • Unfair Competition and Criminal Cases
  • Trademark Infringement Crimes Under the Industrial Property Law

As a result of this study; in the furniture industry, it is determined that new designs are important for enterprises to compete and open to new markets. For this reason, it is necessary to increase the legal sanctions in order to protect the designs which have been registered with great effort. In addition, in order to evaluate design applications within TP, it is necessary to form committees consisting of academic staff with technical knowledge who are familiar with the furniture industry.

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1. Introduction

Industry 4.0 is a revolutionary phenomenon that brings about the Internet of Things (IoT), data integration, cloud computing and other technological developments and revolutionizes industrial processes (www.industrialintelligence.net). The concept of Industry 4.0 can also be defined as the application of cyber physical systems to industrial production system (Drath and Horch, 2014: 56). In addition, it is stated that the concept of Industry 4.0 has possible effects not only on production systems but also on systems such as marketing, human resources, logistics and accounting etc. Although every industrial revolution that has taken place is mainly aimed at enhancing efficiency and productivity processes in production activities, it is possible to assert that all business processes in enterprises can be affected by the applications of industry 4.0.

The concept of Industry 4.0 is regarded as an important strategy tool to be successful in competitive structures in the future. In this context, the implementation of technologies that are suitable for the needs of the age in all functions of enterprises ranging from logistics and production systems to marketing, accounting and human resources become prominent (Yıldız, 2018: 548). These technologies will bring about the ability to provide cost minimization, reduction of employee-specific errors and efficient use of time.

While the nature of existing employees is changed, their working style and job descriptions have to be redefined along with Industry 4.0 applications, new requirements arise in terms of the content of the work as well (Öztürk and Koç, 2017: 183). In this sense, companies that have adapted to Industry 4.0 and transformed into digital structure by being modernized thoroughly will be more effective in the market as well as traditional manufacturing companies. The digitalization processes in question will affect all business conduct processes of enterprises and bring the existence of the skilled labour to the agenda. Concordantly, it can be stated that one of the indispensable elements of the Industry 4.0 concept is
skilled labour. Changes and transformations taking place in the systems of marketing 4.0, human resources 4.0, production 4.0, accounting 4.0 and logistics 4.0 in line with Industry 4.0 processes bring about the change of qualitative characteristics expected from the existing human resources in the enterprises. Because, although the concept of digitalization has importance in all processes, the factor that will direct and program the enterprises is still qualified human resources in organizational processes. Within this framework, it will be important for enterprises that aim to be successful in future business processes to work with competent human resources.

In the study, a literature review was conducted by making use of the studies in the literature with the aim of determining the impact of industry 4.0 concept on business systems. In this context, the application of production 4.0, marketing 4.0, human resources 4.0, accounting 4.0 and logistics 4.0 were examined, and the effects of these applications on business systems were clarified.

2. Industrial Revolutions and the Concept of Industry 4.0

There have been two important events, which have caused fundamental social, economic and cultural changes in societies and changed human life completely throughout the historical process. The first of which is the agricultural revolution that took place in 8000 BC, and the latter is the first industrial revolution that took place in the 18th century (Şekkeli and Bakan, 2018: 18). Social life changed very substantially after the first industrial revolution took place. The industrial revolution, which led to major transformations in both social life and daily life in society, paved the way for international trade, working styles and legal structure, forming the basis for great revolutions in social, science and health sciences (Özsoylu, 2017: 42).

When the history of the Industrial Revolutions, which caused many economic, social and cultural changes and transformations are examined, some important reasons are emphasized. Since the 16th century in Europe, the rapid increase of the population, migration from the rural areas to the urban areas, the rise of the living standards of the societies, the increase in the importance attached to scientific knowledge, ever progress of science and the effect of this situation on technology and political structures are implied as some of the reasons for the occurrence of industrial revolutions (Başer, 2011: 20).

The first industrial revolution took place in England in the 18th century and spread to entire Europe in a short while. In other words, the first industrial revolution emerged with the effect of various inventions made in Europe on production, steam powered machines giving birth to mechanized industry and further increase of capital accumulation in
Europe due to these developments (Başer, 2011: 15). Before the industrial revolution, works are done by competent people and are passed on to future generations in this way. However, mode of production based on labour-intensive and manual labour was replaced by the mechanisation along with the first industrial revolution (Tezgel, 2010: 11). During this period, many inventions were made in the field of industry. One of the most important revolutions that spread during the first industrial period was steam engines (Özdoğan, 2017: 21). The rotating motorized thread roller, another important invention, occurred during this period. Great changes and developments were experienced, especially in the field of textile during the first industrial revolution, where change increased rapidly.

Technology progressed with the mechanization of production in the first industrial revolution and accordingly the transition to the second industrial revolution process began. The second industrial revolution occurred in the late 19th and early 20th centuries. The most striking innovation of this period is that mass production was made available with the support provided by electricity and the assembly line (Schwab, 2018). Henry Ford, one of the representatives of the second industrial revolution and the pioneers of the period, started to apply production line models that would form mass production in this period for automobile factories. The invention of steel and electric light bulb is one of the important discoveries that stood out among the important inventions of the period (Kamber, 2019: 17-18).

The mass production system, which had a uniform production system, was replaced by computerized production systems utilizing information communication technologies in production with the ever-increasing industrialization and the diversification of customer product demands in the 20th century. In this period, which is called the third industrial revolution and made important contributions to the 20th and 21st centuries, production models were created in compliance with personal demands by automation, computers, information communication technologies (Gabaçlı and Uzunöz, 2017: 11). From this aspect, the third industrial revolution differs from the two previous industrial revolutions.

Mass production has been substituted by creating production models in line with personal demands with the use of computers, automation systems, information and communication technologies on the production lines (Gabaçlı and Uzunöz, 2017: 11). The distinguishing characteristic of the third industrial revolution from other revolutions so far has been personalized customer demands. Electronic and information technologies have been widely used in this period and rapid developments have been experienced in production, information technologies and production industries with the intense usage of the internet. In this period, intense competition and consumer demands occurring in the industry made it
mandatory for the industries to respond in faster and more effective manner (Kahraman, 2017: 15). These changes and transformations that occurred have forced the industries to change rapidly.

The concept of Industry 4.0, as the fourth industrial revolution, first appeared at the Hannover Technology Fair in Germany in 2011 (Kesayak, www.endustri40.com). Industry 4.0 is expressed as an approach where software and hardware monitor manufacturing processes with the help of internet network systems and govern all business processes (www.volsoft.com.tr). Industry 4.0 can be defined as the ability of machine power to automatically manage production processes by replacing manpower (Bulut and Akçaci, 2017: 62). For this reason, this new era can simply be expressed as 'Internet of Machines, Computers, People and Things' (Evans and Annunziata, 2012: 7). Today, the concept of Industry 4.0, which is expressed as the last industrial revolution, involves not only technological elements, but also fields such as standardization, management of complex systems, provision of comprehensive broadband infrastructure for industry, safety and security, business organization and design, training and continuous professional development and resource efficiency (ACATECH, 2013: 6).

Industry 4.0 constitutes much more than a concept; it contains many technological components like other revolutions. These technological components, which are called the basic constituents of Industry 4.0, are specified as; cyber security, cyber-physical systems, cloud technologies, intelligent factories, internet of things, internet services, learning robots, big data, virtual reality, 3D printers (Hermann et al. 2016: 1532).

The malfunctions in the demand chain can be eliminated, and advantages such as optimizing decision making with real-time end-to-end visibility, increasing resource productivity and efficiency, and the ability to reduce personal costs will come along with Industry 4.0 processes (Mrugalska and Wyrwicka, 2017: 470). Industry 4.0 technologies aim to interconnect machines and facilities that can communicate with people (IoT), develop new product and process strategies, digitalize all production processes, and respond to customer needs instantly (Cirillo et al., 2018: 22). Adoption of these technologies will enable the production modules of the machines to exchange information with each other independently and control each other, and in this way, it will be possible to develop smarter production processes (Nagy et al., 2018: 2).

Industry 4.0 is the emergence of a new mode of production, starting with the use of automation systems and also adding the digitization factor of Industry 3.0. Digitalization processes are expected to become effective in all industrial systems with the concept of Industry 4.0. Data collection and monitoring with digitalization in industry, connections between
machines with sensors and internet of things, artificial intelligence, cyber security, cloud technology, industrial robots have come into question along with the process of Industry 4.0. The Industry 4.0 components are explained as follows in the literature (Saniuk et.al., 2020: 3; Radivojević and Milosavljević, 2019: 288-289; Nagy et.al., 2018:8-9):

**Cyber Security;** Protecting computers, servers, mobile devices, electronic systems, networks and data from malicious attacks,

**Cyber-Physical Systems;** Systems in which computer technologies are integrated with physical elements, having an interdisciplinary character and substantially complex structure,

**Cloud Technologies;** A set of versatile applications made up of applications for the use of information services and enabling access to any information from anywhere at any time and offered over the internet,

**Intelligent Factories;** Dark factories equipped with intelligent technologies, where all technological processes take place and objects interact with each other and where no people work without any human factors,

**Internet of Things;** Intersystem transmission of data generated from any object or device, intelligent readers and machines or human beings via a network,

**Horizontal-Vertical Integration;** Organizations and systems created to facilitate inter-institutional cooperation over the value network, and to establish a flexible and reconfigurable production system,

**Learning Robots;** Self-managing and self-learning machines that are interconnected and can communicate in the smart production process,

**Big Data;** Information technologies that collect all bits in digital media and transform them into a meaningful, usable format,

**Virtual Reality;** High technologies that combine the physical world and the computer environment (animations, codes, images) providing users with intuitive experiences.

Studies conducted demonstrate that the applications and studies of Industry 4.0, which is seen as the technology of the future, will cause important and major changes in human life. Undoubtedly, humanity will enter a new era in the light of science and technology, and this will increase the quality of life of those who keep up with the change in the new order. The opinions expressed in the literature indicate that Industry 4.0 applications can have significant effects on business processes.
3. Industry 4.0 Applications on Business Processes

In this part of the study, Explanations are given below about the effects of industry 4.0 applications on business processes.

3.1. Human Resources 4.0

For enterprises, the Industry 4.0 era leads to major and important changes in all units of the organization. Radical changes come into question in all business methods and in-house structuring of the companies. Major transformations were observed in personnel management practices worldwide upon transition to Human Resources, Industry 4.0. As a matter of fact, job safety decreased due to high job demands in England and unemployment rates increased in Germany, while seniority-based wages were lowered in Japan (Türkel and Bozağaç, 2018: 432).

Technological changes faced by the business world today have increased the need for human resources who can ensure achieving company goals and succeed in hyper-competitive processes. Human resources play a fundamental role in economic development and provide competitive advantage for companies. Industry 4.0 applications bring about changes in areas such as competence, performance, training, motivation, management approaches and human resources technologies. These changes intend to harmonize the interests of employees and managers, and aim for increasing productivity, innovation and quality (Lubis et al., 2019: 96).

Since enterprises may face economic, social and technological difficulties due to these major changes experienced in their business lives, adaptation to technology will get easier with new management approaches and projects that will incorporate Industry 4.0 technologies and applications. The new working model necessitates the expansion and enrichment of tasks, the elimination of uncertainties in occupational distinctions, and the implementation of job rotation plans and programs with the aim of gaining experience in different units (Smith, 2001: 12).

In Industry 4.0, it is indicated that managers should redesign human resources practices such as training practices, performance evaluation, remuneration and staffing in order to encourage innovation and learning in organizations (Çiftcióğlu et.al., 2019: 42). In the 21st century, new business models have turned into a more digital structure with concepts such as cloud, virtual reality and internet of things. While this digitalization contributes positively to the productivity, sustainability and profitability of enterprises, it also causes great changes in human resources. Managers and businesses that want to retain the Generation Y who grew up very closely with technology and the Generation Z individuals born with technology
should establish a transparent bond between managers and employees and have them work on digital platforms (Çiftcioğlu et al., 2019: 41).

Human Resources Management includes various tasks such as personnel recruitment, employee performance management, employee qualifications and career development, wage management, training and organization. Industry 4.0 practices bring about significant changes and transformations in human resources policies as well (Taşköprü, 2019: 52). The changes covered by human resources 4.0 practices in organizational structures are explained below:

**Training Programs:** Training programs need to be redesigned so that innovative skills and learning can develop in the new digital world order. Training programs should be continuous, with high added value, and focus on improving people’s skills. The human resources unit is expected to support employees with the practices of mentoring and coaching and help them achieve their own personal development. Interaction with intelligent machines and working power create serious changes in competency profiles (Taşköprü, 2019: 52). In addition, the exchange of information between various industries and universities is also important in human resources 4.0 processes. When Human Resources 4.0 policies are included in the curricula of universities, it will be accompanied by the development of competitive human resources (Gan and Yusof, 2019: 621).

**Performance Management:** A performance evaluation system consistent with Industry 4.0 processes should focus on employee development and result-based approaches. Employees should routinely receive feedback on their performance. Furthermore, performance evaluation should be carried out more objectively, that is, evaluation of performance quantitatively should come to the fore. An ideal evaluation process should include creating performance standards, communicating expectations, measuring actual performance, comparing actual performance with the standards, discussing the evaluation with the employee and initiating corrective action when necessary (Shamim et al., 2016: 5313).

Due to the lack of skilled workforce in human resources 4.0 processes, it is important to establish an effective reward system and bring new talented employees to the organization in order to retain and develop existing employees. The opinions expressed in the literature indicate that innovativeness and the eagerness to learn in organizations can be increased with a good reward system. In this context, material and moral rewards are important in motivating qualified employees and reducing the rate of leaving the business (Gan and Yusof, 2019: 622).

**Remuneration:** In Industry 4.0, the wage management system should represent the contribution of employees to the business, and employees
should receive salaries based on individual, group and organizational performance (Taşköprü, 2019: 53). An incentive reward system based on performance should be available. One of the most important points where digitalization and technology stand out in the context of remuneration is payrolling systems. Performing payroll transactions, which are performed manually in legal parameters, with software having higher infrastructure enables the transactions to be performed faster, with less error and less cost (Çiftcioğlu et al., 2019: 42).

The concept of Industry 4.0, which has an influence on business processes, brings about the change in the qualifications of employees working in organizational processes every other day and also differentiation of working methods, remuneration and the content of the work (Öztürk and Koç, 2017: 183). It is predicted that Industry 4.0 processes will bring destructive changes in labour markets and increase the demand for highly skilled labour within this scope. The digital transformation that can take place in organizational processes paves the way for the emergence of a new employee profile which is talented, innovative and has advanced technological understanding (Manda and Dhaou, 2019: 246). In this context, considering that the basic condition for people to take part in production processes is the element of talent, it may lead to a deeper distinction between low wages in jobs requiring lower skills and high wages in jobs requiring higher skills (Doğru and Meçik, 2018: 1585).

Industry 4.0 processes raise the need to focus on "skills that do not exist now but exist in the future" (Manda and Dhaou, 2019: 246). Thus, it is stated that creative human resources having high intellectual imagination and brilliant command of knowledge production and innovative behaviours in organizational processes will earn higher wages (Harkins, 2008: 28). Today's employees must face the fact that their current duties will no longer exist in the future. The duties of human resources working in organizational structures continue to change rapidly. In addition, the new order created by digital devices, internet of things and networked systems eliminates many job descriptions made by employees (Agolla, 2018: 44).

3.2. Marketing 4.0

Marketing processes also differentiate due to changes and transformations in information technologies. Marketing processes also progress in parallel with technology and the concept of Marketing 4.0 emerges as a result of this situation (Ertuğrul and Deniz, 2018: 147). The increase in the range of alternative products in the markets with globalization has brought the existence of competitive processes to the
agenda. Marketing strategies have become important for businesses to compete and ensure their sustainability.

Marketing 1.0, the first stage of marketing, emerged in the first industrial revolution in parallel with the industrial revolutions by focusing on selling products without considering the needs and demands from the target market and it was expressed as a product-oriented approach (Ertuğrul and Deniz, 2018: 147). Marketing 2.0 is a customer-focused era and new markets were created by substantially taking into account customer needs and desires. Marketing 3.0 is a human-centred era. In this era, consumers are active, dynamic, conscious and thoughtful. Marketing 4.0 is a new system that includes approaches, methods, tools and applications (Büyükkalaycı and Karaca, 2019: 468).

It is desired to bring a new dimension to the market with Marketing 4.0. In this context, it is noteworthy that the existence of e-commerce processes has also gained importance. As such, businesses seeking high competitiveness in the e-commerce market pursue the following strategies (Murdiana and Hajaoi, 2020: 40).

- To follow market opportunities,
- To formulate the marketing strategy,
- To design the customer experience,
- To establish a marketing program,
- To use customer information through technology,
- To create systematic market customers,
- To evaluate the marketing program.

Marketing 4.0, which emerged with the combined use of traditional marketing and digital marketing, is a highly active marketing system where commercial transactions and customer activities can be monitored in real time (Büyükkalaycı and Karaca, 2019: 468). The purpose of Marketing 4.0 is to predict marketing activities based on future developments. Today, the demands of the consumers have been customized; their expectations and desires from the products have completely changed. Accordingly, customized products requested by the customer have come to the fore with artificial intelligence algorithms by using Industry 4.0 technologies. Artificial intelligence in marketing is of great importance in terms of predicting the next steps that customers will take (Bayuk and Demir, 2019: 792). The most important feature of artificial intelligence for marketers is that the simple and time-consuming complex operations conducted on a daily basis are performed quickly thanks to intelligent algorithms by benefiting individuals and businesses.

Companies that undergo digital transformation in accordance with Marketing 4.0 processes (Boeing, General Electric, Adidas, etc.) grow dynamically and increase their productivity and earning levels.
Furthermore, the innovative behaviours of companies in their marketing processes draw attention as well. For example, Adidas and Salomon produce smart shoes created for individual customers, H&M, on the other hand designs all its collections for specific customers based on the information gathered about their customers' tastes and behaviours (Saniuk et al., 2020: 6).

3.3. Logistics 4.0

The concept of Logistics 4.0 has emerged as the innovations and applications brought by systems with cyber internet infrastructure have an impact on the logistics sector as well as the entire industry and the use of intelligent systems in logistics. Logistics 4.0 is a term related to intelligent services and products. intelligent logistics, also known as Logistics 4.0, is a logistics system that will increase the flexibility of enterprises, and at the same time bring them closer to the change in the market and customer expectations (Özdemi̇r and Özgüner, 2018: 44).

Logistics 4.0 applications should support Industry 4.0 processes starting from processing the market requirements and production planning to the delivery of products to end users. In this context, digitalization of logistics activities and processes, that is, digital logistics applications are of great importance (Radivojević and Milosavljević, 2019: 286).

For an effective Logistics 4.0, it is very important to use a set of technological applications. These technological applications are as follows:

Resource Planning: Resource planning management procedures will bring flexibility, agility and efficiency to logistics processes so that Industry 4.0 applications gain acceptance and the cyber physical systems could function. Increased visibility and transparency in the supply chain will enable adequate estimation of resources (Barreto et al., 2017: 1248-1249).

Warehouse Management Systems: Warehouses have always been important in the flow of goods in the supply chain. The locations and estimated arrival times regarding the transportation processes in this system will be transmitted to the intelligent warehouse management system. In addition, sensors will reveal what goods will be delivered; tracking and monitoring data will be sent to the entire supply chain. Also, the storage space will be automatically determined according to the delivery characteristics and it will be possible to place the goods in the correct position autonomously with the appropriate equipment. All processes will provide real-time visibility at the inventory levels of the enterprises; thus, inventory problems will be prevented. Logistics 4.0
applications will have importance on the effectiveness of the service level to be offered to the customers (Barreto et al., 2017: 1249).

Within the scope of Logistics 4.0, it will be possible to develop storage technologies equipped with automation technologies, which are widely used, by means of face recognition, voice or light guidance systems that will increase human-machine interaction. The usage of automatically directed stocking tools, intelligent stocking systems, intelligent racks, systems that can determine their own routes will increase and efficiency and effectiveness will be achieved in storage activities with the applications of Logistics 4.0. Intelligent machines will constantly share data on the levels of stocks, supply chain failures, damaged products, and changes in order or demand quantities, and thus, processes will be re-coordinated in a way that enables efficient and effective use of the capacity (Çetin, www.tasimadunyasi.com; Özdemir and Özgüner, 2018: 43).

Transport Management Systems: These systems provide mutual interaction between demand management, distribution centres or warehouses. Thanks to the transportation systems, enterprises can track their vehicles with GPS technologies, monitor their transportation movements and obtain information swiftly. As transport management systems offer end-to-end supply chain visibility, they are also adopted by small and medium-sized businesses. Transport management systems that are integrated into smartphone applications provide visibility into where the drivers are at any time. Transport management systems make it possible to track the current position and movement of each vehicle and forecast its future position. The fact that vehicles have stronger detection, networking, communication and data management capabilities will also enable the sharing of less used resources among vehicles in parking areas or roads (Barreto et al., 2017: 1249-1250).

Intelligent Transportation Systems: Intelligent transportation systems are important for increasing safety and reliability, travel speeds, traffic flow and reducing risks, accident rates, carbon emissions and air pollution. Intelligent Transportation System provides solutions for collaboration and a reliable platform for transportation. Electronic toll collection, road data collection, traffic management systems, vehicle data collection, transit signal priority, emergency vehicle prevention are some of the applications of the intelligent transportation systems. When considered within the scope of Logistics 4.0, intelligent transportation systems have importance in the management of parking and delivery areas of smart trucks, in multimodal cargo transport that supports planning and synchronization, in reducing fuel consumption and reducing emissions, and in eco-driving (in supporting truck drivers to adopt a more energy-efficient driving style and thus reducing fuel consumption and emissions) support (Barreto et al., 2017: 1250).
**Information Security:** Changes are being observed in the mode of doing business adopted by the enterprises with the emergence of cloud-based systems. Enterprises are interested in these technological developments with the aim of providing more innovative services, minimizing their costs and gaining competitive advantage. New technological developments, on the other hand, may bear security gaps and lead to unexpected security problems. For this reason, it is important for enterprises to be able to protect their information systems and technological infrastructure against security risks. Security control applications conducted by enterprises to manage customer and business information allow to increase the trust in these enterprises by the customers (Barreto et al., 2017: 1250-1251).

The changes and transformations envisaged in the logistics industry with Logistics 4.0 are as follows (Şekkeli and Bakan, 2018: 29-30):

- Thanks to the sensors and smart tags to be attached to the products or vehicles, the products will be enabled to act and manage themselves throughout the supply chain; in this way, it will be possible to obtain simultaneous information about the level and how the products are delivered to the consumers,
- The storage process will be fully automated and stock management will be conducted more practical and error-free,
- Accident risks will be eliminated by improving the visual fields with the addition of blind spot cameras, forward facing radar systems, mirror cameras etc. to heavy vehicles in terms of security,
- The form of transportation will change with smart vehicles such as driverless trucks, autonomous ships and pilotless aircraft, which are produced in a new style,
- Employees will wear augmented reality glasses that display information on logistics and production, and thanks to these glasses, they will be able to see if each part is in the correct place where it should be mounted during the assembly, by using virtual reality,
- In order to render transportation more efficient, vehicle capacities will be increased, which will result in the use of less fuel and a decrease in costs.

**3.4. Production 4.0**

Industry 4.0 applications and technologies will undoubtedly influence the manufacturing sector the most. Since the objective in the new revolution is to reduce costs and increase efficiency, businesses will first want to change their production systems and create new production models in line with this purpose. Therefore, the focus will be on market demand as the products of the future will be more complex, although, the existing
and new materials partially allow the innovation to be experienced in the production process (Bağcı, 2018: 130).

The concept of Industry 4.0 focuses on the interaction of the production side. Based on a strong industrial foundation, the concept integrates information and communication technologies, aims to establish a smart factory and intelligent production. The focus is on creating intelligent products and processes that place greater emphasis on the Internet of Things (IoT) and control logic (Zhou ve Le Cardinal, 2019: 2113).

The traditional manufacturing factories will be left and new generation production centres called 'Dark Factories' will be switched to with the inclusion of robotic systems and humanoid robots in the production processes in the Industry 4.0 process. While Lights Out Manufacturing (LoM) refers to the machine and manufacturing process that is controlled by a computer and does not require any human to operate it, pre-installed devices in these factories can continue the processes on their own without any external guidance (Akben and Avşar, 2018: 30). Human factor rarely comes into question in dark factories. Production is made by intelligent robots that autonomously think, manage and organize.

Machines in the Industry 4.0 factory are physical systems integrated with cyber-physical systems and information communication technology components. These are autonomous systems that can make their own decisions by capturing real-time data, based on analytical results and recorded past behaviour. Programmable machines (CNC and NC) are used in the Industry 4.0 factory, and a large proportion of the mobile agents and robots can organize themselves (Jojko, 2017: 81).

Using real-time and high-value support systems, smart production has enabled a coordinated and performance-oriented manufacturing initiative that responds swiftly to customer demands, minimizes energy and material utilization, and radically improves sustainability, productivity, innovation and economic competition (Kayar et al, 2018: 1653). These concepts such as the internet of things, cloud computing systems, cyber-physical systems, and intelligent robots pertaining to the new revolution are important components that unite the production line and these lines.

In the production systems, necessary material and device controls, product efficiency and stock control are performed and production is started by supplying the required raw materials and equipment through Industry 4.0 technologies. Errors in the production process can be intervened instantly, and the errors caused by production can be reduced to a minimum. For speciality product orders, the system considers each activity involved in the production process, calculates the operation time and the amount of material to be used, and estimates the cost (Tutar, 2011: 325). Industry 4.0 technologies revealed artificial intelligence, augmented
and virtual reality in production processes, and brought a new decision-making mode to the agenda (Strandhagen et al., 2017: 347).

Thanks to intelligent systems, data analysis and data scientists involved in the production process, the production time in the production line will be measurable and evaluable, thus, can be adjusted according to market and customer demands. The ideal system in production refers to the perfect flow and the correct methods must also be well known in order to establish the flow (Apilioğulları, 2019: 157). Industry 4.0 aims to reduce the costs arising from the use of labour force, as well as quality and error-free production with the latest technological production systems offered to enterprises (Akben and Avşar, 2018: 31).

3.5. Accounting 4.0

The new industrial revolution that emerged with the use of intelligent technologies in the industry has deeply affected the accounting system as well as all other systems. Today, all industrial enterprises that are manufacturing products and services are experiencing great changes along with technological developments. Accounting systems are also one of the working spaces where technology is most affected, and the use of these technological applications by accountants for enterprises that have switched to digitalization provides many conveniences for private and public institutions (Gönen and Rasgen, 2019: 2910).

The most important changes in the accounting process are the transfer of recording, classification, abstracting and reporting functions to intelligent machines, intelligent production systems, intelligent warehouses and intelligent stocks and the real-time recording of data in the accounting system (Gönen and Rasgen, 2019: 2910). Together with Industry 4.0, accounting recording systems will change into intelligent recording systems. Accountants using intelligent accounting systems will also be individuals, who design the accounting information system, analyse and interpret the reports. Therefore, the changes will also come into question in the conditions that ensure the professional competencies of accounting professionals with the implementation of Industry 4.0 (Kablan, 2018: 1568).

Within the scope of Industry 4.0 processes, the data that accountants were not able to obtain before can now be obtained in real time, and improving the quality of data will have an impact on accounting practices as well. In this process, accuracy and timeliness in decision-making processes are aimed, as well as data efficiency and data assurance. In addition to this, the reliability of reporting in accounting practices is also expected to increase (Ghani and Muhammad, 2019: 20).
Especially, it will be easier to reach fast and reliable information with the automatic flow of data to the information system, and audit activities will be carried out in a healthier and more transparent environment (Gönen and Rasgen, 2019: 2910). Therefore, the reliability of financial statements in businesses will increase, and more transparent, reliable and healthy data will be provided to the information users. Another feature of Industry 4.0 applications in the accounting processes is to ensure paper saving. This will result in a significant decrease in printer and toner costs (Tektüfekçi, 2013: 101).

The application of big data applications, which is one of the Industry 4.0 processes, in accounting activities will have an impact on the future of financial reporting and especially on the reporting of off-balance sheet assets among generally accepted accounting principles (Huy and Phuc, 2020: 839). The use of artificial intelligence applications in accounting activities will bring along more comprehensive and detailed investigations by analysing large amounts of data during audit processes. In this way, it will also be possible to save time in the audit processes. Artificial intelligence applications utilized in risk management processes enable businesses to recognize different data. Moreover, artificial intelligence applications carry out text analysis in order to reveal fraud cases. Artificial intelligence applications in trend analysis help accountants by producing approximate results in data collection and analysis processes (Handoko et al., 2019: 1038). Cloud computing applications are also used in accounting 4.0 processes. Although the number of employees working to complete the accounting process is low, cloud accounting applications can enable businesses to provide timely services. The cloud system helps to fulfil various responsibilities consisting of accounting and management, employees and stakeholders’ access to the applications via computers and cellular devices in this system and have the opportunity to update data from anywhere without returning to the office (Huy and Phuc, 2020: 839-840).

It is inevitable to experience a change process in the accounting profession and its education along with the changes taking place in the field of accounting. Industry 4.0 consists entirely of digital systems and technological applications. Therefore, educators also need to improve their intellectual capacities and learn to think in a more complex and integrated manner so that they could prepare students for the digital age (Gönen and Rasgen, 2019: 2910). In order to achieve this, educational institutions and educators should move away from the standardized conventional education understanding and use different teaching and assessment methods in accordance with the 21st century education and curriculum.

Although accounting 4.0 applications bring about important advantages, it is anticipated that they will also bring some risks with them. These risks are outlined below (Gönen and Solak, 2017: 79):
Significant infrastructural studies need to be carried out in order to ensure the integration of accounting professionals into the system. The investment required for ensuring the integration includes high costs. Due to the complexity of the software used, members of profession are likely to make mistakes. Members of professions should continuously participate in both vocational training and in-service training so that they could overcome the problems related to the application.

Industry 4.0 technology and applications eliminate manpower by integrating all functions of enterprises, and will enable intelligent robots and all objects connected to the internet to communicate with each other and with their customers as well. However, Industry 4.0 technological infrastructures including accounting activities must be provided in all areas of enterprises in order to implement such an integration. For the sustainability of the system, it will become mandatory not only to implement technological software but also to make employees qualified and to provide necessary vocational training to members of the profession.

4. Conclusion

When considered in the historical process, it is noteworthy that industrial revolutions bring about change and transformation in economic, social and cultural aspects. In this context, the first industrial period allowed for the production process powered by water and steam, and the second industrial period, on the other hand, enabled mass production with the use of electricity. Ever-increasing industrialization, increases in customer demands enabled mass production in production processes. In this period, which is named as the third industrial period, production processes transformed into computerized production systems, in which information communication technologies are utilized. Today, the communication of machines with each other has come to the fore through advancing technologies, accordingly, the concept of Industry 4.0 has emerged. Industry 4.0 applications, which allow enterprises to enhance their efficiency and productivity criteria, bring along changes and transformations not only in production systems, but also in many areas such as human resources, marketing, accounting, internal and external logistics systems. In this context, companies that have adapted to Industry 4.0 and transformed into digital structure by modernizing their systems thoroughly will be more effective in the market.

Nowadays, enterprises that can survive in these processes will be the ones that can adapt to technological advances and new requirements of the works. In order to achieve this, it is important for enterprises to have qualified human resources as well as technologies that are more different
from their competitors. When considered within the scope of production factors of enterprises, human resources are undoubtedly the most important production factor. Because the ability to manage the technology, capital, management processes and natural resources of enterprises effectively and efficiently will only be possible with the availability of qualified human resources. Today, practices that neglect the importance of human resources in all systems of enterprises will cause some aspect of Industry 4.0 processes to fall short. In addition, the inclusion of technology in all business systems also brings about the replenishment of technology knowledge of the existing human resources working in the enterprises each passing day. Furthermore, if the Industry 4.0 applications are included in education processes starting from pre-school education to universities, this will result in the prioritization of human resources who are competent and knowledgeable in their field.

The competitive working conditions brought by today's business world aim to enable individuals who have received university education to be experts in their fields and have the educational knowledge consistent with the needs of the industry. In this context, conducting the training processes in line with the needs of the industries and in interaction with these industries, especially the updating of the instructional plans in accordance with the industry 4.0 processes, will enable the training of expert human resources who have mastered the implementation processes and trained according to the needs of the industry. However, the fact that many people cannot be employed in fields that meet their expectations despite graduating from various departments of universities and holding more than one degree raises the presence of unemployment problem. This situation indicates that there are differences between the educational processes and the expectations of the business world.

In order to meet the need for qualified human resources more effectively in Turkey, it is important to restructure the training programs together with the industries and in line with the needs of the industries. In this sense, the projection of the lessons integrated into the application processes in the curriculum of all educational institutions from pre-school education institutions to universities, the opening of new departments within the universities that can meet the needs of the industries will enable graduating students to be employed in industries that can meet their expectations. The conceptions expressed in the literature show that all systems of enterprises will be subject to digitalization over time. In this regard, it is recommended to restructure the educational processes in order to adapt to the new dynamics of the business world. In addition, if current employees working in enterprises participate in activities that support their qualitative development, this will both ensure their professional development and contribute to the long-term success of the enterprise.
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DECISION-MAKING STYLES OF YOUNG CONSUMERS IN THE PURCHASE OF FASHION APPAREL

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The purpose of the study is to determine the decision making styles of university students towards fashion clothes. The study was conducted on 822 female students from different disciplines at Pamukkale University and Selçuk University. The form developed by the researchers is a closed-ended five-point Likert type. LISREL 8.71 package program was used to determine whether the four-factor model was confirmed by Confirmatory Factor Analysis (CFA). Varimax rotation technique was used to interpret the data in factor analysis. In a four-factor structure, a total of 22 sentences were excluded, with factor loadings below .50 (18 items) or disrupting the structure of the model (4 items), and calculations were made on 23 items. This four-factor model explains 66.53% of the total variance. The internal consistency coefficient of the scale was calculated as Cronbach $\alpha = .932$. These four dimensions were named as “fashion conscious consumers” (8 items), “consumers seeking innovation” (5 items), “brand conscious consumers” (5 items) and “quality conscious consumers” (5 items). For example, KMO value is 0.935. The effect of age, most experienced place, socio-economic status (SES), shopping frequency, place of purchase and type of purchase on fashion style decision making styles of the students were investigated by analysis of variance and t test.

Keywords: Young consumers, fashion apparel, purchase, decision-making styles

1. Introduction

Marketing research is based on attitudes, preferences, motivations and values in different periods. Life experience, technological developments, environmental problems and legal regulations have potential effects on young people’s consumption expenditures. Income, education, gender and other commonly known demographic factors on selection and purchasing are highly effective, as well as lifestyle and social values. Different generations and demographic consumer groups are exposed to different social and economic opportunities and barriers, different
technological activities, different social perceptions and social norms, different life experiences and events (Hume, 2010:387). The university market, seen as one of the most popular consumer segments due to market size, is associated with lifelong brand loyalty, parental impact on purchasing and high standard of living (Wolburg & Pokrywczynski, 2001). College-age students have significant purchasing power. This is an important market place for marketers and the center of attention given the power and attractiveness (Noble, Haytko & Phillips, 2009:617).

For many people, especially young ones, an active life is directly linked to consumerism and status (O'Cass & Siahtiri, 2013:505). Fashion is a model of behavior that has been revived by the development of the consumer industry, and fashion understanding varies by generations. Dressing up is an indicator that both confirms social identity and certifies being in the whole and forms a part of it, as well as a social phenomenon that distinguishes the individual from others (Velioglu, Çifci, Dölarslan, Kiyar & Karsu, 2013:10). Young people generally prefer higher quality, cheaper and stylish clothing than older generations who prefer to buy fewer high-quality and expensive clothes (Bhardwaj & Fairhurst, 2010; Holmberg & Öhnfeldt, 2010:4).

2. Theoretical Background

While fashion orientation explains an individual's interest in fashion products and their thoughts, the shopping orientation explains the dimensions of diversity, frequency and motivation (Gam, 2011:180). Fashion reflects society and culture as well as it reflects how people define themselves. Although fashion processes are influenced by all kinds of cultural events, people tend to balance fashion with clothing and accessories. Fashion can be found in almost any human activity (Solomon & Rabolt, 2007; Holmberg & Öhnfeldt, 2010:1).

Fashion awareness is a dimension of the lifestyle that affects an individual's purchasing decision and consumption behavior (Casidy 2012:243). Consumer decision-making style is defined as the mind processes that determine consumers' approach to choosing between products (Sprotles & Kendall, 2005) and affects attitudes and behaviors towards shopping. Consumer decision-making styles are "basic purchasing-decision-making attitudes that consumers must follow even when applied to different products, services or purchasing decisions" (Tanksale, Neelam & Venkatchalal, 2014:212; Walsh, Mitchell & Hennig, 2001). Purchasing behavior, unlike economic or psychological, is the decision-making processes and actions of an individual to buy and use products influenced by the social and cultural structure (Michaela & Lavie orna, 2015:173).
Consumer decision-making styles are stereotypes, mental and cognitive orientations that consistently dominate the consumer's approach to purchasing choices (Kwan, Yeung & Au, 2004:2). To conceptualize these styles, a model was established by Sprotles and Kendall (2005) that includes eight mental consumer decision-making behavior orientations (Table 1). This classification varies by culture, and not all of these consumer groups are seen in every country. On the other hand, apart from this classification, it is possible to find different consumer groups. Sprotles & Kendall (2005:269) described consumer decision-making as mental orientation describing a consumer's decision-making approach, and found that the consumer decision-making characteristics defined in the literature to date has identified the eight most basic mental features covering both emotional cognitive characteristics. These forms of consumer decision-making form a conceptual framework for brand, price and quality. Each of these decision styles characterizes an independent consumption approach. The model of consumer groups and decision-making formats, which defines these eight mental characteristics, is given in Table 1 (Nayeem & Casidy, 2015:68).

Consumer behavior is defined as the behavior they display in search, purchase, use, evaluate and dispose of products and services that consumers expect to meet their needs (Schiffman & Kannuk 2007:3). Consumer behavior is an important factor in the decision-making process in the purchase of fashion clothing. Product and brand preferences vary according to the life cycles of consumers. Brand addiction in young consumers is higher than in the elderly, and this brand dependence in young people directs their ways of purchasing (Wood & Lynch, 2004:421).

Purchasing behaviors on the one hand, the individual needs and motives of the consumer, the learning process, personality, perceptions, attitudes and beliefs; on the other hand, it emerges from the influence of socio-cultural factors such as culture, social class, reference group and family in the society in which the person is a member (Kotler, 1968). Purchasing behaviors are affected in various forms; internal factors such as perception, motivation, learning, attitude, personality, self-concept, lifestyle and demographic variables, as well as external factors such as cultural background, subculture, family influence and social structure (Susilawati & Anunu, 2001:2).

Attitude is defined as a psychological tendency to evaluate a particular entity and to some extent expressed as liking or dislike (Dreezens, Martijin, Tenbult, Kok & Vries, 2005:40). Huang and his friends (2004:600) describes attitude as "a predisposition to a particular brand that constantly learns to respond positively or negatively".

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### Table 1. Description of consumer decision-making traits (Sprotles & Kendall, 2005:269; Nayeem & Casidy, 2015:68; Zhou, Arnold, Pereira & Yu, 2010:46).

<table>
<thead>
<tr>
<th>Decision-making Traits Description</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Perfectionism or high-quality consciousness</td>
<td>A characteristic that measures the degree to which a consumer searches carefully and systematically for the highest or very best quality in products.</td>
</tr>
<tr>
<td>Brand consciousness</td>
<td>Measures a consumer’s orientation to buying the more expensive, and wellknown brands in the belief that the higher price of a product is an indicator of better quality.</td>
</tr>
<tr>
<td>Novelty-fashion consciousness</td>
<td>A characteristic that identifies consumers who like new and innovative products and gain excitement from seeking out new things.</td>
</tr>
<tr>
<td>Recreational, hedonistic consciousness</td>
<td>A characteristic measuring the degree to which a consumer finds shopping a pleasant activity and shops just for the fun of it.</td>
</tr>
<tr>
<td>Price conscious, and “value for-money” shopping consciousness</td>
<td>A characteristic identifying those consumers who have a high consciousness of sale prices and lower prices in general.</td>
</tr>
<tr>
<td>Impulsiveness</td>
<td>A characteristic that identifies those consumers who tend to buy on the spur of the moment and appear to be unmindful of the amount they spend on getting “best buys”.</td>
</tr>
<tr>
<td>Confused by overchoice</td>
<td>A characteristic identifying those consumers who perceive too many brands and stores from which to choose, and thus experience an information overload.</td>
</tr>
<tr>
<td>Habitual, brand-loyal</td>
<td>A characteristic indicating consumers who have favorite brands and stores, who have formed habits in choosing these repetitively.</td>
</tr>
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</table>

It plays an important role in consumer behavior that cannot be directly observed. An attitude is an organization of various beliefs focused on a particular object or situation. Attitude can be said to play a vital role in the consumption pattern for fashion clothing. Wu (2003:37-38) acknowledges that attitude can serve as a bridge between consumers' key characteristics and consumption that meets their needs. Kim and Park (2003:107) have demonstrated that attitude towards a behavior is based on an individual's positive or negative assessment of
a related behavior and consists of conspicuous beliefs about the perceived consequences of behavior. Park and his friends (2006:5) argued that consumers often have conflict associations based on a particular object and the attitude they can project at once, and are subject to conditions. It can be concluded that attitude can be regarded as a positive or negative emotion towards a particular object. In addition, the consumer’s assessment of the object determines whether the attitude towards the object is positive or negative (Anic & Mihic, 2015).

There has been many studies done on young consumers’ decisions on fashionable clothing (Eriksson, Rosenbröijer & Fagerström, 2017; Mishra, 2010; Kwan, Yeung & Au, 2008; Radam, Ali & Leng, 2011; Anic, Rajh & Rajh, 2015; Song, Kong & Wang, 2011; Azam, Danish & Akbar, 2012; Bae, Pyun & Lee, 2010; Chew & Leng, 2016). In these studies, decision-making styles and factors affecting them are discussed. In this study, it was tried to determine the decision-making styles of university students regarding fashion wear.

3. Methodology

3.1. Framework

Young consumers, especially university students, represent a significant portion of future consumers. Their role as future consumers in product categories such as clothing is important. At the same time, the high level of fashion leadership and shopping pleasures of young consumers, using social media and online shopping has been more active in the selection (Shephard, Kinley & Josiam, 2014:277). Women's expectations of clothing and fashion are higher and perfectionism outweighs men (Dickson, Lennon, Montalto, Shen & Zhang, 2004; Mitchell & Walsh, 2004) and also female students are included in the study as they are much more likely to be value and brand conscious, shop and follow the current fashion from the media (Anic & Mihic, 2015:106). A total of 822 female students from Pamukkale University in Denizli and Selcuk University in Konya were included in this study. The study was conducted on students who were randomly selected from different disciplines in both universities and accepted the practice of questionnaires. Particular attention has been paid to the coverage of all units and classes of the research. Data were collected from March to May of the year 2016.

A questionnaire was used to collect the research material. Individuals have filled out structured questionnaires themselves. In this way, referrals and comments from the researcher are eliminated. The questionnaire was completed by the individual in approximately 15-20 minutes. The survey form is based on the closed-ended quintuple
Likert scale, developed in previous studies (Kwan, Yeung & Au, 2004:7; Mandhlazi, 2011:105) The answers given to sentences are given as I strongly disagree (1), disagree (2), partially agree (3), agree (4) and strongly agree (5). They were asked to state that they participate or did not participate in these by marking the appropriate situations among the options. The questionnaire prepared for this purpose has been checked by three experts in the field. A pilot application was performed on 50 students before the general application. After checking the functioning of the questions, the questionnaire was finalized and general practice was initiated.

The questionnaire of decision-making styles for consumers to choose fashion clothes consists of 9 questions about the demographic data of young consumers and 45 attitude sentences of Likert type. The effect of age, the place survived, socio-economic status (SED), shopping frequency, place of purchase and the way of buying were investigated on the decision-making styles for choosing fashion clothes.

3.2. Analyses

The measure of KMO sampling adequacy was 0.935, which was a satisfactory result for factor analysis. This result shows that the KMO criterion is excellent (Akgul, 2003:450). As a result of factor analysis, 18 sentences with a factor load below 0.5 were removed from the scale of 45 sentences, and the remaining 27 sentences were collected in 4 factors. As a result of The Corroborating Factor Analysis (DFA), four items that distorted the structure of the model were removed from the model and the calculations were made on a total of 23 items.

Descriptive and inferior statistics were made to analyze the composition of the sample. SPSS Windows 17.0 version was used to evaluate the data. Factor Analysis was calculated to determine the underlying dimensions of decision-making styles, and Pearson correlation coefficients were calculated to analyze the relationship between variables. Variance Analysis (ANOVA) was performed to evaluate the differences between group averages. The reliability of the scale was done using the alpha coefficient and finally the validity of the scale was evaluated.

3.3.Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA), a study was conducted with covariance matrix of scores from the “young people's decision-making styles of fashion clothes” scale to determine whether the four-factor model obtained by explanatory factor analysis was verified. LISREL
8.71 package program was used for confirmatory factor analysis (Jöreskog & Sörbom, 2004).

To test a measurement tool with confirmatory factor analysis and to test the harmony of the data, there are many congruence indices in the literature. The most common of these congruence values are: chi-square, Comparative Fit Index CFI, Standardized Root Mean Square Residual SRMR, Root Mean square Error of Approximation RMSEA, and Non-Normed Fit Index/Tucker-Lewis Index NNFI.

Of these fit indices, the upper limit values of RMSEA ranging from .06 to .10 are acceptable, SRMR is .08 and .10 or less, CFI and NNFI are .90 and a value indicates acceptable fit for the model, .95 and above is accepted as a good index of fit (Browne & Cudeck, 1993; Hu & Bentler, 1999).

The factors obtained as a result of the exploratory factor analysis and the substances contained in them were examined by confirmatory factor analysis for their measurement values. As a result, the chi square value for the proposed four-factor mode was \( \chi^2 (224, N= 882) = 1571.64, p< .001 \). The chi square value 'p' used to determine the suitability of the obtained data to the model is expected to be insignificant (McDonald & Ho, 2002). However, when the sample is large, this value is usually significant (Dimitrov, 2010). As a result of the CFA, the 28th, 38th, 39th and 40th items in the model were removed from the model because of their low factor loads. After repeated DFA measurements, it was found that it had good compliance values with \( \text{RMSEA}= .086, \text{SRMR}= .076, \text{CFI}= .95, \text{NNFI}= .95 \) which was frequently used in. In addition, the 90% confidence interval (GA) limit for RMSEA was found to range from 0.76 to 0.90. In other words, possible RMSEA changes are within acceptable limits depending on the sample size. However, as shown in Table 2, as a result of path analysis of question items and sub-scales obtained as a result of DFA application, the standardized factor loads of scale items have a value between. 47 and .85 is determined. It was recorded that the t values of these values reached a significant level.

4. Results

Based on Basic Component Analysis (BCA), a four-factor solution with a value greater than 1.0 was obtained as the most suitable model for this example. Tustin and his friends (2005:671) recommends that only factors with a value greater than 1.0 be preserved and that factors with a value less than 1 should not be included in the measurement model. For this reason, four factors with values ranging from 1,645 to 9,381 were included in the model. Maholtra and Birks (2007:654) stated that for a satisfactory result it should be taken into account 60%
of the total variance. These four factors describe 66.532% of the total variance (Table 3), achieved higher total variance from previous studies using the same variables (Tanksale, Neelam & Venkatachalam, 2014:214; Sproles & Kendall, 1986; Hafstrom Chae & Chung, 1992; Fan & Xiao, 1998; Canabal, 2002).

**Table 2.** The scale of young people's decision-making styles for fashion clothing, standardized and unstandardized factor loads, $R^2$ and $t$ values

<table>
<thead>
<tr>
<th>Item</th>
<th>$R^2$</th>
<th>Unstandardized factor load</th>
<th>Standardized factor load</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.43</td>
<td>.74</td>
<td>.66</td>
<td>20.20</td>
</tr>
<tr>
<td>2</td>
<td>0.44</td>
<td>.70</td>
<td>.66</td>
<td>20.45</td>
</tr>
<tr>
<td>3</td>
<td>0.73</td>
<td>.94</td>
<td>.85</td>
<td>29.08</td>
</tr>
<tr>
<td>4</td>
<td>0.70</td>
<td>.91</td>
<td>.84</td>
<td>28.29</td>
</tr>
<tr>
<td>5</td>
<td>0.46</td>
<td>.77</td>
<td>.68</td>
<td>20.96</td>
</tr>
<tr>
<td>6</td>
<td>0.44</td>
<td>.82</td>
<td>.66</td>
<td>20.11</td>
</tr>
<tr>
<td>7</td>
<td>0.42</td>
<td>.77</td>
<td>.65</td>
<td>19.69</td>
</tr>
<tr>
<td>8</td>
<td>0.55</td>
<td>.86</td>
<td>.74</td>
<td>23.47</td>
</tr>
<tr>
<td>9</td>
<td>0.63</td>
<td>.92</td>
<td>.80</td>
<td>25.78</td>
</tr>
<tr>
<td>10</td>
<td>0.57</td>
<td>.86</td>
<td>.75</td>
<td>23.85</td>
</tr>
<tr>
<td>14</td>
<td>0.22</td>
<td>.54</td>
<td>.47</td>
<td>13.65</td>
</tr>
<tr>
<td>23</td>
<td>0.53</td>
<td>.79</td>
<td>.72</td>
<td>22.60</td>
</tr>
<tr>
<td>24</td>
<td>0.51</td>
<td>.86</td>
<td>.72</td>
<td>22.24</td>
</tr>
<tr>
<td>25</td>
<td>0.57</td>
<td>.87</td>
<td>.76</td>
<td>23.97</td>
</tr>
<tr>
<td>26</td>
<td>0.42</td>
<td>.73</td>
<td>.65</td>
<td>19.50</td>
</tr>
<tr>
<td>27</td>
<td>0.42</td>
<td>.65</td>
<td>.54</td>
<td>15.70</td>
</tr>
<tr>
<td>36</td>
<td>0.36</td>
<td>.75</td>
<td>.60</td>
<td>18.07</td>
</tr>
<tr>
<td>37</td>
<td>0.18</td>
<td>.50</td>
<td>.43</td>
<td>12.30</td>
</tr>
<tr>
<td>41</td>
<td>0.50</td>
<td>.87</td>
<td>.71</td>
<td>22.52</td>
</tr>
<tr>
<td>42</td>
<td>0.65</td>
<td>.95</td>
<td>.81</td>
<td>27.16</td>
</tr>
<tr>
<td>43</td>
<td>0.63</td>
<td>.96</td>
<td>.79</td>
<td>26.29</td>
</tr>
<tr>
<td>44</td>
<td>0.61</td>
<td>1.01</td>
<td>.78</td>
<td>25.87</td>
</tr>
<tr>
<td>45</td>
<td>0.53</td>
<td>.92</td>
<td>.73</td>
<td>23.49</td>
</tr>
</tbody>
</table>

### 4.1. Reliability Analysis

The Cronbach alpha coefficients for Factor 1, factor 2, factor 3 and factor 4 range from 0.843 to 0.929 (Table 4), showing satisfactory internal consistency levels in terms of reliability. These four factors reflect reliability values above 0.70, which are considered satisfactory according to Reynaldo and Santos (1999:2). In addition, the reliability of the overall scale is 0.932, which has been considered satisfactory.
Figure 1. Path Analysis of standardized values of young people’s decision-making styles scale items for fashion dress

Studies (Sproles & Kendall, 1986:269; Zhou, Arnold, Pereira & Yu, 2010:46) refers to 8 consumer groups based on purchasing decision-making, but factor analysis results in young consumers it is identified that they are looking for fashion-conscious (FC), innovation-seeking (NC), quality-conscious (QC) and brand-conscious (BC) consumers. These four factors describe 66.532% of the cumulative variance.
Table 3. Converted factor loads matrixa

<table>
<thead>
<tr>
<th>Factor/Substances</th>
<th>Self-Value</th>
<th>Factor Load</th>
<th>Variance %</th>
<th>Total Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Fashion-Conscious Consumers (FC)</strong></td>
<td>9,381</td>
<td>40,786</td>
<td>40,786</td>
<td></td>
</tr>
<tr>
<td>FC42</td>
<td>Intimated with fashion clothing</td>
<td>,830</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC43</td>
<td>Feel like I know a lot about fashion clothing</td>
<td>,828</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC44</td>
<td>I'm classifying as an expert on fashion clothes</td>
<td>,815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC45</td>
<td>For me, fashion cloth is an important product</td>
<td>,766</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC41</td>
<td>I shop to keep up trends</td>
<td>,762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC37</td>
<td>I'm an experienced consumer in fashion clothing</td>
<td>,738</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC36</td>
<td>Fashion clothing means a lot to me</td>
<td>,732</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC14</td>
<td>Fashionable, attractive styles are very important for me</td>
<td>,555</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2: Novelty-seeking consumers (NC)</strong></td>
<td>2,466</td>
<td>10,721</td>
<td>51,507</td>
<td></td>
</tr>
<tr>
<td>NC26</td>
<td>I feel like I'm exploring new worlds while shopping</td>
<td>,801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC25</td>
<td>Shopping for clothing offers new experiences</td>
<td>,785</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC24</td>
<td>Shopping satisfies my feelings of curiosity</td>
<td>,774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC27</td>
<td>Shopping is an adventure for me</td>
<td>,720</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC23</td>
<td>It is worth spending time shopping in stores</td>
<td>,660</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3: Brand-conscious consumers (BC)</strong></td>
<td>1,811</td>
<td>7,873</td>
<td>59,380</td>
<td></td>
</tr>
<tr>
<td>BC08</td>
<td>It is best to choose the most advertised brands.</td>
<td>,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC10</td>
<td>I prefer to buy branded clothes that are usually more expensive</td>
<td>,749</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC06</td>
<td>High priced clothes are better quality</td>
<td>,742</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC09</td>
<td>Well-known garment brands are best for me</td>
<td>,741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC07</td>
<td>Pleasant departments and specialty clothing stores offers best clothing for me</td>
<td>,645</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 4: Quality conscious consumers (QC)</strong></td>
<td>1,645</td>
<td>7,152</td>
<td>66,532</td>
<td></td>
</tr>
<tr>
<td>QC01</td>
<td>It is important for me that the garment is of very good quality</td>
<td>,810</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* Converted factor loads matrix.
QC03  I usually try to buy the best quality clothing  ,781
QC02  I strive to be the best or the best choice when it is about buying clothes  ,780
QC04  I try to choose the best quality clothing  ,773
QC05  My standards and my expectations for clothing are very high  ,564

"Extraction method: Principal components analysis. Rotation Method: Varimax with Kaiser Normalization. Loading <0.05 excluded from analysis

Fashion-conscious consumers (F1); represents a group of consumers who are motivated to keep their fashion style and trends alive. This factor consists of 8 substances and describes 40.786% of the variance. This result shows that young consumers are acting in fashion and take into account the physical attractiveness and fashion rather than quality when making the decision to buy. These are consumers that are ambitious, competitive, demanding, interested and confident and aware of their appearance (Wan, Yuon & Fang, 2001; Anic & Mihic, 2015:106).

Table 4. Cronbach's Alpha coefficients in a four-factor structure

<table>
<thead>
<tr>
<th>Number</th>
<th>Factor</th>
<th>Cronbach’s Alpha</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>FC= Fashion-conscious consumers</td>
<td>0,929</td>
<td>8</td>
</tr>
<tr>
<td>F2</td>
<td>NC= Novelty-seeking consumers</td>
<td>0,877</td>
<td>5</td>
</tr>
<tr>
<td>F3</td>
<td>QC= Quality conscious consumers</td>
<td>0,856</td>
<td>5</td>
</tr>
<tr>
<td>F4</td>
<td>BC= Brand-conscious consumers</td>
<td>0,843</td>
<td>5</td>
</tr>
<tr>
<td>Total Cronbach alpha</td>
<td></td>
<td>0,932</td>
<td>23</td>
</tr>
</tbody>
</table>

Novelty-seeking consumers (F2); it represents a group of consumers who are excited to look for new and innovative products and new things. This factor consists of 5 variables and describes 10.721% of the variance. According to Solomon and Rabolt (2004), the adoption of innovative products is based on the consumer's knowledge and experience of these products. According to Im and his friends (2003:61), innovative consumers prefer to buy new and different products instead of their previous preferences and purchasing habits. Studies show that innovative consumers have higher income and educational level, young people, more tendency to take risks and social mobility, more social participation and higher visibility.
Brand-conscious consumers (F3); represents a group of consumers striving to buy products from more expensive, well-known brands (Anic & Mihic, 2015:109). This factor consists of 5 variables and describes 7.873% of the variance. Brand loyalty is defined as a reaction to a brand based on behavior towards a non-random, prejudiced, biased and long-term purchase (Jacoby & Kyner, 1973:2).

Quality conscious consumers (F4); systematically represents the group of consumers who are systematically looking for the highest quality product and carefully researching the product. This factor consists of 5 variables and describes 7.152% of the variance. These consumers choose taking into account the utilitarian characteristics (quality and low price) of products and brands, as well as their emotional benefits (status, wealth, prestige indicator, etc.). Especially in developing countries, it is more evident that an individual exhibits social status and income inequality by purchasing foreign goods. Consumers in developing countries who want to live a similar life as Western cultures often buy foreign brands and imitate Western practices (Kumar, Lee & Kim, 2009:521).

4.2. Demographic characteristics of students

In this study to determine the decision-making styles regarding fashion clothing, students' age, birthplaces, places of live, socio-economic status (SES), shopping frequency, places of purchase and the form of purchase is given in Table 5.

4.3. Effect of other variables on decision-making styles regarding fashion clothing

Age, birthplace, most common place, socio-economic status (SED), shopping frequency, place of purchase and purchase on students' decision-making styles regarding fashion clothes the effect of the way it was received was investigated by variance analysis and t test (Table 6).

In the analysis, it was determined that the effect of shopping and shopping style variables on decision-making on fashionable clothes was not meaningful (p>0.05). Age is important in deciding on fashionable clothing (p<0.042). The less age, the higher the average decision point. As the age increases, the decision score is increased in brand conscious consumers.
Table 5. Demographic characteristics of students (N=822)

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>-21</td>
<td>58.9</td>
</tr>
<tr>
<td>22+</td>
<td>41.1</td>
</tr>
<tr>
<td><strong>Birthplace</strong></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>37.8</td>
</tr>
<tr>
<td>Town</td>
<td>41.4</td>
</tr>
<tr>
<td>Country side</td>
<td>20.8</td>
</tr>
<tr>
<td><strong>Most experienced place</strong></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>53.2</td>
</tr>
<tr>
<td>Town</td>
<td>35.6</td>
</tr>
<tr>
<td>Country side</td>
<td>11.2</td>
</tr>
<tr>
<td><strong>Socio-economic status (SES)</strong></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>4.7</td>
</tr>
<tr>
<td>Medium</td>
<td>87.1</td>
</tr>
<tr>
<td>High</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>Shopping style</strong></td>
<td></td>
</tr>
<tr>
<td>On her own</td>
<td>14.5</td>
</tr>
<tr>
<td>With family</td>
<td>24.2</td>
</tr>
<tr>
<td>With friends</td>
<td>46.1</td>
</tr>
<tr>
<td>With family and friends</td>
<td>15.2</td>
</tr>
<tr>
<td><strong>Frequency of Clothes Shopping</strong></td>
<td></td>
</tr>
<tr>
<td>2 or less per month</td>
<td>47.3</td>
</tr>
<tr>
<td>3-4 times a month</td>
<td>36.7</td>
</tr>
<tr>
<td>More than 4 per month</td>
<td>15.9</td>
</tr>
<tr>
<td><strong>Place of purchase</strong></td>
<td></td>
</tr>
<tr>
<td>Department stores</td>
<td>9.6</td>
</tr>
<tr>
<td>Stores</td>
<td>77.7</td>
</tr>
<tr>
<td>Outlets</td>
<td>11.1</td>
</tr>
<tr>
<td>Internet</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Purchase style</strong></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>78.1</td>
</tr>
<tr>
<td>Credit /installment</td>
<td>21.9</td>
</tr>
</tbody>
</table>

*SES is based on students' own assessments.

Decision making about fashion able to make a difference was found to be related to the birthplace (F= 6,392, p<0.002). Urban-born people are aware of innovation, brand and quality (p<0.01). There was no significant correlation between fashion consciousness and birthplace (p>0.05). The most common place is influenced by consumer decisions (F=5,190, p<0.001). The decision score of the residents of the city and the district is higher than those who live in the country side. Those born in the city are more aware of the innovation search, brand awareness, quality awareness and fashion awareness than those born in the district and village. The difference between the city and the village is also very significant (t=3,213, p<0.001). The average decision scores of urban residents are higher than those living in the village, which applies to all four consumer groups.
Table 6. Analysis of decision-making styles for fashion clothing based on demographic variables (t test and One-Way ANOVA)

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Arithmetic mean</th>
<th>St Deviation</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong> a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-21</td>
<td>68.556</td>
<td>17.055</td>
<td>4.141</td>
<td>p &lt; 0.042*</td>
</tr>
<tr>
<td>22+</td>
<td>67.293</td>
<td>17.785</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Birthplace</strong> b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>70.347</td>
<td>16.962</td>
<td>6.392</td>
<td>p &lt; 0.002**</td>
</tr>
<tr>
<td>Town</td>
<td>67.685</td>
<td>17.423</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country side</td>
<td>64.532</td>
<td>17.408</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Most experienced place</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>69.382</td>
<td>17.137</td>
<td>5.190</td>
<td>p &lt; 0.006**</td>
</tr>
<tr>
<td>Town</td>
<td>67.580</td>
<td>17.660</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country side</td>
<td>63.098</td>
<td>16.641</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socio-economic status (SES)</strong> b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>60.077</td>
<td>18.699</td>
<td>31.612</td>
<td>p &lt; 0.000**</td>
</tr>
<tr>
<td>Medium</td>
<td>67.088</td>
<td>16.278</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>82.806</td>
<td>20.198</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Shopping style</strong> b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On her own</td>
<td>66.985</td>
<td>17.217</td>
<td>1.247</td>
<td>p &gt; 0.291</td>
</tr>
<tr>
<td>With family</td>
<td>68.250</td>
<td>16.677</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With friends</td>
<td>66.387</td>
<td>19.211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With family and friends</td>
<td>69.702</td>
<td>17.316</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Frequency of Clothes Shopping</strong> b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 or less per month</td>
<td>64.509</td>
<td>16.536</td>
<td>28.983</td>
<td>p &lt; 0.000**</td>
</tr>
<tr>
<td>3-4 times a month</td>
<td>68.527</td>
<td>16.617</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 4 per month</td>
<td>77.382</td>
<td>17.942</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Place of purchase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department stores</td>
<td>67.253</td>
<td>18.187</td>
<td>.321</td>
<td>p &gt; 0.810</td>
</tr>
<tr>
<td>Stores</td>
<td>68.013</td>
<td>17.014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlets</td>
<td>68.274</td>
<td>18.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td>72.308</td>
<td>20.459</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Purchase style</strong> a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>67.321</td>
<td>16.935</td>
<td>3.405</td>
<td>p &lt; 0.026*</td>
</tr>
<tr>
<td>Credit /installment</td>
<td>70.589</td>
<td>18.623</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05   **p<0.01   a- t testi  b- One-way ANOVA

There is a significant correlation between the socio-economic level of the family (SES) and the decision score of clothes (F=31.612, p<0.001). As the SES rises, decision scores rise significantly (p<0.001) in all four consumer groups.

Decision-making affects the frequency of clothing exchange (F=28.983 p<0.001). Young people with a high purchasing frequency also have higher purchasing decision points. This applies to all four consumer groups, and as the purchase increases, so does the decision scores of female students regarding fashion wear.
The way it is purchased is effective on innovation-seeking and brand-conscious consumers' decisions (p<0.05), especially for credit shoppers with higher average points. In contrast, the way of purchasing does not differ from those who are fashion conscious and quality conscious (p>0.05).

5. Discussion

There are many studies that address demographic variables that affect consumers when buying fashionable clothes (Straughan & Roberts, 1999:559; Gupta & Chitragupta, 1994:129). However, some research has reported inconsistent findings regarding the effects of gender, age, income, and education on fashion clothing (Kwong, Yau, Lee, Sin & Tse, 2003:227). It has been noted in several studies that there are differences between women and men when buying fashionable clothes. Of these, Straughan and Roberts (1999:559-560) found that women are more likely to be careful than men when buying fashionable clothes. Kwong and his friends (2003:227) determined that age and education are not related to an individual's intention to purchase clothes. In this study, average scores increased as age decreased. In the study conducted by Birol (2014:91), it was determined that the expression for women's decision-making styles was “price-oriented” and that the priority size was “high quality-oriented” and “brand loyalty-oriented” factors had the same percentages when looking at the lower size averages. In women's clothing shopping, it is understood that if the price of the product is appropriate, they tend to quality (the value of the product, the benefit), and that the brands they are used to are often decisive in preferences. In our study, it was found that the scores were higher in those who were born in city and those who had a long period of life in the city, and that the increase in socio-economic level was important in shaping consumer types. Radam et al. (2011), the study shows that consumers shop during promotion periods, generally prefer low-priced products, and spend their money on cheaper and quality products.

The study by Anic and Mihic (2015:113) applied regression analysis to determine the effect of gender, age, income and household size on fashion awareness. The analysis found that age is the most important demographic variable on fashion awareness, followed by income, gender and household size. Research results show that women are more fashion conscious than men. Similarly, fashion awareness of high-income consumers is higher than that of low-income ones. This result is similar to our study. Younger consumers are more fashion-conscious than older households, compared to older households. In contrast, it was understood that education did not promote fashion awareness. In high fashion conscious individuals, the number of items purchased, the amount of unplanned purchases and expenses are higher than in lower fashion
conscious individuals. In the study, fashion awareness was found to be directly related to buying.

In our current study, four types of consumers were found to be “fashion conscious, innovation seeking, quality conscious and brand conscious”. The above mentioned “price-oriented, non-thinking shoppers, types of confusion and habitually buying” consumer types did not make any sense. Lysonski et al. (1996)’s study in New Zealand found no “price and value conscious” consumer groups. The decision-making process is dominated by three consumer groups (brand conscious, innovative-fasion conscious and habit-brand loyalty) in developed (US and New Zealand) and developing (Greece and India) countries. The findings of this study are similar to the results of our study. The study conducted by Kwan, Yeung and Au (2004:5) found six consumer groups - recreational and hedonistic, brand and fashion conscious, perfectionist, habit-brand loyalty, anti-choice and price and value conscious. The study conducted by Yasar and Sundu (2017:190) on individuals of different age groups found that, unlike our study, “brand and fashion oriented styles” were less preferred, whereas “price oriented and faithful-oriented” styles were most preferred. It is thought that this preference difference may be more due to age and experience.

A study was done in 2011 by Morais and Montagna (2015:5815) showed that active female consumers have a habit of buying appropriate clothing on a 1-2 track train per year. These consumers' most important reasons for buying clothes were pleasure and necessity, they had made the purchase even though they had no requirements for clothing.

6. Conclusions and Suggestions

In this study, which was conducted to determine the decision-making styles of female students studying at the university, as a result of factor analysis, four types of consumer groups; fashion conscious consumers, consumers looking for innovation, brand conscious consumers and quality-conscious consumers are detected. One of the most important results of the study according to other studies is the birthplace and the most common place is the effect on consumer consciousness. Undoubtedly, over time, generations' decisions about fashion able to wear will also change. Modern technology, luxury of living, emerging economies, international trade and travel barriers are the determinants of these decisions. These effects certainly affect the concept of selection and purchase. Therefore, it is important to investigate the differences, inequalities of understanding and practice between the younger, adult and old generations of decisions to choose fashion clothes.
This research is limited only to female students at a certain level of education, not allowing generalizations. Naturally there will be differences in how men of different ages, education, culture and social status choose fashion clothes. Future research in this direction is important in shaping the consumer market. As a result, after observation of the consumer's decision-making styles on clothing, new strategies and innovative ideas can be developed in the marketplace to attract and satisfy different consumers to the product.

References


O'Cass, A., & Siahtiri, V. (2013). In search of status through brands from Western and Asian origins: Examining the changing face of fashion clothing consumption in Chinese young adults. *Journal of Retailing and Consumer Services, 20*, 505–515. doi:10.1016/j.jretconser.2013.05.005


DOES TOURISM AFFECT ECONOMIC GROWTH?  
A DYNAMIC PANEL-DATA APPROACH

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Orcid ID: 0000-0002-3290-064X

1. Introduction
Tourisms perceived as one of the fastest-growing industries worldwide. In addition to raising foreign exchange earnings, tourism development also provides employment opportunities, boosts the growth of the tourism industry, and thus promotes overall economic growth. Recently, tourism has become an important bridge via which foreign exchange is transferred to host countries. In 2016, the World Tourism Organization reported that international tourism contributed around 10% of the world economy and accounts for 7% of total global exports. Therefore, perceiving international tourism as one of the most important contributors to economic growth, developing countries started to create economic policies that were geared toward supporting this sector. Developing countries also began to implement policies geared toward strengthening the infrastructure of the tourism sector and to invest in human capital to attract new tourist arrivals.

Tourism may spur economic growth across various channels. First, the tourism sector can lead to foreign exchange inflows for the host countries, thus acting as an important source of financial resources that can be used to finance capital goods. Secondly, tourism can play an important role in promoting new infrastructure investments. Third, tourism can create new jobs, thereby increasing host countries' employment and income. Finally, tourism can lead to the dissemination of technical knowledge and human capital accumulation. When we analyze the literature, we observe that scholars have diverse opinions on the real effect of tourism on economic growth. Although the tourism-led growth hypothesis is supported by some research work. This study, therefore, seeks to assess the effect of tourism receipts on the economic development of developed and developing countries\(^1\) over the period 2002-2014. To accomplish this goal, we have employed a one-step system GMM dynamic panel technique. This study contributes to the extant literature in many ways; first, most previous studies have used econometric methods that ignore the complex nature of growth; on the other hand, within a simultaneous equation approach, this research investigates the relationship between development and tourism to capture the endogeneity among the variables. Second, in previous studies, the TLGH has immensely been investigated for developing countries; in

\(^1\) For list of countries see Appendix A
contrast, we classify the countries into two groups—developing countries and high-income or developed countries—and performed GMM estimations for both groups. Finally, we can calculate and interpret the potential impact of tourism on the economic growth of the analyzed countries by employing appropriate techniques.

The rest of the paper is structured as follows: The subsequent section presents the review of literature. Section 3 describes the data and methodology, and section 4 contains the empirical findings and discussion. Section 5 showcases conclusion of the study.

2. Literature Review

The TLGH postulates that tourism development leads to economic growth. Most of the literature suggests that tourism positively affects economic growth through different channels. McKinnon (1964), for instance, concluded that tourism tends to increase revenues that can be used to buy capital goods, which can produce goods and services in turn. In addition, the findings of empirical studies, for instance (Bilen, Yilanci, & Eryüzlü, 2017; Brida, Cortes-Jimene & Pulina, 2016; Brida, Lanzilotta, Pereyra, & Pizzolone, 2015; Tang & Abosedra, 2014; Khoshnevis, Salehi, & Soheilzad, 2017) have shown that tourism can contribute to higher levels of jobs, foreign exchange, and government revenue, which have a positive influence on economic development. Balassa (1978) suggested that tourism may influence economic growth by upgrading the factor endowments or by widening resources. Nissan (2011) et al., who studied the relationship between the development of tourism and economic growth, found that tourism not only helps firms obtain essential funding for economic and infrastructural development but also promotes its efficiency and creates a job market for the local economy that strengthens the welfare of the masses. Furthermore, Studies conducted by Balaguier and Cantavella-Jorda (2002) and Durbary (2002) supported the positive link between tourism and economic growth due to the former’s positive contribution to employment, earnings, income, and taxes.

Nonetheless, the causal relationship between tourism and economic growth is undetermined and inconclusive. Some studies have found a negative relationship between the two variables or have found no evidence to support the relationship between them. Arslanturk et al. (2011), Ghosh (2011), Oh (2005), and Payne and Mervar (2010) have argued against TLGH. Katircioglu (2009) analyzed the relationship between the two variables in Turkey by employing the Bound test and the Johansen approach; however, he was unable to find evidence supporting the TLGH hypothesis vis-à-vis the Turkish economy.

It is also debated if the causal correlation between tourism and economic development is unidirectional or bidirectional. Unidirectional
causality from tourism to economic growth or from economic growth to
Tourism has been asserted by several researchers (see Brida & Risso, 2009;
Dritsakis, 2012; Eeckels et al., 2012; Georganopoulos, 2012; Ivanov &
Webster, 2013; Katricioglu, 2011), while others have argued that there is
bidirectional causality between economic growth and tourism (see Apergis
& Payne, 2012; Dritsakis, 2004; Mohapatra, 2018; Nanthakumar et al.,
2008; Oh, 2005; Ridderstaat et al., 2013).

3. Data and Methodology

3.1. Data

The market potential represented by (GDP) growth rates is our
dependent variable. Furthermore, we specified the following explanatory
variables: tourism receipts as the main explanatory variable; GDP per
capita as an indicator of market size; gross capital formation as an indicator
of physical capital, which is prefixed as an investment; school enrollment
to represent human capital; ratio of high technology exports to total exports
as an indicator of technology; and trade openness, which is measured by
taking the ratio of total exports plus imports to GDP. We also included time
dummies between 2002 and 2014 to capture the time effect. All variables
are measured in US dollar values and retrieved from World Bank’s online

3.2. Methodology

A dynamic structure must be pursued by economic growth models. The
Arellano and Bond method (1991), which is the most appropriate technique
for producing consistent estimators with dynamic panel data structures,
was thus employed in this study. Since we introduced the lagged variables
of the dependent variables, which yield biased estimators; the panel data
models of static nature such as fixed and random effect are inappropriate
to address the biasness issue. Therefore, Arellano and Bond (1991)
advocated the use of a GMM procedure which produces unbiased and
consistent estimators. They argued that in the model that produces
unbiased estimators, the lagged values of independent variables can be
used as instruments. The general form of the model can be structured as
follows:

\[ y_{i,t} = \beta_0 + y_{i,t-1} + \sum_{i=2}^{N=6} X_{i,t} + a_i + u_{i,t}, \]

where \( y_{i,t} \) depict the variable of economic growth rate; \( y_{i,t-1} \) represents the
lagged value of the growth variable; and \( \sum_{i=2}^{N=6} X_{i,t} \) portrays the explanatory
variables, including tourism receipts and other control variables,
respectively. Finally, $a_i$ shows the individual country fixed effects, and $u_{i,t}$ represents the error term. $a_i$ can be eliminated from the specification by taking the first difference. However, if the first difference is taken, the time effect will remain intact, thus generating inconsistent and biased estimators.

Further, Arellano and Bond (1991) contented that the introduction of lagged explanatory variables as instruments has the advantage to resolve the potential problem of endogeneity i.e. correlation of error term with explanatory variables and bi-directional causality among the variables. Such an approach is known as the generalized method of moments (GMM). Difference GMM is a suitable estimation technique that uses differenced data and lagged values of the dependent variable as a covariate. The moment conditions are shown below:

$$E[y_{i,t-s}u_{i,t}] = 0 \text{ or } E[y_{i,t-s}(v_{i,t} - v_{i,t-1})] = 0 \text{ for } s \geq 2; t = 3, \ldots, T; k = 1, \ldots, 3$$

$$E[y_{i,t-s} - y_{i,t-s-1}](\eta_i + v_{i,t}) = 0 \text{ for } s = 1; k = 1, \ldots, 3$$

Additionally, Arellano and Bover (1995) and Blundell and Bond (1998) conditioned the variables’ persistence over time to generate consistent and unbiased estimators. Alternatively, since the lagged levels of the variables become weak instruments, it is possible to apply additional moment conditions using the lagged first differences.

These additional moment conditions can be written as follows:

$$E[y_{i,t-s} - y_{i,t-s-1}](\eta_i + v_{i,t}) = 0 \text{ for } s = 1; k = 1, \ldots, 3$$

For the $j$th endogenous regressor, the additional moment conditions are given as below:

$$E[(X_{ji,t-s} - X_{ji,t-s-1})(\eta_i + v_{i,t})] = 0, \text{ for } s = 1; k = 1, \ldots, 3$$

Blundell and Bond (1998) and Arellano and Bover (1995) proposed the use of the system GMM method that is more efficient than the GMM estimator of difference. The system GMM is based on Monte Carlo simulations which incorporate additional moments. However, this technique may lead to over-identification problems and weaken the
efficiency of the tests. Nevertheless, adopting the instrument reduction technique of Roodman (2009) enabled us to decrease the number of instruments.

4. Empirical Results

To assess empirically the influence of tourism on the growth of countries, the system GMM technique is employed and results are reported in Table 1 for developing countries and Table 2 for developed countries. Furthermore, we performed the Arellano–Bond test for AR (2) and the Hansen (1982) test to ensure that our empirical findings were robust. The diagnostic test results are reported at the bottom of Tables 1 and 2. The results of Hansen’s test of over-identifying restrictions and the second-order autocorrelation test depict that there is no serial correlation in the error term nor over-identification problems among the instrumental variables.

Table 1. Empirical Results for Developing Countries

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Probabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth t-1</td>
<td>0.5227</td>
<td>0.000**</td>
</tr>
<tr>
<td>Tourism</td>
<td>-0.0002</td>
<td>0.076</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>-0.0194</td>
<td>0.303</td>
</tr>
<tr>
<td>Investment</td>
<td>0.1178</td>
<td>0.000**</td>
</tr>
<tr>
<td>Human capital</td>
<td>-0.0055</td>
<td>0.669</td>
</tr>
<tr>
<td>Technology</td>
<td>0.0255</td>
<td>(0.041)*</td>
</tr>
<tr>
<td>Openness</td>
<td>-0.0039</td>
<td>0.213</td>
</tr>
<tr>
<td>Dummy for 2002</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Dummy for 2003</td>
<td>0.5962</td>
<td>0.386</td>
</tr>
<tr>
<td>Dummy for 2004</td>
<td>1.0907</td>
<td>0.174</td>
</tr>
<tr>
<td>Dummy for 2005</td>
<td>0.1790</td>
<td>0.797</td>
</tr>
<tr>
<td>Dummy for 2006</td>
<td>1.4646</td>
<td>0.008**</td>
</tr>
<tr>
<td>Dummy for 2007</td>
<td>0.7225</td>
<td>0.359</td>
</tr>
<tr>
<td>Dummy for 2008</td>
<td>-1.6757</td>
<td>0.077</td>
</tr>
<tr>
<td>Dummy for 2009</td>
<td>-4.6517</td>
<td>0.000**</td>
</tr>
</tbody>
</table>
It is evident from Table 1 that tourism development has no effect on developing countries’ economic growth; rather, the variable of tourism receipts is negatively linked to economic growth in these countries but is weak in magnitude. Investment and technological progress is positively associated with economic growth and yields significant results at 1% and 5% level of significance, respectively. The empirical findings for developing countries are according to our expectation, since capital formation or investment levels are the primary inputs for economic growth, especially for developing countries. As the capital accumulation level increases, producers can produce more goods and services, which in turn drive economic growth in these countries. Besides, the positive link between technology and development show that developed countries are lagging behind in technological advancement, and can achieve higher economic growth rates as they undergo technological improvements. Moreover, we observed from our empirical results that the time dummy for 2009 has a deterrent effect on economic growth. In other words, we empirically proved that the global financial crisis (GFC) that started in the United States at the end of 2007 has a negative effect on economic growth for these countries.

Table 2. Empirical Results for High-Income Countries

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Probabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth t-1</td>
<td>0.3610</td>
<td>0.008**</td>
</tr>
<tr>
<td>Tourism</td>
<td>0.0034</td>
<td>0.445</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>-0.0153</td>
<td>0.184</td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td>Prob.</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>Investment</td>
<td>0.1843</td>
<td>0.019**</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.0097</td>
<td>0.876</td>
</tr>
<tr>
<td>Technology</td>
<td>-0.0080</td>
<td>0.653</td>
</tr>
<tr>
<td>Openness</td>
<td>0.0064</td>
<td>0.014**</td>
</tr>
<tr>
<td>Dummy for 2002</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>Dummy for 2003</td>
<td>-2.2676</td>
<td>0.014**</td>
</tr>
<tr>
<td>Dummy for 2004</td>
<td>-1.0634</td>
<td>0.196</td>
</tr>
<tr>
<td>Dummy for 2005</td>
<td>-2.0672</td>
<td>0.025**</td>
</tr>
<tr>
<td>Dummy for 2006</td>
<td>-1.4215</td>
<td>0.105</td>
</tr>
<tr>
<td>Dummy for 2007</td>
<td>-1.7256</td>
<td>0.066</td>
</tr>
<tr>
<td>Dummy for 2008</td>
<td>-5.3458</td>
<td>0.000**</td>
</tr>
<tr>
<td>Dummy for 2009</td>
<td>-8.2201</td>
<td>0.000**</td>
</tr>
<tr>
<td>Dummy for 2010</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>Dummy for 2011</td>
<td>-2.6229</td>
<td>0.003**</td>
</tr>
<tr>
<td>Dummy for 2012</td>
<td>-4.1690</td>
<td>0.000**</td>
</tr>
<tr>
<td>Dummy for 2013</td>
<td>-2.8443</td>
<td>0.000**</td>
</tr>
<tr>
<td>Dummy for 2014</td>
<td>-1.9630</td>
<td>0.017**</td>
</tr>
<tr>
<td>Wald Ch² (20)</td>
<td>902.18</td>
<td>0.000**</td>
</tr>
<tr>
<td>Arellano–Bond test for AR (2)</td>
<td>0.30</td>
<td>0.721</td>
</tr>
<tr>
<td>Hansen test</td>
<td>22.83</td>
<td>0.155</td>
</tr>
</tbody>
</table>

As one may observe from Table 2, we found no evidence supporting the TLGH for developed countries. However, we empirically confirmed the positive effect of investments and the openness index on economic growth. The interpretation of the positive effects of investments on economic growth is similar to the explanation for the developing countries. As expected, a rise in physical capital will lead to an increase in the economic growth rates for developed countries as well. Considering trade openness, developed countries are likely to have higher growth rates.
because they are more involved in international trade. Developed countries are saturated in terms of market potential; thus, not surprisingly, they are likely to have the potential to increase their GDP growth rates because they export their goods and services abroad. Furthermore, once again, we found that the 2008 and 2009 time dummies had a deterrent effect on these countries’ economic growth. In other words, while developing countries were negatively affected by the GFC in 2009, developed countries were negatively affected by the GFC in 2008 and 2009.

5. Concluding Remarks

While tourism industry development is seen as one of the most important factors shaping economies' well-being, few studies have explored the nexus between tourism and economic growth. In addition, these studies primarily disagree with regard to the actual influence of tourism on economic development. Therefore, this study aims to measure the effects of the tourism receipts of developing and developed countries on their economic growth rates by employing a one-step GMM estimation technique for the period from 2002 to 2014.

The study’s contribution to the existing literature is twofold: first, the effect of tourism on economic growth was primarily examined in previous studies by examining the causality between these two variables. However, economic growth has a dynamic structure and needs to be captured by endogenous variables. Thus, we employed a one-step system-GMM dynamic panel-data technique to deal with endogeneity. Second, previous studies mostly analyze developing countries, disregarding developed ones. However, we overcame this problem by decomposing the countries into two groups: developing and developed. By doing so, we were also able to deal with the heterogeneity of the cross-sections and to obtain more precise results.

We found no evidence supporting the TLGH for both developing and developed countries. However, we found strong evidence that the investment variable has a positive effect on economic growth in both developing and developed countries. In addition, we find empirical evidence that while technology has a positive effect on developing countries' economic growth, the open to trade has a positive effect on developed countries’ economic growth. Notably, we propose that policymakers must strive to implement policies that boost technology in developing countries and stimulate the degree of openness in developed countries.
### Appendix 1: List of the Countries

<table>
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TOURISM PHENOMENA IN POST-YUGOSLAV REPUBLICS FROM FORMER YUGOSLAVIA TO THE PRESENT DAY

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1. Ex-Yugoslavia as a Tourist Destination: An Introduction

Throughout the history, the Balkan Peninsula has served as an important gateway to many travellers heading for notable centres of commerce and curiosity like Jerusalem and Constantinople. But, South-Eastern Europe was rather considered like a peripheral place until the 18th century with the rise of a growing interest in the East, often called “Orientalism”. In 19th century, railway lines and thermal therapy sources enticed the development of tourism in the region, followed later by coastline tourism. Dalmatian Riviera of today’s Croatia had the primacy in this era, but other regions also witnessed the arrival of visitors and Thomas Cook company, discovering the touristic potential of the region, proposed the first organised trip in Bosnia in 1898 (Naef & Ploner, 2016: 181).

Between 1960s and 1980s, tourism had a new turn in Yugoslavia with the alternative way of development called “socialist self-management” or “socialist self-government” adopted by Marshall Josip Broz Tito, the iconic president of the Socialist Federal Republic of Yugoslavia (SFRJ). Under his rule, Yugoslavia experienced a relative openness compared to other socialist countries, which facilitated the arrival of foreign visitors, mainly the European tourists motivated by sun-sea and sand (3S) tourism, and even different forms of mass tourism appeared in some parts of the country (Naef & Ploner, 2016: 181).

2. Tourism Patterns until the 1990’s in Ex-Yugoslavia

Gosar (1989: 277) mentions that 8.5 million foreign tourists were visiting ex-Yugoslavia on an annual basis, who were generating about fifty million bed nights, using different accommodation types and making out of ex-Yugoslavia a country with a significant flow of foreign tourists traffic. He adds that, at that time, only seven European countries have recorded more foreign visitors and that among the “iron curtail” countries, Yugoslavia has ranked first in terms of inbound and outbound tourism. The mass tourism movements bringing foreign visitors to the country was related to specific factors like the favourable Mediterranean climate on the coastal side of the country and the ease of procurement of visas for most of the citizens of foreign countries (Gosar, 1989: 277).

Gosar (1989: 277) notes that foreign tourists’ expenditures were contributing to ¾ of the income of tourism enterprises and that the foreign
currency gained from tourism overnights was about 1/5 of the country’s total foreign currency earnings. Nevertheless, tourism didn’t contribute to the economic development of all the regions of the country in an equal or rather, equitable manner since all of the regions were not receiving foreign visitors evenly.

Gosar (1989: 277) observed equally that five main types of touristic areas would be distinguished, namely the coastal places (popular for most of the foreign visitors, that approx. 1/3 of them prefer); republic and provincial administrative centres, winter sports and mountain resorts; spas and wellness centres; and other touristic areas. Moorcroft (1979; cited in Gosar, 1989: 278) argues that during all of the post 2nd World War period, the Mediterranean-Adriatic coast of the country received regular visits from foreign tourists, (about 2/3 to ¾ of foreign visits to Yugoslavia) and that some particular places in Slovenia like Portoroz, in Croatia like Poreč and Dubrovnik; and in Crna-Gora (Montenegro) like Budva were standing out. As a matter of fact, it could be stated that only a small number of communes received frequent foreign visits in ex-Yugoslavia (see Figure 1) and that only 1/10 of ex-Yugoslavia’s territory served to generate all of the income from foreign tourists’ spending in the country (Gosar, 1989: 279).

Furthermore, Gosar (1989: 279) indicates that foreign visitors were tending to prefer hotels in accommodation sector, as more than 2/5 of tourists were recorded to stay at hotels, while a significant percentage of them (25.6%) preferred campsites and 17.3% of them opted for privately offered rooms. Here, Gosar draws our attention to the particular situation of ex-Yugoslavia, where landholding structure, especially on the Mediterranean coast of the country promoted remunerative investments at a low-price in private camping arrangements, a factor that enticed a relatively high number of both foreign and domestic tourists to choose to stay at campsites and it caused in its turn an increase in camping capacities on a regular basis (1989: 279). Hence, Gosar points out to a trend showing a decrease in the number of foreign visitors staying in hotels and an increase in the number of foreign visitors who prefer other types of tourist accommodations from 1965 to 1980’s (1989: 280).

In a similar vein, Gosar (1989: 280) notifies the existence of a tendency towards longer-term stays at individual tourist centres, altogether with a noticeable fall in tourists’ interest in educational or adventure travel to ex-Yugoslavia and declares to have determined this by consulting the brochures of both foreign and domestic tour operators and travel agencies (i.e., the number and type of tour proposals in these materials) as well as by analysing the tourists’ length of stay at a given place. Accordingly, he ascertains that Ex-Yugoslavia was a destination attracting primarily the type of tourists seeking sun, sea and sand (3S) holidays rather than a tourist
profile having a taste for adventure and discovery (1989: 280). It is a fact which can explain the development of mass tourism within this period at the expense of cultural heritage tourism, nature tourism or any kind of special interest tourism leading the way to explore niche markets and developing specific quality products.

Gosar (1989: 280-281) names five basic kinds of foreign tourism movements in ex-Yugoslavia in 1985 as follows: Stationary holidays; adventure travel; remigration; short-term transit; and special and other types. According to him, the first group consists of guests from Federal Republic of Germany and other countries visiting seaside regions; the second, of guests from GB, France and the USA, mainly visiting the central zones of the country; third, of emigrants who decided to go back to their homeland from Canada, USA or Australia; fourth, of official state visitors, transit passengers, consumers coming for shopping trips and excursions like Austrians and Italians living in border regions to Slovenia or Croatia; and fifth, of tourists coming for skiing, spas & wellness centres or international congresses taking place in different sectors.

Gosar (1989: 281) explains the reason for the reticence of local people to work in tourism sector at the beginning as their indoctrination during the post 2nd World War period and construction of socialist Yugoslavia as the industry was the only stable, viable and sustainable economic sector. That is only when big tourism enterprises started to invest on a large scale, integrating to their activities other economic sectors like service, crafts and agriculture, they broke down the old stereotypes and prejudices and gained confidence in growth politics through tourism.

In the conclusion section of his meticulous research, Gosar (1989: 283) contends that population growth, the share of the active population as a part of the total population, the degree of occupational restructuring and the share of active workforce in tourism sector (four criteria in total) provided the basis for establishing a spatial regionalization and a geographical typology on the impacts of international tourism movements on ex-Yugoslavia’s touristic zone along the Adriatic Sea, namely on Dalmatia and Istria coastal regions. Thus, he identified three demographic and spatial types influenced by tourism movements. According to him, (1) well-established tourist resorts were showing a planned and constant growth pattern in terms of touristic activities and also they had recorded an increase in the number of visitors over a longer period, where the majority of the population was earning their living from tourism related activities; (2) some dynamic touristic zones appeared along the Adriatic coast which developed tourism with the aims of preserving the settlement and generating jobs, where tourism became the main revenue generating sector or at least one of the leading sectors; (3) depressed touristic areas, referring
to some communes in the Mediterranean region which did not developed tourism for various reasons, where the employment in tourism sector was of seasonal nature and other sectors were more important revenue generators for the local residents.

**Figure 1.** Yugoslavia’s International Tourism in 1985  

3. **Post 1990’s War Dynamics in the Region**

Hall (2002: 323) argues that before 1989, Yugoslavia was a successful country in terms of tourism and had succeeded to build a positive and welcoming image of the country, especially to the Western mass tourism markets, which was destroyed by the fragmentation of the unitary state, and the subsequent armed conflicts had downturned any progress in the sector.
The wars following the disintegration of SFRJ during the 1990s had disastrous effects on the regions’ economy and on tourism sector in particular. Needless to say that some of the most important tourist destinations were destroyed, such as Dubrovnik that UNESCO designated as a world heritage site. Other regions like Kosovo, Croatia and Bosnia-Herzegovina containing a rich historical and cultural heritage were affected by the war seriously. After the war, as some of their regions were quite kept intact, Croatia and Slovenia were the faster recovering countries in terms of tourism, but new-born states heavily affected like BiH and Kosovo took a long time to recover and welcome visitors as before, especially due to the lack of sufficient funds and due to the obligation to give primacy to other sectors in the reconstruction of the country (Naef & Ploner, 2016: 181).

Croatia remains to be the most dominant country in terms of seaside tourism among the post-Yugoslav republics, as it has the larger part of the coastline on the Adriatic Sea, followed by Montenegro. Non-coastal countries rely mainly on their natural and cultural attractions, in particular on their religious heritage, like monasteries, churches, mosques and holy places of pilgrimage for both Muslims, Roman Catholics and Orthodox, some of them designated as world heritage sites by UNESCO (Naef & Ploner, 2016: 182), and which can be discussed under the “destination branding” heading, constituting serious landmarks. Furthermore, cultural heritage production seems to be promoted by the war, due to the conversion of the war heritage into a touristic attraction, often named as “war tourism”, “thanatourism” or “dark tourism”. This type of tourism is appreciated both by domestic and foreign visitors, particularly in places like Sarajevo and Vukovar, martyred and devastated by the war in 1990s.

In this context, “Yugonostalgia”, a term which can be described as a state of mind rather than a feeling is worth mentioning. At that point, Šuligoj (2018: 14) has conducted a research on the characteristics of tourism flow from Slovenia towards the other post-Yugoslav republics and tried to discover the effect of Yugonostalgia, a feeling which can be described as longing for the culture, habits, way of life, natural beauty, vacation forms and historical or political values of the former Yugoslavia on destination choice of particular tourist groups. Surprisingly, he has found out that people who prefer the other post-Yugoslav republics were not particularly motivated by nostalgia - contrary to the author’s expectations- but behaved like most of the tourists when visiting a foreign country: It means that they were mainly motivated by relaxing in nature, escaping from their daily routine and their responsibilities, assisting cultural and sporting events, entertaining themselves and tasting good food and beverages, consolidating their identity, having emotional experiences, visiting relatives, socializing with the host communities, visiting museums,
monuments and galleries, educating themselves, improving their language, discovering historical and cultural heritage belonging to their ancestors etc. According to Šuligoj (2018: 22), the low ratings that Yugonostalgia has had as a travel motivator might be resulting from the characteristics of the respondents in the sample which are composed mainly by people born after 1991, who never lived in SFRJ (Socialist Federal Republic of Yugoslavia).

4. **Tourism Under the Influence of Nationalist Discourses**

In spite of all the efforts that have been made to regain stability and, in a related way, to promote tourism in the region (i.e. all of the post-Yugoslav republics), it can be seen that the nationalist discourse still exists either in the brochures of tour operators, in the texts on websites or verbally, in the expressions of local guides, tourist authorities and other interested parties who are in contact with tourists. In this regard, Naef (2017: 1) admits that tourism can also be seen as a vector for nationalism and this fact becomes more apparent when associated with the cultural heritage of a nation. He tells us about two contradictory points of view that are at stake when it comes to cultural heritage: On the one hand, there are those who consider it a heritage of the ancestors and contemporary societies choose to adopt it or reject it. On the other hand, there are also those who see it as a production that serves the objectives of the present, i.e. to support contemporary causes.

It can certainly be argued that cultural heritage can be used to cover many contemporary needs such as creating a brand for a certain place or developing tourism in a specific region. Nevertheless, care must be taken to ensure that nationalist discourses that may damage relations and weaken ties with neighbouring countries and peoples are kept away from informational materials and tourist guides, which can only be detrimental to achieving the goals set for the development of a tourist region (Naef: 2017: 1). In this context, the problem in post-Yugoslavia seems to be rather the presence of a unilateral interpretation that risks fuelling nationalist dynamics even more than building a shared vision of the past that would serve the interests of all parties at present. In order to be able to examine these dynamics more closely, Naef (2017: 1) proposes to analyse the reciprocal relations that exist between currents of nationalism, war heritage and tourism.

In most cases, cultural heritage is considered as a mean to construct a national identity for a given people (Bui et al., 2011; Pretes, 2003; Hall, 2001 cited in Naef, 2017: 2). Still, Hall (2001: 325) indicates that the creation of new states all along with the upsurge of nationalist discourses has inspired some reconstituted countries’ governments to reinforce ethnic and national identities by means of heritage industry. In fact, Naef (2017:2) warns us of the risk of excluding certain groups at the expense of others in
the presentation of the monuments and museums of a region. According to him, in many cases, although many ethnic groups fought together to defend their homeland, some purposeful exclusion of one group and inclusion of another group (Naef, 2017: 4) is a common practice encountered in the interpretation of historical facts, aiming an idealization and selective simplification of the past. He states that while a certain group is represented as heroes or freedom fighters, another one is often called barbarians, drunks or invaders. As a result, the field of cultural heritage management became a fierce battle arena where various actors from different social groups clash for propagating their specific political agendas (Naef, 2017: 3). In like fashion, Hall (2001: 325) draws our attention to the case of Serbia’s tourism promotion under Milošević, which was based on promoting singularly Serb and Orthodox culture at the expense of other minority groups, which were excluded totally from the cultural landscape of the country. In this case, Serbian government used the international tourism as an effective propaganda tool to reinforce Serbian national identity, deliberately excluding the other constituent groups to build an ethnocentric image (Hall, 2001: 325).

In particular, Naef (2017: 4) indicates that, as a commemorative practice, tourism remains one of the key dimensions in the creation of narratives that refer to nationalism and tourism phenomenon and plays part in conflicts of collective memories (Naef & Ploner-2016: 182). In this sense, tourism actors and entrepreneurs in the sector tend to create some reproduced and specific discourses concerning the nation and the war which vary according to their belonging to an ethnic group, their identity, their nationality, the role they played during the recent war or again their purposes.

Another barrier that stands in the case of Bosnia and Herzegovina to the maintenance of historical tourist sites and monuments is the divided structure of government institutions. Due to the divided structure of the country in two parts as the Serbian Republic and the Federation of BiH ruled by Bosnian Muslims and Bosnian Croats, tourism is managed by different ministries and organizations depending on the entity in question. The Serbian authorities do not participate in the management of the museums that are located in the Federation of BiH and the establishment of a state institution that would bring together the three main national groups is considered out of question for the time being (Naef, 2017: 7). As a result, about six museum projects concerning the history of the war which took place at the 1990’s are managed by private companies or at the cantonal level in Sarajevo.

The main difficulty lies in bringing the antagonists together around a common project on commemoration issue by managing the tendencies of
nationalistic identification of the group members when it concerns the heritage of a war, especially if it is recent. Naef (2017: 9) points specifically to the cases of Vukovar city in Croatia and Alija Izzetbegović Museum in BiH and contends that in both cases the tourism sector has produced strong nationalist narratives which categorized victims and perpetrators, creating myths of national bravery or national guilt. The author denounces the over-simplification of facts which leads to a “guiding fiction” encompassing all, thus transforming places and figures into symbols (Naef, 2017: 9). Naef also points out that while Vukovar is identified with war heritage tourism, Croatian authorities try to safeguard the rest of the country from this war-torn image. According to Rivera (2008, cited in Naef & Ploner, 2016: 182), the war in the 1990s is omitted in a certain manner by Croatian authorities which follow active tourism politics to dissociate the country from its war heritage and construct a new identity, a new brand for the country emphasizing its Austro-Hungarian cultural and historical features rather than its Slavic or Byzantine aspects, in an effort of “Europeanisation”.

Accordingly, Naef & Ploner (2016: 182) contend that the new-born countries after SFRJ characterised by competing memories, reshape different stories about the past and an institutional, effective management of tourism in order to ensure the comprehension of memorial issues in the former Yugoslavia is essential. According to them, given the importance of history and the instrumentalisation of it in the region, the impact of the memory on tourism should be meticulously analysed. Although tourism has been recognised as a potential mean to establish peaceful relations between nations by international institutions like UNWTO, UNESCO and EC, they observe that tourism is also able to fuel the increase of tension associated to memories. “Reconciliation tourism”, “peace tourism” or “regenerative tourism” are the specified terms in the literature used to define the form of tourism which aims to overcome the lasting hostilities, resentments and trauma with the help of fusing touristic activities (Naef & Ploner, 2016: 183). Likewise, Hall (2002: 323) notes that the new independent states have to leave their socialist past behind in order to forge a new national identity to give confidence to potential investors and to help the economic reconstruction.

Furthermore, Tunbridge and Ashworth (1996; cited in Naef & Ploner, 2016: 183) emphasized the management of touristic sites and interpretation of heritage in the context of the term they have invented, “dissonant heritage”. They admit that dissonant heritage is a kind of heritage adopted by various and often conflicting groups of victims and perpetrators and their respective descendants, tourists, refugees, bystanders, witnesses, international non-governmental bodies, organisations with the purpose of preserving cultural heritage, etc. Naef and Ploner (2016: 183) defend that
tourism retains a certain force in itself to direct different audiences towards given attitudes and moral judgements, since it has an ideological influence in the assessment of the past and the power to use narratives. Concerning former Yugoslavia, the authors argue that well conceptualised grand narratives creating a distinct Balkan identity with a sauce of orientalism and more emphasized recent stories about war and its atrocities are issued from this natural force. Dragičević Šešić and Rogač Mijatović (2014: 13) point out the metaphors like “multicultural mosaic”, “crossroads”, “Other” or “bridge between civilisations”, which are used to reinforce established narratives and symbolic geographies by tourism and heritage interpretation methods. They believe that the politics of omission or oblivion could be converted into an active policy of collective memory, which would benefit the tourism sector immensely. To grasp the importance of cultural memory and to reshape the problematic relationships towards dissonant heritage is mentioned as a necessity for the revitalization of the tourism sector from the point of view of the authors (2014 :17).

For instance, Boym (2011; cited in Naef & Ploner, 2016: 184) comes with another proposition to discard conflicting symbolism on an ideological plan: He contends that the formation of a memory in appreciation of ruins, referred as “ruinophilia”, which he admits to be less “retrospective” and far from doing efforts to restore some imaginary pasts, but offering prospective views instead, would contribute to make an important progress on the matter.

Consequently, Naef & Ploner (2016: 187) recommend to the scholars to look in a more detailed manner to national case studies on the subject of tourism development, policies and heritage discourses, to be interested in pro-peace and reconciliatory kinds of tourism and to be involved in a greater number of longitudinal projects which would investigate the success and failure rates of the initiatives taken at all levels, from local to international.

5. Sustainable Tourism and Regional Development Issues in After 1990’s War Period: The Case of Bosnia and Herzegovina (BiH)

Šarenac et al. (2019: 207) aimed to test the hypothesis that “citizens’ education concerning the significance of sustainable tourism represents a fundamental approach for the further development of tourism” in the Republic of Bosnia and Herzegovina (BiH), but their hypothesis was disconfirmed according to the results obtained from the research they have conducted. Indeed, most of the respondents were considering the reduction of the environmental pollution as the most important instrument for the sustainable development of tourism in the region, as well as the incitement of active participation of all the stakeholders in the creation process of tangible and intangible tourism products specific to the region.
Particularly, the respondents emphasize the need for the participation of local governments, i.e. municipalities to this particular process.

In the context of this research, Šarenac et al. (2019: 214) measured the perceptions of the sample population based on three essential dimensions, namely the economic, socio-cultural and environmental ones, which refer to the three pillars of sustainability. Besides, they propose to include more dimensions like “technological sustainability, infrastructural sustainability, information, communication technology and stakeholder collaboration” for further research. They intended mainly to analyse the perceptions of local residents on sustainability issues by the intermediary of a survey over a one-year period and noted positive perceptions towards sustainable tourism development of this population. They also found out that all of the eight instruments they used to measure the perception towards the sustainable tourism development, namely “educating the citizens about the importance of sustainable tourism development; reducing the environmental pollution; maintaining the natural and cultural heritage; improving tourism management; establishing an integrated natural resource management system; enabling the public-private partnership model; ensuring active participation of all stakeholders, particularly local communities in the creation of tourism products and integrating completely the term sustainable tourism in the strategic planning process” were rated high by the respondents. Accordingly, the authors stress that “maintenance of natural and cultural resources” has been given a priority and considered as a critical issue in the implementation process of sustainable tourism. In the meanwhile, the authors express their surprise about the literacy of the investigated population on sustainable development issues and its manner of implementation in BiH territories.

As a result, Šarenac et al. (2019: 214) agreed on the necessity of the active implementation of all of the principles of sustainable development, for instance, the ecological, socio-cultural and economic ones. They advance that the latter are easier to apply in big cities of the country due to the existence of a broad range of tourism-related services and facilities, where the attractiveness takes its roots from the rich cultural and historical heritage of the region. An important factor making out of BiH an attractive tourist destination is its particular status of being a crossroads of different cultures and civilisations throughout the history. Deeply influenced by Roman, Illyrian, Ottoman, Slavic and Austro-Hungarian cultures, the region was also the scene of many battles of independence and national struggles during the First and Second World War, and later, in the nineties (Bidžan & Gekić, 2015: 887).

Above all, Šarenac et al. (2019: 214) emphasize the importance of the participation of the local communities and the public sector representatives
in conceiving sustainable tourism plans concerning the development of the region. In this context, it’s expected from the public sector to organize training activities and to fix a sustainable development policy to arouse interest among stakeholders and bring them together to realize sustainable development. Similarly, the population has to grasp the importance of the benefits of a sustainable development policy in order to support effectively the efforts of the public sector and its policy.

According to Šarenac et al. (2019: 214-215), the most important problems that BiH faces concerning the development strategies are the lack of understanding of the vital importance of long-term planning, i.e. plans covering a period of at least ten years; the lack of a long term vision on development issues; and likewise, the lack of quality standards and policies in the conception of tourism development strategies. In fact, they denounce the neglected attitude of the state administrations all along with the disinterest of the local governments on this matter. But above all, they remind that the positive attitude of the local population incites the adoption of sustainable tourism practices in the region and recommend to invest further in natural and cultural heritage, to encourage the participation of all concerned parties to the creation of unique tourism products and give importance to the training of human resources in the sector. Consequently, they recommend to the tourism planners and related authorities to develop strategies and action plans which would facilitate and promote the utilisation of tools for the establishment of sustainable tourism practices in BiH.

Nurković (2010: 202) states that the actual situation of peripheral rural areas reflects better the level of tourism development in BiH than the urbanized centres. These underdeveloped regions are subject to migration, loss of workforce and wealth. He proposes that tourism, as a revitalizing factor, must be encouraged to retain the working population in the region, to improve the infrastructure and to boost other activities to contribute to the regional and national economy as a whole. Though Bidžan and Gekić indicate that BiH possess different and attractive human-induced and natural tourist motives which are next to each other and create a mosaic (2015: 887), Nurković (2010: 203-205) observes that the rich natural, cultural, historical and man-made resources of BiH have been little valorised concerning the touristic issues, which are the most important factors in the formation of the tourist supply. He also points out to another particularity of the region, which is mostly characterised by “open air museums” like authentic houses, historical bridges, unique architecture and traditional life deeply marked by a fusion of many cultures, rather than by the exhibition of objects in conventional museums like in many European countries. Likewise, Bidžan and Gekić (2015: 886) consider that although BiH records a positive trend for main indicators of economic
growth, it is unable to use its potential in full-extent. They list the key strengths of the country as natural resources favouring outdoor tourism, rich heritage and history, geographical position, internationally renowned events, gastronomic offer, affordable prices, and the fact of not being yet an overfrequented destination. The researches also indicate that BiH is defined by WTO among three destinations in the world, with a 10.5% potential of growth for the tourism market. Nevertheless, the tourism sector’s base value is dramatically low in BiH and it represents only 0.2% of the European tourism market.

Nurković (2010: 206) suggests that the region has a quite well preserved cultural inheritance for the time being, but compared to the neighbouring countries, the factor of protection asking legislative requirements is relatively weak and the percentage of the protected areas must rise. He also mentions the traffic factor as a precondition for tourism development. According to him, the bad condition of the railway destructed during the war and which still remains unconstructed, the nonexistence of highways and the primitive state of local and regional roads deter potential tourists to explore the region further.

In terms of tourism development, it should be noted that the geographic location factor has crucial importance. BiH is located on the eastern tourist corridor through which tourist movements from Europe to the Eastern Mediterranean region take place. Thus, it could be concluded that BiH has an intercontinental tourist-geographical position given that the eastern route links Europe and Southwest Asia (Bidžan & Gekić, 2015: 887). Furthermore, due to the fact that BiH has three borders with neighbouring countries, namely Serbia, Croatia and Montenegro, having good relations with all of them is important for the tourism development of the country. Indeed, the transit characteristic of BiH is significant for the development of tourism. Given that the transport network passing through a country is associated with the costs and profits, the functionality of BiH is also affected by its infrastructure and transportation network. Therefore, ensuring the construction of road links with the neighbouring countries and the integration of BiH in international road communication systems is a must for building strong economic relations and for tourism development. Here, Bidžan and Gekić (2015: 888) admit that the most important factors for a tourist to choose a certain road are the capacity and quality of the road, as well as its position in relation to interregional and international routes. Bidžan and Gekić (2015: 888) also mention that the routes of BiH do not support the heavy traffic flow of European routes in many sections due to the small radius bends, passing from settlements and inadequate maintenance. Thus, referring to the data retrieved from the web page of the Ministry of Communication and Transport of BiH, Bidžan and Gekić (2015: 888) conclude that improving and updating the existent railway
lines connecting major tourist destinations and constructing quality road connections is a prerequisite for tourism development in the region.

Additionally, Nurković (2010: 206-207) claims that tourism personnel and supplies are the key strengths of BiH, but safety, especially in terms of minefields still remains as a major problem in attracting both foreign and domestic tourists to the region. He indicates that investment in tourism field is a must to protect efficiently the assets of the region and to awake the interest of potential visitors. Yet, foreign guests visit regularly all tourist destinations of BiH. Nurković (2010: 207) note that German, Italian and Austrian tourists record the highest overnight stays in the region and they are followed by Croatians. The share of state and private income from tourism has shown a moderate growth compared to the total income of the country.

According to the property analysis Bidžan and Gekić (2015: 889) have conducted, more than 75% of facilities in BiH consist of hotels and motels even though they suggest the existence of an important number of other facilities in the grey economy. According to the data they have retrieved from the Agency of Statistics of BiH, they indicate that almost 90% of all registered visits, 83% of all overnight stays take place in hotels and motels (2015: 889). They also add that the actual number of arrivals and overnight stays of foreign visitors on an annual basis is higher than the declared official statistics in a significant manner (2015: 891).

Nurković (2020: 211-212) classified the factors affecting tourism in BiH under four main groups as governmental, environmental, market and entrepreneurial factors. According to him, government should stimulate the creation of favourable ambiance for tourism growth, create conditions to attract the investments to the sector, improve the education for tourism, give financial incentives, establish policies and institutions and promote the sector. Similarly, he notes that the environmental factors like the overall economic growth – income per capita balance, infrastructure and superstructure development, spatial decision-making capabilities, tax and labour laws, privatisation, regulations, institutions and destination marketing efforts deeply influence the touristic movements and tourism development in the region. Next, he argues that market factors like the level of demand for touristic services, eagerness of competition, composition of actors of supply and demand, type and quality of services, offer of tourist services and the dynamics of labour and capital market are equally important for this purpose. Finally, he enumerates the entrepreneurial factors influencing tourism development in the region like investments in tourism, using the opportunities, development of small and medium enterprises and family-run businesses, foreign direct investment,
marketing and branding of tourist offers, profits obtained and return on investment.

In a similar vein, Husukić and İlgün (2014: 74) stress that BiH should consider the tourism sector and touristic revenues as a contributor to the overall development of the country’s economy under the actual conditions of worldwide economic crisis and it is worth mentioning that the pandemic of Covid-19 arisen in 2020 has worsened this situation. According to the results of the research they have conducted (2014: 78), they reached some conclusions on the potential tourism types that could be developed in the country, referring to the views of both local residents and foreign tourists. Of the seven different tourism types proposed (cultural, historical, religious, sport and recreation, event, marine and other types or tourism), 35.1% of local residents and 43.3% of foreign visitors contend that the most contributing forms of tourism to the total achievements of national tourism would be cultural and historical tourism. On the contrary, respondents are abstentious about the contribution of marine and event tourism, and think that they have not enough qualities to be developed. Nevertheless, local residents show a more optimistic attitude towards the development of event tourism and 15% of them think that there exists a potential to develop event tourism in the region, and they argue that the lack of advertisement and information about the events is the main reason that this type of tourism is not attractive enough for foreign visitors (2014: 78). In this respect, it could be advanced that well designed and functional, regularly updated web sites in foreign languages which would provide potential visitors with a continuous flow of information about the events to take place would be beneficial. Likewise, Bidžan and Gekić (2015: 886; 891-892) identify the potential areas for tourism development in BiH as cultural and historical tourism, urban tourism, eco-tourism, rural tourism, outdoor tourism (naturism, lake, river), winter sports, recreational and mountain tourism, speleological tourism, photo-safari, hunting and fishing, nautical or maritime tourism, health tourism (spa and wellness centres), conference and business tourism, archaeological tourism, educational tourism, religious tourism and adventure tourism.

As for the advantages of tourism movements in BiH, Husukić and İlgün (2014: 78-79) have also found that 46.3% of the local residents assert that the nature and morphology of the country are its strongest assets. Cultural and historical heritage (17.5%), hospitality of local residents (15%) and frequency and number of events (21.3%) are other attractive factors according to the local population. Conversely, foreign visitors give primacy to the cultural and historical richness (34%) and 50.9% of them opt for nature and hospitality factors jointly. The researchers confess that they are surprised by the opinions of respondents about the tourism infrastructure problems. In fact, only 15% of local residents and 20.8% of
foreign visitors claimed that it was representing a disadvantage for tourism development in the region. The researchers assume that accommodation capacities and transportation infrastructure need renewal but they must be taken in hand as a part of the whole tourism infrastructures in BiH.

Husukić and İlgün (2014: 81) conclude that the main problem of BiH remains as an urgent need for a strategy of tourism development. In this context, it is crucial to identify the potential economy starters and the areas of greatest opportunities. Hence, they recommend a segmentation in terms of tourism offerings and touristic destinations. According to them, the visitor has to find the destination he/she visits "unique" for him/her. They also point out to the need of political stability to ensure an effective organisation of the tourism sector altogether with all economic activities. The reimagining of the country is also important by means of a good marketing and promotion strategy, in order to wipe out the bad memories of the recent war. For instance, destination branding seems to be an effective mean for the promotion of cities but it has to be kept in mind that sufficient financial funding, time and organisation are the key points for the success of a branding strategy. Consequently, the researchers allege that BiH has all of the required resources and qualities for the development of the tourism sector but needs heavy investment and efforts to induce change.

6. Second Home Ownership Patterns and Its Evolution from Ex-Yugoslavia to Nowadays

It can be maintained that second home construction gained intensity in 1960’s in Socialist Federal Republic of Yugoslavia (ex-YU). The fact that state owned banks were offering favourable loan conditions, and land and real estate prices were low at that time could be mentioned as the main motivators for this phenomenon. In addition to this, people were buying, constructing, converting and renovating second homes for spending time with their families, relatives and friends during their vacations. When compared to spending holidays in a hotel, this type of accommodation was far more affordable and useful for that purposes. Accordingly, the high inflation rate and volatile currency seem to be the other factors which incited people to invest in real estate. Thus, the typical second home in ex-Yugoslavia was built as a family-type vacation house, often by using self-managed construction methods.

But after 1991, following the period of disintegration of the common state, the previously quoted dynamics changed suddenly and substantially. The newly formed states, while experiencing a new development vague, faced also wars which overturned the paradigms. As a result, new forms of accommodation facility models like multi-apartment recreational buildings appeared in coastal and mountainous regions or in the areas near to the big
cities. This new type of recreational buildings is favoured by the flourishing of private building entrepreneurship and used frequently with commercial purposes (Opačić & Koderman, 2017: 1).

Opačić and Koderman (2017: 7) also suggest that wars have divided nations and regions which in turn remodelled second home development patterns in new-born independent states. Another negative effect of this evolution was the substantial increase of the second home prices, a phenomenon which put them out of reach of the middle working classes and made out of them only a privilege for the rich. Accordingly, the demand which was mainly domestic in the past is replaced by international demand as the real estate market was opened to the foreigners. The most characterized states by second home building and development in both ex and post-Yugoslavia are observed to be as Croatia, Slovenia and Montenegro so the authors put a special emphasis on second home development history and patterns in Croatia (especially on Istrian and Dalmatian coasts) and in Slovenia. With the membership of Croatia and Slovenia to EU, citizens of European countries began to prefer buying vacation homes in Croatia and Slovenia. The authors mention that the Istria region of Croatia has primacy over Dalmatia, due to the better road connections, highways and infrastructure.

Opačić and Koderman (2017: 7) point out to a powerful construction lobby and a free real-estate market gaining surface after the regulated period, which generated in their turn the creation of speculative and mainly commercial motivation on the purchase of second homes. Subsequently, they claim that second home development patterns have shifted dramatically in the last fifty years and the second homes once affordable to most of the citizens of the ex-Yugoslavia became nowadays a privacy for the wealthier classes and foreigners.

7. Destination Branding: A Panacea for Economic Revitalization?

According to Hall (2002: 323), a national Yugoslav brand has emerged for the first time during 1960s and 1970s, thanks to the international tourist arrivals to the coastal regions of the country. After the fall of Turkish Ottoman and Austro-Hungarian Empires dominating the region, the new Yugoslav kingdom was established in 1918 and the tourist arrivals to the country date back to the 1920s. Known as a mosaic of ethnicities, Yugoslavia was a tough mixture of southern Slav and non-Slav peoples gathered to form a new state which would stand between East and West, but the politically influential group were the Serbs. After the 2nd World War, the Yugoslav State was reconstructed by Marshall Tito as a socialist federal republic, who chose to follow a relatively independent way within the
Eastern bloc, a choice that caused to break up totally with Moscow in 1948 and being expelled from Cominform (Hall, 2002: 324).

Up from the mid-sixties, thanks to a new constitution and issued legislations, the number of Yugoslav citizens working abroad and private and foreign investments made in critical sectors like tourism has grown dramatically. Moreover, the Adriatic Highway built between 1961 – 1965 with the subventions of Western governments had important contributions in enhancing touristic movements, awakening international interest that resulted in more investments on the coastal regions. Consequently, tourism receipts, all along with the money brought by Yugoslav citizens working abroad, constituted half of the foreign currency sources of the whole country. Yugoslavia has started to appeal to European mass tourism markets, especially with its coastal regions on the Adriatic Sea supported by its Roman and Venetian cultural and historical heritage at the expense of inner regions of the country mostly characterized by natural beauties and Ottoman heritage. Towards the end of the eighties, the country has begun to generate more tourism income than the rest of the Eastern bloc countries combined (Hall, 2002: 324).

During the 1990’s, a period marked by conflicts and war trauma for Yugoslavia, Central and Eastern Europe was subject to a serious post-communist transformation process during which small to medium size national companies seized opportunities to develop high value-added tourism products appealing to special niche markets and adapted to Western tourists’ changing demand characteristics. As soon as Slovenia and Croatia gained a relative stability by the mid-nineties, they undertook to construct their image in order to attract foreign investments, foster tourism development and be accepted as a part of the Western civilization (Hall, 2002: 324).

Hall (2002: 325) points out to three particular motivations for branding in post-Yugoslav Republics, namely the search of adaptation to changing economic and political conjuncture; the close relationship which ties up national identity to touristic products and destinations branding; and the advantages that a re-imaging in political and economic terms would bring to the country in the integration process to EU mechanisms and in attracting more foreign investments to strategic sectors, including the tourism sector. According to Hall (2001: 325), post-Yugoslav countries like Slovenia and Croatia spend some efforts to get rid of their “Balkan” identity, which is often associated with conflict and an extension of Ottoman-Muslim heritage in the Western world, to emphasize that they are a part of Europe, sharing the same religion and Austro-Hungarian and Roman cultural roots as Central and Western Europeans. They also try to appeal to niche markets (like wine-gastronomy, cultural heritage or nature
tourism) and to wealthier tourist groups, leaving behind their obsolete image of cheap mass tourism destinations (Hall, 2001: 328-329).

Hall (2001: 325-326) emphasizes particularly three important constraints which could hinder the branding efforts of post-Yugoslav countries as (1) a lack of sufficient funds / financial means and a lack of experience, knowledge and expertise of global marketplaces to carry on effective marketing campaigns; (2) lack of time because of rapid reconstruction and re-imaging needs after the conflict period, a handicap that urged the governments to give primacy to short term plans instead of focusing on long-term strategies required to build a consistent image of the destination and of the tourism products; (3) the fact of decentralization after the relatively authoritarian and centralistic, unified Yugoslavia of Marshall Tito, which resulted in experiencing difficulties in constructing a coherent destination brand image in the heart of a fragmented market, characterized by a multitude of environments and products.

In their efforts for re-branding their national tourism products, the economic and political transformation towards a European identity and the search for new products and experiences in leisure markets helped the post-Yugoslav republics a lot. These re-branding efforts have appeared at two principal levels: National and local (destination) levels. While countries emphasized some attributes which would facilitate their acceptance by the Western world like security, accessibility, uniqueness and sustainability in ecological terms especially at a national level, they have opted to promote their main cities as urban cultural destinations characterized by their European heritage and constant progress to attract both tourists and investors (Hall, 2001: 327). Moreover, thanks to the opportunities offered by recent technological development, post-Yugoslav republics have been able to disseminate their marketing messages through imaginative websites and social media to many new audiences throughout the world (e.g., www.croatia.hr; www.slovenia.info; www.montenegro.travel; www.beikosovo.com; www.serbia.travel; www.macedonia-timeless.com, etc.)

Although Porter’s “differentiation” and “specialization” strategies were adopted widely by post-Yugoslav states in recent periods; the “cost leadership” strategy cannot go unnoticed at all, since there is a considerable demand from Russia and Central European States for mass tourism for those newly established states’ tourism products. Hall (2001: 328) advocates that “cheapness” argument was still in use at the first-half of 2000’s in a paradoxical manner by certain countries in the region as they were striving for appealing to the wealthy tourists in the search of niche markets. In fact, the post-Yugoslav republics have to rebuild their touristic images on the axis of niche segmentation (both for environmentally and
culturally motivated groups of tourists) rather than a national mass market destination if they wish to get rid of the negative connotations of the past and host wealthier groups of visitors, thus to generate more national income (Hall, 2001: 332). Above all, quality and consistency components of the destinations’ image have to be established and effective market research should be undertaken to discover the real motivation of the potential visitors to the region. Coordinated efforts between governments, tourism sector and all related parties reveal to be a prerequisite in building a consistent image of a destination which set out quality and uniqueness attributes, on the way which leads to the development of a product-based destination brand. In this sense, building efficient networks, creating effective partnerships with a collaborative attitude would enable a better integration of local, regional and ultimately, national interests to meet every country’s objectives in the region: To generate more income from tourist business by attracting a higher profile of visitors and to attract foreign investment to strategic sectors including tourism.

8. Methodology

In this paper, the method of extensive literature research has been used to collect and analyse relevant data on the subject of research. By collecting and synthesizing previous research in a systematic way, the author aims to show evidence on a meta-level and to point to the areas in which advanced research is needed, in order to facilitate the creation of theoretical frameworks and conceptual models for future work (Snyder, 2019: 333).

9. Conclusion

In its historical progress, tourism phenomena have shown *sui generis* patterns in both ex-Yugoslavia and post-Yugoslav republics, distinguishing the region from the neighbouring countries in a significant manner. It may be due to the fact that the country broke-up with Cominform in 1948 and then followed a totally different path for its development called “self-management” under Tito’s government (Pavlović, 2011); to its multi-ethnic and multi-religious demographic composition making out of it the cradle of many different civilizations and cultures throughout the history; to its being a transit region between the Middle-East and Europe; to its long coasts along the Adriatic Sea, altogether with its cultural, historical and natural richness’s in both coastal and inner regions.

From 1960’s through the end of 1980’s, the country built its tourism strategy mainly on hosting foreign visitors in its coastal regions, particularly in Montenegrin, Dalmatian and Istrian coasts. Winter sports in Sarajevo and alpine excursions in Slovenia also attracted foreign tourists, but the predominant form of tourism remained as “mass tourism”, and inner regions of the country with noticeable historical, cultural and natural
curiosities were quite unexplored by foreign tourists during this period (Grandits & Taylor, 2010).

The 1990’s were marked by armed conflicts which ended with the disintegration of the country and in the following years, the new-born republics tried to adjust their tourism politics to the requirements of the new dynamics in the tourism market. In this context, a growing demand for special interest tourism or niche tourism like gastro-tourism, wine tourism, cultural and creative tourism, event tourism, nature-escape tourism etc. has gained surface and sustainability (with its economic, social and environmental pillars) and the environmental protection issues gained visibility, becoming the most debated subjects (Hall, 2004).

In this respect, the need for brand-new tourism strategies became prominent for the new Yugoslav republics: Building efficient mechanisms and adopting plans in total consensus at national, regional and local governmental levels for sustainability purposes; providing natural and environmental protection; applying efficient policies for cultural and historical heritage protection reveal to be the most important issues. From this perspective, it’s crucial to adopt a common language for heritage promotion and to prevent “dissonant heritage” connotation created and used by conflicting groups in order to ensure the use of a standardized and objective discourse concerning cultural and historical heritage (Naef & Ploner, 2016).

Furthermore, sufficient funds must be raised to support effective re-imaging and destination branding efforts of communities for all the regions in order to attract tourists showing a higher profile with more spending power and to be able to propose more “tailored to the needs”, more specific tourism products to those visitors with special interests, more prone to be attracted by niche tourism activities. In a similar fashion, the new republics have to counterbalance mass tourism movements and special interest tourism for sustainability matters (Robinson & Novelli, 2004).

Likewise, an equal distribution of touristic movements and consequently, of tourism income to all of the concerned regions must be realized to balance the development pace among republics and to attain further regional development. Attracting foreign and domestic private investment to the sector and tourism education for the locals are other crucial issues which require a total coordination and harmonisation between governmental mechanisms influencing the sector (Li et al., 2016).

Another critical issue to be addressed with care is the “concrete jungle” problem experienced unfortunately by many countries in our days. With joined efforts of all levels of government, local residents and private sector, touristic regions in post-Yugoslavia must be preserved from over-
constructing and shanty settlements (Marinov et al., 2019: 63; Lickorish & Jenkins, 2011: 85).

References


(UN)EARTHING THE COLONIAL IDENTITY IN
A PASSAGE TO INDIA BY E. M. FORSTER

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1. Introduction

A Passage to India, a post-colonial novel which was written in 1913 and then revised and completed in Forster’s second visit to India in 1921, was published in 1924, nearly after eleven years since it was first penned by E. M. Forster. The title of A Passage to India, taken from Walt Whitman’s poem of the same name, suggests that Forster seeks some path to understand India, which is ironic, as no passage seems to be possible neither epistemologically nor socio-culturally between the colonized and colonizer. The time Forster had been to India (from March 1921 until January 1922) was predominantly significant in the history of British India since the nationalist agitation (revived immediately after the war and precipitated by repression and massacre in the Punjab) reached a climax point in the year 1920. At that time, not only Gandi’s non-cooperation movement, protesting against the Punjab massacre but also the British injustice to the Moslem sentiment in India over the Khilafat issue had a deep effect on the country. The success of these two movements was at its highest point during the months Forster was in India (Ganguly, 1990: 42).

As a philanthropic, Forster himself was in favour of Civil Disobedience. During the last two weeks before Forster’s departure, the policy of civil disobedience was implemented in many parts of Andhra, in the vicinity of Hyderabad where Forster was staying after leaving Dewas.

Having observed the triumph of Non-cooperation movement, Forster witnessed how Britain as an empire compromised demands of the Indian subject and how the British government’s policies underwent a remarkable change. To Das, “the British officials had been subdued, and had become courteous, and some were even respectful towards the Indian” (1977: 20) to a certain degree. Nevertheless, the past mistakes in India make it impossible to (re)structure a society in egalitarian terms in a colonial setting. Because “[...] the great blunder of the past is neither political nor economic nor educational, but social...” (Forster, 1922: 614). According to his view, one of the major factors responsible for the conflicts between the two communities is the social gulf between the Indians and the Anglo-Indians.

Raghavan Iyer also analyses mainly four doctrines about the imperialism in India in his work: The Burkean doctrine of imperial
trusteeship, the utilitarian doctrine of state activity, the Platonic idea of a ruling elite and the Evangelical belief. At the end of his analysis, he concludes that all his doctrines derive from one main assumption: that Britain was superior to India and had power for her own well-being (1960: 9-71). This imperialistic argument, which justifies despotism in India, can be considered as the root of social friction between Englishmen and Indians. According to Das, the epitome that “Forster would have liked to see imperial Britain fulfil in India was the creation of a democratic empire” is to do with rebuilding “an equal, multiracial and integrated society” where both “Indians and Englishmen living in India enjoy equal rights and privileges and live unrestricted by racial differences as individuals and as friends” (1977: 24-25). However, Forster never believes that a superficial political concession could undo the damage that had already been done by the imposition in India of the imperialist system and doctrines in India in the past.

As far as social mistakes are concerned, the perspectives of the British also give some insights on the colonial India. For instance, James Mill in his work entitled History of British India explicitly states that India is “a hideous state... tainted with the vices of insincerity; dissembling, treacherous, mendacious, to an excess which surpasses even the usual measure of uncultivated society” (1820: 195), namely a statement which accuses Indian culture and civilization. Moreover, Macaulay as a member of Committee of Public Instructions in 1855 in India and a man who laid the foundation of English education in India, believing in the “intrinsic superiority” of Western literature and science, asserts that “a single shelf of a good European library was worth the whole native literature of India and Arabia” (1943: 78-79). In the Imperialist years, about Alfred Milner, whom George Curzon during his foreign secretarial work sent to Egypt in May 1919 as Head of Imperial Mission, Forster believes that Milner was “known as a militant Imperialist, who sincerely believed that the world would be happier if they were ruled by the British upper-middle classes” (Das, 1977: 29).

A Passage to India, being among one of the 100 great works of 20th century literature by the Modern Library, have been analysed from a wide variety of perspectives in literary spheres. Many critics have dissenting opinions about the novel in general. For instance, to critic F. R. Leavis, the novel itself is “a classic of the liberal spirit” (1962: 277) whereas to Davies it just “expos[es] the impotence of humanist decency in the face of racism” (2001: 43). For Elinor Wylie, a writer of historical novels, “A Passage to India is poetry, as it is also melodrama, and philosophy and ‘realism,’ if that word by any chance means life” (1924: 277). Undeniably, the novel is about the futility of attempts at social rapprochement between the English and the natives in India. Moreover, to Baker, the novel is about “the
psychological dilemma of Anglo-Indians who wish to call India home” (2006: 68). Furthermore, to Brandabur (1993), the novel exposes destructive impacts of racism among people and pathological situations that existed in imperialism. Besides, to Robbins, “There is no one order of reality which is the truth about India, no single entity which represents the ‘real’ India… (2003, 204).

As a novel sliding “between both realist coherence and modernist fragmentation” (Koontz, 2015: 136), A Passage to India presents a wide range of characters with their distinguishing identities in a colonial setting. According to Michael Bell, the reason of Forster’s bringing together a number of different people from different cultural background is about his preference on “thematizing of conflicting world views” as he wants to show that “different world projections are not a matter of internal psychological conflict so much as the institutionalized traditions of different world religions: Christianity, Islam and Hinduism” (1999: 24). Because the late colonial India, which was situated in the intersection of intense cultural overlaps along with ideological exchanges, illustrates the intricate relationships between the ruler and the ruled. Since India itself includes many different people from different nations, religions and races such as the Hindus, the Muslims, and the British, an amalgamation of Islam, Hinduism, and Christianity is dogmatically presented through scenery, constructions, characters and celebrations in the novel. Forster exemplifies Islam and Christian as well as Hindu beliefs as leitmotif to convey the hybridized elements which reshape the identity of the characters because of their close interaction. By presenting the collaboration of various religious groups against the British, Forster correspondingly shows signs of cynicism on how these divergent groups come and work together by presenting the British as a very thing which is convenient for “a forced togetherness” (Drake, 2017: 43) in a colonial setting, where identity of the characters is (re)formed repetitively.

2. Imperial and Colonial Discourse

Edward Said makes a clear definition on imperialism and colonialism: “‘Imperialism’ means the practice, the theory, and the attitudes of a dominating metropolitan centre ruling a distant territory; ‘colonialism,’ which is almost always a consequence of imperialism, is the implanting of settlers on distant territory” (1994: 8) by emphasizing the role of distant territory. According to Ania Loomba, “colonialism [is] the forcible takeover of land and economy, and, in the case of European colonialism, a restructuring of non-capitalist economies in order to fuel European capitalism” (2005: 23) and thus, colonialism is to do with power and hegemony. Besides, Homi K. Bhabha demarcates the concepts such as ‘us’ and ‘them’ in order to validate the unequal relationship between ‘the ‘colonial power’ and the ‘colonized spheres’ as well as between ‘the
coloniser’ and ‘the colonised’ (1994: 70) by unearthing the concepts of identity such as ‘Who am I?’, ‘Who are we?’, ‘What is a person?’, ‘Is there such a thing as self?’, etc. from the perspectives of colonialism and imperialism. Additionally, on the issue of colonial identities, Anne McClintock concludes that “no social category exists in privileged isolation; each comes into being in social relation to other categories, if in uneven and contradictory ways” (1995: 9) in her work. Moreover, Stuart Hall reveals that identity is significant when it is always positioned in a particular context, namely “constituted within, not outside, representation” (1996: 110) by means of a particular discourse. Accordingly, an individual (re)establishes his/her identity within the hegemonic power in a colonial setting through the use of colonial discourse, which is “more dramatic, more intriguing, more neurotic and erotic” (Sabin, 2002: 6). The colonial discourse also signifies the power. In other words, in a colonial setting, the colonizers use the discourse which exerts their power on the colonized. Thus, in such a circumstance, namely being under the strong influence of the coloniser, the discourse used defines the people of the West as supreme and powerful whereas the East is as ‘the other’.

The concept of identity is profoundly connected with power and subaltern in colonial discourse. By borrowing the Freudian term “uncanny” (Freud, 2003: 124), Bhabha describes the cultural differences between the coloniser and the colonised. The term is commonly used in the sense that when a place does not meet with the expectations of an individual or else, there stands an incongruity between the expected and the reality, as is the case in A Passage to India. Furthermore, in Freud’s essay, German terms ‘heimlich’ namely ‘homely’ or familiar is used in the sense of “what was once well known and had long been familiar” and ‘unheimlich’, namely ‘uncanny’ or unfamiliar, is used in the sense of belongingness to “the realm of the frightening, of what evokes fear and dread” (2003: 123). These distinctions between the known and the unknown and/or comforting and shocking are employed in Bhabha’s essay to demarcate the concepts of culture and cultural authority. To him, culture is familiar “with its disciplinary generalizations, its mimetic narratives, its homologous empty time, its seriality, its progress, its customs and coherence” whereas cultural authority is unfamiliar as “it has to be translated, disseminated, differentiated, interdisciplinary, intertextual, international, inter-racial” (1994: 195). These two concepts illustrate postcolonial conditions of the individuals in the colonial settings as the former indicates the ideality of a culture, the latter suggests somewhat chaotic and complex.

A Passage to India, an exemplification of so-called internal liberation of the characters in a setting where imperialism and colonialism are the two dominant elements in (re)shaping the identity of the characters,
epitomizes both colonial and imperial discourse. By employing a number of incidences to illustrate how culture and cultural authority are virtually (dis)similar to each other, Forster purposefully exposes the ideological differences which are completely the results of sustaining and regaining power between the two cultures. However, interaction of divergent cultural values between the colonized and the colonizer results in (re)forming a new type of identity, namely ‘colonial identity’ as well as ‘imperial identity’. In other words, colonialism destroys all cultural orders and borders while it attempts to re-create and re-establish new ones by introducing new cultural identities, all of which are both ‘heimlich’ and ‘unheimlich’. Thus, the interaction of two agents, who have completely dissimilar cultural values, leads to the emergence of ‘hybrid cultural identity’ (Appadurai, 1995) in postcolonial settings.

3. Discussion

A Passage to India depicts Forster’s ideological sympathy for the less fortunate masses on the surface. However, in its deeper meaning, the novel reveals Forster’s continual siding with the socially marginalized and politically oppressed groups as an implication of his liberal humanism. Structurally, the novel involves three parts entitled “Mosque”, “Cave” and “Temple”, each of which explicitly narrates the identity of the characters with their unique aspects. Forster, by classifying two conflicting groups, namely the Indians and the English, the East and the West, the colonized and the colonizer, simply juxtaposes the identity of the characters on a broader canvas. Thus, the theme of the novel mainly revolves around one typical question whether there is a connection among these three groups or not. Wilfred Stone reveals the distinctive features of the Indian society by symbolically referring to mosque, cave and temple: “the three sections emphasize certain qualities of mind and soul – to the Moslem belongs the emotional nature, to the Anglo-Indian the intellect, and to the Hindu the capacity for love” (1966: 311).

The first part of the novel portrays the city of Chandrapore and the neighbouring area by describing extraordinary Marabar caves. In the novel, space, that is to say, distinctive locations, explorations or crossing borders, becomes one of the most important elements that affects both colonial and imperial identity, which are profoundly dealt with borders. Because it is improbable to isolate identity from borders in a colonial setting. According to Urano, “Forster turns his tourist gaze to the East, and sees India as a space escaping the epistemological cartography of the West” (2010: 126). The distinctions between the characters, particularly the identity of British and the Indians are presented through the distance of their own dwellings. In other words, the distance portrayed between the Indian city of Chandrapore and the British colonial buildings indicates that the English prefer to be disconnected from the Indians.
The identity of the colonized is initially revealed in the scene where a group of Indian men are discussing about cross-cultural friendship “whether or no [sic] it is possible to be friends with an Englishman” (Forster, 1924: 6-7). The discussion held at Hamidullah’s house among Dr. Aziz, an Indian Muslim whose wife died at an early age and left him with three children, Hamidullah, who studied at Cambridge, and Mahmoud Ali, a poor lazy relative of Hamidullah unambiguously discloses the perspectives of the colonized on the colonizer. During the discussion, whereas Hamidullah advocates that cross-cultural friendship is only “possible in England” as he has “received a cordial welcome at Cambridge”, Mahmoud Ali believes that “It is impossible here [India]” (Forster, 1924: 7). As indicated, the Indians have prejudices against the Englishmen as they have not had any interactions with them outside of India. For them, it is impossible for Indians and Englishmen to be friends as one of the natives insistently states, “They all become exactly the same, not worse, not better” by adding that “I give any Englishman two years [...]. And I give any Englishwoman six months. All are exactly alike” (Forster, 1924: 7). The discussion among the natives simply suggests that cultural authority of the colonialism prevents the natives from having a sustainable intercourse under the colonial power.

The cross-cultural encounter of the colonized and the colonizer is vividly presented in the scene where Aziz and Mrs. Moore confront each other at a mosque. Immediately after Aziz notices an Englishwoman in the mosque, he yells at her furiously: “Madam, this is a mosque, you have no right here at all; you should have taken off your shoes; this is a holy place for Moslems” (Forster, 1924: 17-18). Later Aziz learns that the old lady is the mother of the City Magistrate of Chandrapore and that she has already taken off her shoes at the entrance. While Aziz is escorting Mrs. Moore to the Chandrapore Club, they have had a friendly conversation. When they arrive, Mrs. Moore “wished she was a member, so that she could have asked him in” (Forster, 1924: 21). However, she is shocked to learn that “Indians are not allowed in the Chandrapore Club, even as guests” (Forster, 1924: 21-22) because it is the whites-only club.

The novel is a portrayal of Anglo-Indian life and characters on the one side, and of Indian life and characters on the other. According to Mike Edwards, Forster compares and contrasts “the conception of intellect-dominated imperial power” with “an emotion-dominated subject race” to unveil the identity of the characters (2002: 146) in a colonial setting. For instance, as a main character Aziz, a young Mahommedan doctor in Chandrapore with a simple-minded and almost childish personality, is presented as a pathetic poet who is thrilled by the mention of roses and bulbuls just like many other Persian poets. On the other hand, Ronny, as a self-complacent, censorious and unsubtle man, is notorious for exerting his
power and being unsympathetic to the colonized. Because he believes that he is not in India to behave pleasingly, but to do justice and keep the peace.

In the course of the novel, Forster makes his readers focus on the expectations of his characters such as Mrs. Moore and Adela, who wants to see the real India. For instance, Adela’s wish to see the real India is interpreted in many statements: “I want to see the real India” (Forster, 1924: 22). Additionally, she also states that “I’m tired of seeing picturesque figures pass before me as a frieze […] I only want those Indians whom you come across socially - as your friends” (Forster, 1924: 26). Indeed, Adela’s demand to see the real India mainly stems not only from her own anxiety and curiosity about the county but also her uncertainty about whether she would decide to live and marry a colonial officer, Ronny. Because such a decision-making process is to do with her own identity and future. Unmistakeably, if she marries a colonial officer, she will always be labelled as an Anglo-English wife. Thus, she seems to be rather undecisive whether to embody such a stereotype or not.

In the novel, thanks to the insistence of the two ladies to see the real India, a Bridge Party is arranged for the honour of both Mrs. Moore and Adela Quested under the auspices of Collector, Mr. Turton. In this scene, Mr. Turton “issue[s] invitation cards to numerous Indian gentlemen in the neighbourhood, stating that he would be at home in the garden of the Club between the hours of five and seven on the following Tuesday” (Forster, 1924: 35). As indicated, Mr. Turton invites several Indian gentlemen to Bridge Party at the club by adding that he “would be glad to receive any ladies of their families who were out of purdah” (Forster, 1924: 35). This invitation causes a serious conflict among the natives. While according to some natives such as cynical Mahmoud Ali, Mr. Turton issues the invitation with the order of the lieutenant general, to some others such as Nawab Bahadur, the most important Indian landowner with a highly respected personality, “[t]he invitation is worded very graciously” (Forster, 1924: 36). However, some other natives believe that Nawab Bahadur is cheapening himself by accepting the invitation. Interestingly enough, what is ironic is that India is not the home of the uninvited English conquerors who believe they have an inborn right to forbid or allow the natives to a place that is already theirs. However, the Club is in the borders of the so-called English territory, which gives the Englishman freedom while displaying their xenophobic and jingoistic attitudes.

From the perspective of sceptical Mr. Turton, the Indians attend the party only for self-serving reasons. The bridge party exposes the antagonistic attitudes of the imperial rulers and the natives. Ronny intentionally tries to demonstrate how ill-mannered and stupid the Indians are, and how any meeting of the Indians and English is bound to end in fiasco. According to Sehgal, “The mores of the Anglo-Indian society,
therefore, not only destroy human relationships but also erect barriers and Fences which prevent understanding. In fact, the Anglo-Indian mores stress segregation rather than integration of people belonging to diverse cultures, racial origins and social habits” (1973: 181). As the quote indicates, the Anglo-Indians segregate the people of diverse culture rather than integrate them in the novel. Moreover, the Anglo-Indian segregation is narrated as such when the British women warn Adela about the improper attitudes of the natives: “She became the centre of an amused group of ladies. One said: ‘Wanting to see Indians! How new that sounds!’ Another: ‘Natives! Why, fancy!’ A third, more serious, said ‘Let me explain. Natives don’t respect one any the more after meeting one, you see.’ ‘That occurs after so many meetings” (Forster, 1924: 25). In the same scene, Mrs. Callendar adds that “the kindest thing one could do to a native to let him die” (Forster, 1924: 25). As specified, the xenophobic nature of imperial Britain is vividly presented just before Adela encounters with the colonized women.

The bridge party plays a significant role, particularly in uncovering identity of the characters with regard to their perspectives on race, religion and politics. As a formal social meeting, bridge party becomes the place of myriad encounters where the differences among the groups are visibly exposed. Although Forster himself is attuned to the issues of nationality, class, culture, religion and politics, at the end he remains concerned with the identity of the characters. For example, even though the bridge party is given for the honour of Mrs. Moore and Miss Adela, it can never be considered as a remarkably fruitful gathering. Because it is not the kind of party that they are accustomed to culturally and socially. Both Mrs. Moore and Adela arrive at the party early, but the Indian guests have arrived earlier. So, the Indians stand “massed at the farther side of the tennis lawns, doing nothing” (Forster, 1924: 38). Meanwhile, the collector’s wife, Mrs. Turton refuses to “shake hands with any of the men unless it has to be the Nawab Bahadur” (Forster, 1924: 41) at the party, which simply gives the impression of inequality. More explicitly, Mrs. Turton’s refusal to shake hands with any of the men reminds Mrs. Moore of their own nation’s superiority. Mrs. Turton emphases her superiority with these words: “You are superior to everyone in India except one or two of the Ranis, and they’re on an equality” (Forster, 1924: 42).

The novel goes deeper into the problems of Anglo-India, while at the same time it gives a vivid picture of the conditions under which English and Indians live. However, Englishmen, and to a much greater extent Englishwomen, have no desire at all to know anything of the native population of the country. Furthermore, the English who after the first few months in the country habitually lose even the vestiges of common courtesy in dealing with Indians of all ranks. Mrs. Turton, who is
completely prejudiced and rude, feels superior to all Indians in every respect and she uses “a few words of welcome in Urdu” (Forster, 1925: 42). She rather prefers imperative forms of their language rather than polite ones. On the other hand, Adela’s observation at the bridge party indicates that the English are unpleasant to Indians. According to Borchardt, “For Adela, her trip to India began with the promise of exoticism, excitement, and the contented life of a married woman. Instead, she experiences boredom, isolation, and romantic disappointment. She finds little charm in Chandrapore’s scenery, dislikes the intolerant and unwelcoming Anglo-Indians, blunders every time she tries to interact with Indians, and realizes her marriage to Ronny will bring nothing but emptiness and disappointment” (2013: 25). Adela expresses her annoyance at the rudeness of her countrymen. Yet, one of the most striking narrations is the scene where Adela tries to get in touch with the natives at the party: “Indeed, all the [Indian] ladies were uncertain, cowering, recovering, giggling, making tiny gestures of atonement or despair at all that was said [...]. Miss Quested had her desired opportunity; friendly Indians were before her, and she tried to make them talk, but she failed, she strove in vain against the echoing walls of their civility” (Forster, 1924: 43). This extraction simply shows the incentive of Adela to break the ice and reach the Indian women through friendly gestures. However, it becomes impossible for her to reach them as the cold barriers of sociality have already been erected in the Anglo-Indian society. Thus, both the colonized and the colonizers have realized their race-based and culturally specific belongingness and thus, they retreat back to their own individual and cultural identities. However, among the Anglo-Indians, Mr. Fielding is the one who avoids cultural and social biases in every aspect. He kindly and freely socializes himself with the Indians.

In an imperial setting, Mrs. Moore witnesses to what extent the imperial India has changed the identity of his son, Ronny. She is shocked to see how his son has turned into a severe and unpleasant young man. She questions her son’s judgments by saying him: “You never used to judge people like this at home”, and then Ronny responds to her mother: “India isn’t home” (Forster, 1924: 33). Even though Ronny works in the administration of the country and has a sense of responsibility on the eyes of the Englishmen, it is trivial for him whether the natives are treated poorly or not. For the natives, forcing them to remain passive, imposing them to ignore their self-respect, and urging them to feel inferior consciously are among his dastardly deeds. In the novel, Forster demonstrates the superiority of the colonizer over the colonized through the colonizer’s discourse. For instance, Ronny’s assuming the Indians as a “side-issue” (Forster, 1924: 51) indicates that he is free to behave the colonized patronizingly. However, as a woman whose ideas have not been corrupted and intoxicated on colonialization yet, Mrs. Moore becomes rather anxious about the
imperial identity of her son as she has never been accustomed his son’s using judgemental discourse in England. Even if Ronny attempts at persuading Mrs. Moore of the significance of the British existence in India and reminds her of the coloniser’s ultimate aim and mission in a colonised country, she hardly understands the legitimization of the colonisation process which is rather based on the enslavement of the other races. As seen from the very moment Mrs. Moore arrives in India, she observes and makes some inferences about the colonial life by assessing both sides, the colonized and the colonizer. Under the guise of bringing civilisation and knowledge to the colonized, the colonizer, in this case Ronny, attempts to unveil his real intention.

\textit{A Passage to India} involves a wide variety of major characters who are developed in length and depth. For instance, Mrs. Moore and Professor Godbole are the representatives of both material and spiritual realms. However, the central racial distinctions appear in the novel when there is a group of characters gathered at Fielding’s house for tea: Adela, Aziz, Fielding and Professor Godbole. The characters are getting well despite the oddities presented by Godbole himself until Ronny Heaslop arrives. Ronny’s arrival is something like an intrusion to the established order among the people of different nationalities. Forster’s creating an unusual setting in which presumptions, misperceptions and misapprehensions arising from racial, gender and cultural differences are all frivolous is undermined by the rush of Ronny and his unconcealed annoyance. Ronny tells Adela that \textit{“There’s to be polo [...] Everything’s altered”} (Forster, 1924: 81) and then, he gives an authoritative command such as \textit{“I want you and mother at once”} (Forster, 1924: 81). In the meantime, Godbole’s reverential attitudes, as he calls Ronny as ‘sir’, are blended with Ronny’s arrogant behaviour. Ronny criticizes Fielding for having \textit{“left Miss Quested alone”} (Forster, 1924: 82). This seems to be the reason of his vehemence since nothing could be worse than leaving a young lady with two Indians for him. Undeniably, Ronny has no right to criticize Fielding heavily and publicly before the members of the so-called inferior race, as Fielding is also an Anglo-Indian, since he has to preserve the impression of friendship among the members of the superior race. On the surface the dispute between them seems as if it is nothing about, but in its deeper sense, it is much more than that. The reason of the dispute lies in the fact that whether the status of the Indians or the valuation of man is significant in human affairs. However, it is common that Ronny’s ignoring of the Indians is a distinguishing characteristic of nearly all Anglo-Indian.

Forster makes his readers believe that Ronny’s behaviours arise not from his ill-mannered or offensive manners but from \textit{“dehumanising power of his position”} (Edwards, 2002: 87). Because Indians are, in his own view, subordinate to Anglo-Indians and Ronny’s position bears no relation to the
Indians except for official administration, namely one is the ruler and the other one is the ruled. In other words, the Indians can never be treated as “individuals” or “private” humans so their positions as human beings are beyond Ronny’s indulgence and familiarization. Furthermore, when Aziz reiterates his order to Fielding’s servant, Ronny feels insulted because he thinks that Aziz is a spoilt-westernized type of man, who has no idea and will of his own. According to Edwards, “[B]y daring to recast Ronny’s order, Aziz sets himself up as an equal, and Anglo-India cannot countenance such revolutionary behaviours. The edifice of the empire of India rests upon a consistent refusal to regard the indigenous races as having the human rights of their rulers” (2002: 88). Indeed, Ronny does not consciously dehumanise Indians, it is a natural inducement of the ruler in India. On the contrary, Aziz thinks that he is completely human and is equal with Fielding, and he feels free to assume any other equality with Ronny. Moreover, unlike Godbole, who stands up from the beginning of the party to the end, Aziz remains seated and unlike Godbole, he prefers calling Ronny by his surname, “Mr. Heaslop” not by “sir”. Forster describes this behaviour by the use of an oxymoron “offensively friendly”. To Edwards, “Ronny really does represent the Anglo-Indians” whereas Aziz “represents the slave who masks inner contempt with superficial respectfulness” (2002: 91). Moreover, Ronny also despises Aziz for his dressing style, as Aziz is “exquisitely dressed, from tie-pin to spats” and has forgotten the “back collar stud” on his dress, which makes his dressing most extravagant. Ronny gazes Aziz and says, “you have the Indian all over” by associating him with “the fundamental slackness that reveals the race” (Forster, 1924: 87).

In the course of the novel, a seemingly equal relationship between the colonizer and the colonized is illustrated through Fielding. Even if Fielding is generally on good terms with the English in Chandrapore, the Englishmen sometimes feel unrest with the way Fielding behaves to the Indians. Because for them, the Indians become less obedient through the education system of Fielding as he normalizes interacting with them and exchanging ideas on a number of issues. Undeniably, Fielding shows differences in his manners as an Englishman from the others. For instance, Fielding does not show any implications of using power on Indian men. Interestingly enough, in some cases Fielding disagrees with the other Englishmen in India: “He [Fielding] could not at first see what was wrong. He was not unpatriotic, he always got on with Englishmen in England, all his best friends were English, so why was it not the same out here?” (Forster, 1924: 64). The answer to this question is rather easy. Because the Englishmen in England do not have colonial power whereas they have in India. Moreover, it becomes rather enthusiastic for Fielding to be friends with non-white men as “He had no racial feeling” (Forster, 1924: 65). Thus, the relationship between Aziz and Fielding is not arbitrary rather it
is the result of their inner self, a self which ignores all sorts of judgmental decisions.

On the other hand, according to Bakshi, the relationship between two men seems to be a “specifically homoerotic”, an intercourse which implies Forster’s own lust for homosexuality “outside of British society” (1996: 24). Similarly, Sara Suleri explicitly discusses the differences between “the visibility of race” and “invisibility of sexual preference” (1997: 133) in the novel by arguing that racial difference is eroticized between Fielding and Aziz. Considering homosexuality from a historical perspective is of the utmost importance in revealing the implicit references on homosexuality in the novel. As known, “homosexuals were forced to look outside of English society for places and ideas more conducive to male friendship” (Bakshi, 1994: 29) in those years. As for the novel, the theme of homosexuality is inserted ambiguously. Even if it is possible to state that the Englishmen arrive in India “intending to be gentlemen”, they later discover that “it will not do” (Forster, 1924: 7). Additionally, even if their initial aim is to be friend with the Indians, the Englishmen change in the course of time because of the power of the colonized or of the homoerotic desires, which they have never had the chance of experiencing in their homelands.

In the second part of the novel entitled “Caves”, identity of the colonized and the colonizer is revealed through the use of an uncanny setting, namely the Marabar Caves. A day trip is arranged for Mrs. Moore and Adela Quested who are deeply concerned in seeing the real India than any other thing. However, the invitation issued by Aziz to the caves becomes a muddle in the hands of a Moslem Indian as he has had to contemplate every detail meticulously and has had to consider every needs of his guests who come from different backgrounds. Because even the food they eat becomes a major problem. For instance, Adela, Mrs. Moore and Fielding would prefer to eat ham and drink liquor whereas Dr. Aziz would not, as his religion forbids him to eat ham. Conversely, Professor Godbole would feel rather offended if anyone ate beef. Aziz realizes afterwards that uniting all these people from different origins, religions and races would be a trouble for him. However, the experience they have at the caves make an exceptional impact upon them. In other words, Mrs. Moore and Adela react with the same societal codes of Britishness by presenting more elaborate and refined personalities.

In the novel, building a cross-cultural understanding between the colonizer and the colonized is almost impossible as the colonizers arrive the land with their own prejudgements. Adela, who is disinterested about what the Anglo-Indians believe and who wants to know the real India, actually begins to have some ideas on the British identity rather than Indian ones in a colonial setting when she is exposed to cultural settings. For
instance, she thoroughly gets to know the identity of Anglo-Indian Ronny. While Adela and Aziz are walking and talking to discover another cave, Adela questions whether she is really in love with Ronny Heaslop or not. Then, she thinks that she does not love him. Moreover, in an Anglo-Indian colonial community, Adela’s statements as such “By marrying Mr. Heaslop I shall become what is known as an Anglo-Indian” and “I can’t avoid the label. What I do hope to avoid is the mentality” (Forster, 1924: 61) overtly reveal her own concerns about how she will resist that label and what it means to be an Anglo-Indian. Her endeavour to identify her own identity reveals the uncanny relationship between British self and Anglo-Indian self. Because “Identities are not fixed; they are not homogenous […]. They are the product of ceaseless negotiations between various cultural entities marked by asymmetries of power leading to the view of postcolonial identity as involved in invention and newness” (Abraham, 2007: 52). Thus, Adela questions her own identity as a European woman in the colony as her body also reveals a sign of bourgeois domesticity and racial superiority. Then, Adela resolves that what she really wants is to untangle herself from Anglo-Indian community by disengaging herself from Ronny Heaslop.

In the cave scene, Adela attempts to explore Aziz, a representative of the colonized, by making a number of rude and improper remarks unknowingly. For example, Adela turns to Aziz and asks him, “Have you one wife or more than one?” (Forster, 1924: 165) inquisitively. Because, the colonizers believe that “Mohammedans always insist on their full four” (Forster, 1924: 165). Aziz is shocked by the question he is asked. For him, “to ask an educated Indian Moslem how many wives he has - appalling, hideous!” and additionally, Adela is not aware of what she has done and whether she has said something wrong or not. Indeed, the conversation between Aziz and Adela “… polarize[s] the distinction - the Oriental becomes more Oriental, the Westerner more Western - and limit[s] the human encounter between different cultures, traditions and societies” (Said, 1979: 46) to a certain degree.

Adela enters the cave during the expedition and on emerging she has the impression that Aziz has followed her in and assaulted her. Since the accusations are made publicly and an explosive reaction is created in the town, the trial is arranged immediately after Adela is called as a witness. This atmosphere also creates tension among the public at the court, but Adela suddenly declares that no one has followed her into the cave. The trial collapses, a temporary crisis occurs, and the life resumes its normal tenor. However, after the muddle in the Marabar Caves, the tension between the English and the Indians becomes more apparent than it was ever before. In treating the question of what really happened in the caves is an oblique narration in the novel. According to Allen, there are mainly
two answers on what has happened in the caves; one is ‘natural’ and the other one is ‘supernatural’ (1955: 947). However, to him, it is one of characteristics of Forster to portray incidents from several perspectives. And such a double perspective or binary oppositions have always been the source of a great deal of confusion in the interpretation of his novels. The naturalistic expression is somewhat about how a nice girl like Adela could malign a decent man like Aziz. The naturalistic expression clearly defines that Adela, upon entering the close confines of that last cave, “got a sun-stroke and went mad,” (Forster, 1924: 166) and she hallucinated that someone had attacked her. The other approach, namely supernatural approach to the incident is that Adela herself enters into the cave with the problem of love and marriage. She has been suddenly assailed by doubts in the cave. So, her false charge against Aziz places her a terrifying experience. She has made an effort to eliminate the terror and given a meaning to the things around her.

As far as the identity of the colonizers is concerned, Fielding, the only character who actively observes ‘both sides’, can be said to have distinctive aspects such as being impartial and unprejudiced. He seems as if he is there to resolve complaints and disputes of all kinds, and to act within the existing laws and cultural traditions as an impartial adjudicator. Fielding has always been cognizant of the fact that two sides must build up a good rapport with each other. Unlike Ronny, Fielding is an experienced man since he has been to India with a public role as a teacher, who “resides in the subaltern spaces and the mainstream Anglo-Indian culture” and who “is rendered a half-caste, white but not quite English” (Ghimire, 2012: 74-75). Fielding, as a man of the world who is “mature and reasonable, generous and just” (Kermode, 2009: 60), has gained valuable experience not only from his extensive journeys but also from his sexual encounters. As an unmarried man, his reliance to his own emotions makes him develop mutual friendship based on affection rather than some abstract concepts such as country or social sets. He has no faith in God, but his lack of religious allegiance gives him the opportunity of inclusiveness.

In the novel, what is explicitly depicted is that the colonizer express no desire or intention of coming to a better understanding with the colonized. Because the common expression is that the Indians are not worth the effort. On the other hand, the better-class Indians are also on the opinion that it is useless to try to be friends with the English. Furthermore, the attitudes of the two races are expressed more vividly when Adela is announced to have been attacked by Dr. Aziz. Remarkably enough, no one among the English stops to consider the truth of the question, namely the possibility of her being wrong. Mrs. Moore and Fielding are the sole two who suggest that she might have been mistaken. However, the atmosphere of this scene is so significant that a presumably virtual state of warfare between the
English and the Indians suggests two hostile camps. And everything turns upside down when this English girl is honest enough to withdraw her charge since she realizes that she may have been mistaken. Trilling makes a note on the difference of the two nations in the novel: “The separation of race from race, sex from sex, culture from culture, even of man from himself, is what underlies every relationship. The separation of the English from the Indians is merely the most dramatic of the chasms in this novel” (1965: 151). For instance, while the whole English in Chandrapore assume that Aziz is guilty and this guilt is the collective guilt of all Indian people, the Indians are not eager to defend Aziz and are much more interested in the details of the evidence and legal processes. Moreover, many Englishmen take the assault on Adela as an assault by all Indians on the British themselves.

In the novel, Forster’s characters find themselves eccentrically reciting the demands and expectations of an imperial system. For instance, Adela repeats the racial stereotype of the sexually aggressive Indians. Adela, a frequently anxious and hysterical representation of modernity, suffers from ‘hysteria’ after accusing Aziz of sexual assault. She is unable to get rid of the haunting sound of the echo, an uncanny sound whether it is the sound of a beast real or imagined in the cave. When she sets out to see the real India, she is confronted with hallucination at the Indian Marabar caves rather than reality. Adela’s imagination of being sexually attacked by Aziz also indicates the recurrent stereotype of sexually aggressive Indians. Because in the novel, the Anglo-Indians get pleasure in repeating the masochistic scene of interracial sexual assault. Ronny Heaslop as a British man assumes that British women need to be protected from Indian men as the theory of Mr. McBryde, superintendent of police, particularly, on ‘Oriental Pathology’ (Forster, 1924: 243) suggests Indian men are inevitably attracted to white women.

4. Conclusion

In A Passage to India, Forster captures the uneasiness in India, particularly after the 1st World War as his novel commonly reflects his experiences while travelling to India in the years 1912-1913 and 1921. A Passage to India, an ostensibly anti-imperial novel, reveals “deep fissures in the liberal humanist framework that allowed for a generous, dignified, secular, and tepid opposition to the Empire. [...] The inability of the British characters to accommodate non-duality reveals the terror of facing the otherness of indeterminacy” (Drake, 2017: 22). Forster deliberately and repeatedly confronts the reader with the Indian art/architecture/setting to display the Otherness of the self. For instance, the visitors’ confronting with the erotic Indian temples is nothing to do with familiarization of a cultural Otherness but rather a kind of discovery to their own psychological self, a journey to the real self, a struggle for defining their identity by
illuminating its dark sides. Thus, the uncanny self within the self also emerges in a colonial setting for the British ones.

This study concludes that the English characters, all of whom are the representatives of the colonizer, attempt to (re)identify themselves as they are aware of the fact that their identities are changing gradually and visibly because of their privileges in a colonial setting. As indicated, the transformations of the colonizer are noticeable with the way they treat the colonized. Sehgal remarks that how the identity of the characters transforms from one identity to another when the context changes: “A transformation takes place in the attitudes of the characters. Imperial India transforms Ronny into a self-complacent, censorious and bitter young man; Turtons and Burtons into intolerant and unsympathetic rulers; Fielding into ambiguities; Mrs. Moore into a ‘memory’ to be cherished; Adela into a ‘muddle’ and finally her subsequent withdrawal to England” (1973: 214). Accordingly, all these paradigms such as “human relationships with their various possibilities and disasters” are indicated and “social comic irony of confronting one social world with the standards of another” is presented through displaying “social and political implications” (Bradbury, 1966: 135) in the novel.

Forster’s transition from a liberal humanist intellectual into an actively engaged member in India can undoubtedly be traced in this work through his depictions, which are the results of his ideological sympathy with the subcontinent. Similarly, Forster’s written documents such as letters, reviews and essays written in the years preceding the publication of A Passage to India prove that Forster himself is frustrated with the British Raj, that is, the rule by the British on the Indian subcontinent from 1858 to 1947, particularly about the manner of Anglo-Indian officers who habitually (mis)treated local inhabitants. Moreover, “For Forster, however, irreconcilation between the British Raj and India had less to do with colonial policies and practices than with a decisive change in social attitudes by both sides” (Koontz, 2015: 127).

As indicated, even though the novel suggests that the gap between the colonizer and the colonized can be narrowed through a number of social practices, it seems like it is rather impossible to form a balanced relationship between them. Under the auspices of the coloniser, it remains an unsurmountable problem to maintain a friendly atmosphere between the two nations. Accordingly, even if “there have been many attempts to tame the ‘wild’ and ‘uncivilized’ India, it remains a country of ‘failure’ in the eyes of western people” (Tüfekci Can: 2015: 416) because of the misunderstandings and prejudices between the colonized and the colonizer ideologically and culturally.
By presenting how the colonized is exploited by the colonizer, Forster explicitly shows cultural, social and political distinctions between them. For instance, the British tend to stay aloof from the natives since their pride prevents them from having an intercourse with the natives, even the educated Indians are treated with contempt. Also, the Anglo-Indian women are presented as arousing an insensate and unreasoning hostility in the novel. Last but not least, Memmi summarizes the relationship between the colonized and colonizer, “For if colonialism destroys the colonized, it also rots the colonizer” (Memmi, 1974: XVII) and adds “For me, oppression is the greatest calamity of humanity. It diverts and pollutes the best energies of man - of oppressed and oppressor alike” (1974: XVII). In the novel, Forster consciously shows the identity of the colonized and the colonizer, both of which are rotten, in a colonial setting through his humanistic approach.

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IMPACT OF REFUGEES ON ECONOMIC GROWTH: AN EMPIRICAL ANALYSIS OF TOP REFUGEE-HOSTING COUNTRIES

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1. Introduction

According to the United Nations High Commissioner for Refugees (UNHCR), the refugee; a person who has been forced to flee her or his country because of persecution, violence or war. Refugees have a well-founded fear of persecution for reasons of race, political opinion, religion, nationality or belonging to a particular social group. Generally they cannot return home or are afraid to do. Therefore, war, ethnic problems, tribal and religious conflicts are the main reasons to refugees’ escape from their country.

As a result of the increasing conflicts and civil wars in the world, refugee flows have increased continuously and reached approximately 13.6 million people in 2018. Refugees are mostly in the least developed or developing countries and most of are in neighboring countries. Major source countries of refugees are Syria (6.7 million people), Afghanistan (2.7 million people) and South Sudan (2.3 million people), respectively (UNHCR, 2018). The Syrian civil war caused many refugees to migrate in recent history; this led to mass migration of Syrians to neighbor countries such as Turkey, Lebanon, Jordan, Iranian and Iraq (Fakih and Ibrahim, 2016). Before the civil war, Syria was top refugee-hosting country. For example, in 2008, Syria was second refugee-hosting country with 1.1 million Iraqi refugees in the world. The distribution of other refugees by country is as follows: Afghan refugees in Pakistan and Iran; Myanmar refugees in Bangladesh; Iraqi refugees in Lebanon, Jordan and Turkey; Burundian and Congolese refugees in Tanzania, South Sudan, Uganda and Chad; Eritrean refugees in Sudan, Vietnam and China; Somali refugees are mostly in Kenya.
Refugees affect host country's economy in many ways. They increase public spending (Alshouba, 2017), lead to widespread bribery and thus to increase corruption (Brees, 2010) and increasing epidemic can affect public health negatively (Atim, 2013). The most important effect of refugees on the economy is on the labor market. Refugees directly affect employment of local people due to working low wages in the labor markets (Stave and Hillesund, 2015; Glonek, 2014) and reducing average wages in the informal sector (Del Carpio and Wagner, 2015), seen as both consumer and low-cost labor by local manufacturers (Betts et al. 2014) therefore, refugees affect the price level through cost and demand channel (Alix-Garcia and Saah, 2009).

Refugee flows can cause countries to be dependent on international aid. To avoid the negative impact of mass refugee flows on economic and social life as well as on the environment and security, many of the countries try to prevent refugee flows channels such as complicating asylum procedures, preventing integrating into the local community (László, 2018). This leads refugees to be dependent on the informal sector and causes to work in low-wage jobs (Dadush and Niebuhr, 2016).

In this study, the impact of refugees on economic growth is discussed for 18 countries that different stage of development between period of 1994-2017. In the second part of this study, the literature will be evaluated and the econometric method and findings will be presented in the third and fourth parts, respectively.

2. Literature Review

Many of the studies on the economic effects of refugees have focused on inflation and labor markets; there is more limited literature for its effect on economic growth. Refugees affect economic growth with different channels. Providing cost advantages with low-wage labor, increasing supply and demand, increasing human capital stock are some of them. Refugees negatively affect growth through channels such as increased public spending, foreign aid dependency and unemployment. But the effects of international aid for refugees differ by country. In some countries, foreign aid increases foreign dependency and causes them to be more vulnerable to global shocks therefore, decreases economic growth, but in some, increases growth.

In this context, László (2018) found that refugees are seen as an economic burden, increase dependency on international aid and adversely affect country development. In addition external shocks such as refugee crisis causes countries to be more vulnerable to donor countries and increase dependency on developed countries. Kouni (2018) found that
refugees positively affect growth both in high and low-middle-income countries, both directly and through labor and R&D channels, but in low income and upper-middle income countries, this effect is negative. According to Azarnert (2018), under the assumption that refugees migrate from developing countries to developed countries, both refugee-origin and refugee-hosting countries benefit from this. In refugee-hosting countries, if refugees are more educated and more qualified than the local people, human capital accumulation increases and this positively affects economic growth. In the refugee-origin countries, this effect is provided by remittances.

Taylor et al. (2016) evaluated the impact of refugees on growth by emphasizing different channels. According to the study, cash aids increase demand for local products and affect growth positively. Therefore, local people also benefit from the opportunities provided to refugees. For example in Uganda, the local people who earn rental income and find employment opportunities with the workplaces given to refugees, this increases the welfare of the local people. Brees (2010) suggested that refugees lead to the expansion of the labor market; increasing demand and foreign aid, positively affect the economy in Thailand. Gomez et al. (2010) found that both the local community aid and the financial support provided by refugee relatives from abroad increase the country's development. However, according to a more recent study by Wahogo (2016) refugees negatively affect growth in Kenya.

3. Model, Methodology and Data

In this study, cross-section dependence and slope homogeneity were tested firstly. Fort long-term relationship between variables, Durbin-Hausman cointegration test developed by westerland (2008) was used. After the cointegration relationship between the series was revealed, Augmented Mean Group (AMG) developed Eberhardt and Bond (2009) were used.

3.1. Model and Data

In this study, the impact of refugees on economic growth is analyzed in 18 top refugee-hosting countries between 1994-2017. Contries consist of six least developed countries (Bangladesh, Sudan, Chad, Uganda, Tanzania, Democratic Republic of Congo), six developing countries (Turkey, Pakistan, Jordan, Lebanon, Iran and Kenya) and six developed countries (USA, Germany, United Kingdom, France, Italy and Sweden). Model I, Model II and Model III were used for the least developed, developing and developed countries, respectively. The models are as follow:
Model I and Model II:

\[ \text{LGROW}_{it} = \beta_0 + \beta_1 \text{LREF}_{it} + \beta_2 \text{LREF}_{it} \times \text{UNEMP}_{it} + \beta_3 \text{LREF}_{it} \times \text{INF}_{it} + \beta_4 \text{LREF}_{it} \times \text{TRADE}_{it} + \beta_5 \text{LREF}_{it} \times \text{AID}_{it} + u_{it} \]  

Model III:

\[ \text{LGROW}_{it} = \beta_0 + \beta_1 \text{LREF}_{it} + \beta_2 \text{LREF}_{it} \times \text{UNEMP}_{it} + \beta_3 \text{LREF}_{it} \times \text{INF}_{it} + \beta_4 \text{LREF}_{it} \times \text{TRADE}_{it} + u_{it} \]  

**LGROW** which dependent variable, indicates the logarithmic transformation of GDP (constant 2010 US$) and was used as an indicator of economic growth. **LREF** indicates logarithmic transformation of the number of refugees. **LREF \times UNEMP, LREF \times INF, LREF \times TRADE and LREF \times AID** are used as interaction variable in the models. **UNEMP** unemployment rate, **INF** GDP deflator (annual %) **TRADE** trade (% of GDP) and **AID** indicates foreign aid (% of GDP). AID only used in least developed and developing countries. With the interaction variables, it is aimed to reveal how the refugees indirectly affect growth through unemployment, inflation, foreign trade and foreign aid channels. All of the variables in the model are taken from the World Bank.

### 3.2. Methodology

Augmented Mean Group (AMG) developed by Eberhardt and Bond (2009) as an alternative to Pesaran’s Common Correlated Effects Mean Group (CCEMG) estimator and it is more reliable than CCMGE. The stages of the AMG are as follows (Eberhart and Bond, 2009):

\[(\text{I. stage}) \]

\[ \Delta Y_{it} = b' \Delta X_{it} + \sum_{t=2}^{T} c_t \Delta D_t + e_{it} \]

\[ \Rightarrow \hat{c}_t = \hat{\mu}_t \]

\[ (\text{II. Stage}) \]

\[ Y_{it} = a_i b' X_{it} c_t + d_t \hat{\mu}_t + e_{it} \]

\[ \hat{b}_{AMG} = N^{-1} \sum_i \hat{b}_i \]

In the first stage of the process, a standard FD-OLS regression in first differences, with \( T - 1 \) year dummies from that are collected the year dummy coefficients which are relabelled \( \hat{\mu}_t \). This process is extracted from the pooled regression in first differences since nonstationary variables. In the second stage of the process, this variable is included in each of the \( N \) standard country regressions and alternatively we can
subtract $\mu_{t^*}$ from the dependent variable, this means that the common process is imposed on each country with unit coefficient. Finally, using the Mean Group (MG) approach of Pesaran and Smith (1995), the Augmented Mean Group (AMG) is obtained (Eberhart and Bond, 2009).

4. The Empirical Results

4.1. Cross-Section Dependence Tests

The cross-sectional dependence was analyzed with the bias-adjusted LM test ($LM_{Adj}$) of Pesaran, Ulah and Yamagata (2008) and analysis results are presented in Table 1.

Table 1: Cross-Sectional Dependence Test Results

<table>
<thead>
<tr>
<th>Models</th>
<th>Variables</th>
<th>$LM_{Adj}$</th>
<th>$LM_{Adj}$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Constant</td>
<td>Constant +Trends</td>
</tr>
<tr>
<td>Model-I</td>
<td>LGROW</td>
<td>30.181***</td>
<td>31.476***</td>
</tr>
<tr>
<td></td>
<td>LREF</td>
<td>24.835***</td>
<td>24.096***</td>
</tr>
<tr>
<td></td>
<td>LREF*UNEMP</td>
<td>34.490***</td>
<td>33.241***</td>
</tr>
<tr>
<td></td>
<td>LREF*INF</td>
<td>32.522***</td>
<td>29.401***</td>
</tr>
<tr>
<td></td>
<td>LREF*TRADE</td>
<td>53.245***</td>
<td>50.498***</td>
</tr>
<tr>
<td></td>
<td>LREF*AID</td>
<td>32.507***</td>
<td>29.195***</td>
</tr>
<tr>
<td>Model-II</td>
<td>LGROW</td>
<td>35.937**</td>
<td>36.274**</td>
</tr>
<tr>
<td></td>
<td>LREF</td>
<td>36.666**</td>
<td>37.249**</td>
</tr>
<tr>
<td></td>
<td>LREF*UNEMP</td>
<td>34.863**</td>
<td>33.624**</td>
</tr>
<tr>
<td></td>
<td>LREF*INF</td>
<td>38.652**</td>
<td>21.494**</td>
</tr>
<tr>
<td></td>
<td>LREF*TRADE</td>
<td>39.282**</td>
<td>50.498**</td>
</tr>
<tr>
<td></td>
<td>LREF*AID</td>
<td>35.591**</td>
<td>35.168**</td>
</tr>
<tr>
<td>Model-III</td>
<td>LGROW</td>
<td>46.745***</td>
<td>42.530***</td>
</tr>
<tr>
<td></td>
<td>LREF</td>
<td>32.616***</td>
<td>37.943***</td>
</tr>
<tr>
<td></td>
<td>LREF*UNEMP</td>
<td>32.721***</td>
<td>42.785***</td>
</tr>
<tr>
<td></td>
<td>LREF*INF</td>
<td>32.076***</td>
<td>30.187***</td>
</tr>
<tr>
<td></td>
<td>LREF*TRADE</td>
<td>46.769***</td>
<td>50.498***</td>
</tr>
</tbody>
</table>

Notes: ***, **, * indicate the significance levels at the 1%, 5%, 10%, respectively. The null hypothesis is no cross-sectional dependence.

In Table 1, according to bias-adjusted LM test ($LM_{Adj}$), the probability values calculated for all variables are statistically significant in all models and the test statistics reject the null hypothesis for all variables. Therefore, it is decided that there is a cross-section dependency between the units.

4.2. Unit Root, Homogeneity and Cointegration Tests

When the null hypothesis that no cross-sectional dependence is rejected, the first generation panel unit root tests become invalid. Therefore, whether or not the series are stationary, unit root tests were used by Hadri and Kurozumi (2012) and Pesaran's (2007) cross-sectionally augmented IPS (CIPS) test for cross-sectional dependence and results are presented in Table 2.
### Table 2: Unit Root Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>CIPS</th>
<th>Constant</th>
<th>CIPS +Trends</th>
<th>$Z_{1}^{IPC}$ Constant</th>
<th>$Z_{1}^{IPC}$ Constant +Trends</th>
<th>$Z_{1}^{LA}$ Constant</th>
<th>$Z_{1}^{LA}$ Constant +Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODEL I</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGROW</td>
<td>-0.6735</td>
<td>-0.9028</td>
<td></td>
<td>-0.0003* [0.5001]</td>
<td>3.9430 [0.0000]</td>
<td>-0.6605* [0.7455]</td>
<td>9.1417 [0.0000]</td>
</tr>
<tr>
<td>LREF</td>
<td>-1.6314</td>
<td>-1.1367</td>
<td></td>
<td>-0.7324* [0.7680]</td>
<td>2.0223 [0.0216]</td>
<td>-2.4001* [0.9918]</td>
<td>-2.2435* [0.9876]</td>
</tr>
<tr>
<td>LREF*UNEMP</td>
<td>-0.7255</td>
<td>-3.0505**</td>
<td></td>
<td>0.0870* [0.4653]</td>
<td>-1.9939* [0.9769]</td>
<td>-1.6598* [0.9515]</td>
<td>-3.0020* [0.998]</td>
</tr>
<tr>
<td>LREF*INF</td>
<td>-2.2110*</td>
<td>-7.547*</td>
<td></td>
<td>-0.2792* [0.6100]</td>
<td>0.8460* [0.1988]</td>
<td>-0.0431* [0.5172]</td>
<td>1.8670 [0.0310]</td>
</tr>
<tr>
<td>LREF*TRADE</td>
<td>-1.9974</td>
<td>-2.2364</td>
<td></td>
<td>-1.5540* [0.9399]</td>
<td>-1.5494* [0.9394]</td>
<td>-1.5819* [0.9432]</td>
<td>0.1032* [0.4589]</td>
</tr>
<tr>
<td>LREF*AID</td>
<td>-1.7784</td>
<td>-3.1362***</td>
<td></td>
<td>-1.1999* [0.8849]</td>
<td>-0.9143* [0.8197]</td>
<td>-1.4780* [0.9303]</td>
<td>-1.1328* [0.8714]</td>
</tr>
<tr>
<td>ΔLGROW</td>
<td>-1.6352</td>
<td></td>
<td></td>
<td>-0.6342* [0.7370]</td>
<td>-0.8831* [0.8114]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔLREF</td>
<td>-2.7564***</td>
<td></td>
<td></td>
<td>1.7819 [0.0374]</td>
<td>2.5409 [0.0055]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔLREF*UNEMP</td>
<td>-2.8256***</td>
<td></td>
<td></td>
<td>0.9865* [0.1620]</td>
<td>1.0583* [0.1450]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔLREF*INF</td>
<td>-4.2820***</td>
<td></td>
<td></td>
<td>0.4766* [0.3168]</td>
<td>1.1128* [0.1329]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔLREF*TRADE</td>
<td>-2.5507**</td>
<td></td>
<td></td>
<td>1.3388 [0.0903]</td>
<td>1.0564* [0.1454]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔLREF*AID</td>
<td>-3.2926***</td>
<td></td>
<td></td>
<td>0.2042* [0.4191]</td>
<td>0.2109* [0.4165]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MODEL II</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGROW</td>
<td>-1.2316</td>
<td>-1.4810</td>
<td></td>
<td>-1.7097* [0.9563]</td>
<td>-0.3249* [0.6274]</td>
<td>-0.1341* [0.553]</td>
<td>7.7737 [0.000]</td>
</tr>
<tr>
<td>LREF</td>
<td>-1.4494</td>
<td>-3.0278**</td>
<td></td>
<td>-1.0070* [0.8430]</td>
<td>2.6265* [0.9957]</td>
<td>-1.8022* [0.9642]</td>
<td>-3.5625* [0.9998]</td>
</tr>
<tr>
<td>LREF*UNEMP</td>
<td>-0.8409</td>
<td>-1.6706</td>
<td></td>
<td>-0.7477* [0.7727]</td>
<td>-1.3617* [0.9134]</td>
<td>-1.6540* [0.9509]</td>
<td>-1.4084* [0.9205]</td>
</tr>
<tr>
<td>LREF*INF</td>
<td>-2.6586***</td>
<td></td>
<td></td>
<td>-0.5021* [0.6922]</td>
<td>0.9484* [1.0175]</td>
<td>-0.3518* [0.6375]</td>
<td>1.0367* [0.1499]</td>
</tr>
<tr>
<td>LREF*TRADE</td>
<td>-0.8944</td>
<td>-2.3905</td>
<td></td>
<td>2.1545 [0.0156]</td>
<td>-1.2344* [0.8915]</td>
<td>4.5764 [0.0000]</td>
<td>-0.6186* [0.7319]</td>
</tr>
<tr>
<td>LREF*AID</td>
<td>-1.9797</td>
<td>-2.2172</td>
<td></td>
<td>0.6176* [0.2684]</td>
<td>-0.3761* [0.6466]</td>
<td>19.2048 [0.0000]</td>
<td>3.1636 [0.0008]</td>
</tr>
</tbody>
</table>
\[
\begin{array}{cccc}
\Delta \text{LGROW} & -2.3273^* & -0.2680^* & -0.1606^* \\
\text{ALREF} & -3.4000^{***} & -1.2496^* & -1.3713^* \\
\Delta \text{LREF}^*\text{UNEMP} & -2.6599^{***} & -0.5677^* & -0.6180^* \\
\Delta \text{LREF}^*\text{INF} & -4.1798^{***} & -0.4986^* & -0.3018^* \\
\Delta \text{LREF}^*\text{TRADE} & -3.4051^{***} & -0.3512^* & -0.3513^* \\
\Delta \text{LREF}^*\text{AID} & -2.9511^{***} & 1.6072 & 0.9670^* \\
\text{MODEL III} & & & \\
\text{LGROW} & -1.712 & -2.8298^* & -0.1261^* \\
\text{LREF} & -0.3770 & -1.7545 & 2.3515 \\
\text{LREF}^*\text{UNEMP} & -1.5236 & -2.3791 & 0.8704^* \\
\text{LREF}^*\text{INF} & -3.0324^{***} & -4.1264^{***} & 0.9265^* \\
\text{LREF}^*\text{TRADE} & -1.9440 & -2.0025 & -2.0992^* \\
\Delta \text{LGROW} & -2.3948^{**} & -1.2849^* & -1.2817^* \\
\Delta \text{LREF} & -2.3715^{**} & 0.6160^* & 0.9009^* \\
\Delta \text{LREF}^*\text{UNEMP} & -2.1701 & -0.8628^* & -0.8336^* \\
\Delta \text{LREF}^*\text{INF} & -4.3267^{***} & -0.1986^* & -0.2486^* \\
\Delta \text{LREF}^*\text{TRADE} & -2.4192^{**} & 0.1208^* & -0.2446^* \\
\end{array}
\]

Notes: ***, ** and * indicate the significance levels at the 1%, 5% and 10%, respectively. The critical values for the CIPS tests were obtained from Pesaran, 2007. Maximum lag length is taken as 4, p-values are in parentheses, * indicate that the panels are stationary in $Z_{4}^{2}$.
According to Table 2, in some series, the results of the Hadri and Kurozumi (2012) and Pesaran’s (2007) CIPS) tests are different. However, when the findings are evaluated in general, some series are I(1) some are I(1) at a different level of significance. After unit root tests, slope homogeneity was tested with Swamy Shat and Delta (\(\Delta\), \(\Delta^{\hat{}}\)) homogeneity tests and findings are presented in Table 3.

### Table 3: Homogeneity Test Results

<table>
<thead>
<tr>
<th>Tests</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swamy Shat</td>
<td>118.3297***</td>
<td>145.4303***</td>
<td>96.5126***</td>
</tr>
<tr>
<td>(\Delta)</td>
<td>2112.1645***</td>
<td>1450.5166***</td>
<td>3336.7132***</td>
</tr>
<tr>
<td>(\Delta_{Adj})</td>
<td>2561.3756***</td>
<td>1759.0098***</td>
<td>3932.3542***</td>
</tr>
<tr>
<td>(\hat{\Delta})</td>
<td>11.4033***</td>
<td>14.9020***</td>
<td>10.4663***</td>
</tr>
<tr>
<td>(\hat{\Delta}_{Adj})</td>
<td>0.5661</td>
<td>0.7474</td>
<td>0.5071</td>
</tr>
</tbody>
</table>

Notes: ***, ** and * indicate the significance levels at the 1%, 5% and 10%, respectively.

According to the test results of Swamy Shat, \(\hat{\Delta}\), \(\Delta_{Adj}\), and \(\hat{\Delta}\), \(H_0\) hypothesis that slope coefficients are homogeneous rejected at 1% significance level and slope coefficients were determined to be heterogeneous in all models. Then, for presence of cointegration among the variables, Durbin-Hausman test of Westerlund (2008) are used and the results are presented in Table 4.

### Table 4: Westerlund Cointegration Test Results

<table>
<thead>
<tr>
<th>Tests</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH-g</td>
<td>3.116***</td>
<td>-1.639</td>
<td>0.258</td>
</tr>
<tr>
<td>DH-p</td>
<td>11.940***</td>
<td>1.328*</td>
<td>1.655**</td>
</tr>
</tbody>
</table>

Notes: ***, ** and * indicate the significance levels at the 1%, 5% and 10%, respectively.

In Table 4, Durbin–Hausman test of Westerlund (2008) rejects the null hypothesis of no cointegration in Model-I, Model-II and Model-II, respectively at the significance level of 1%, 10% and 5%. The results suggest that the variables are cointegrated in all the three models.

### 5. Estimation Results

In this study, cointegration coefficients were estimated using the method of Panel AMG and analysis results are presented in Table 5.
### Table 5: Augmented Mean Group (AMG) Test Results

<table>
<thead>
<tr>
<th>MODELS</th>
<th>COUNTRY</th>
<th>LREF</th>
<th>LREF*UNEMP</th>
<th>LREF*INF</th>
<th>LREF*TRADE</th>
<th>LREF*AID</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODEL-I</strong></td>
<td>Bangladesh</td>
<td>0.0355698**</td>
<td>0.0006294</td>
<td>-0.0002808</td>
<td>-0.0002523</td>
<td>-0.439181</td>
</tr>
<tr>
<td></td>
<td>Sudan</td>
<td>0.0066159</td>
<td>(0.0170617)</td>
<td>(0.0002398)</td>
<td>(0.0001657)</td>
<td>(0.3110139)</td>
</tr>
<tr>
<td></td>
<td>Chad</td>
<td>0.0141999</td>
<td>(0.034223)</td>
<td>(0.0013882)</td>
<td>(0.0000289)</td>
<td>(0.001897)</td>
</tr>
<tr>
<td>Developed Countries</td>
<td>Chad</td>
<td>0.0141999</td>
<td>(0.034223)</td>
<td>(0.0013882)</td>
<td>(0.0000289)</td>
<td>(0.001897)</td>
</tr>
<tr>
<td>Least Developed Countries</td>
<td>Chad</td>
<td>0.0141999</td>
<td>(0.034223)</td>
<td>(0.0013882)</td>
<td>(0.0000289)</td>
<td>(0.001897)</td>
</tr>
<tr>
<td>Uganda</td>
<td>0.0148519</td>
<td>(0.0124611)</td>
<td>(0.0006705)</td>
<td>(0.0000539)</td>
<td>(0.0001274)</td>
<td>(0.0216452)</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.0218176*</td>
<td>(0.123144)</td>
<td>(0.0011763)</td>
<td>(0.000305)</td>
<td>(0.000678)</td>
<td>(0.0409045)</td>
</tr>
<tr>
<td>DR Congo</td>
<td>0.0814474***</td>
<td>(0.0058764)</td>
<td>7.31e-08</td>
<td>0.0002289**</td>
<td>0.0499</td>
<td></td>
</tr>
<tr>
<td>ALL COUNTRIES</td>
<td>0.0181603***</td>
<td>(0.0054317)</td>
<td>(0.002419)</td>
<td>(0.000358)</td>
<td>(0.001501)</td>
<td>(0.0882427)</td>
</tr>
</tbody>
</table>

| **MODEL-II** | Turkey | 0.0202552 | -0.0015021** | 0.000207 | 0.0001635 | -0.7728522 |
| | Pakistan | -0.0055823 | -0.0007171 | -7.0e-06 | -0.001863 | -0.145968 |
| Developed Countries | Jordan | -0.01448 | -0.0004654 | 0.001203 | 0.000749** | -0.40307 |
| Lebanon | -0.0058479 | -0.003680*** | 0.0000373 | 0.0000431 | -0.205213* |
| Iran | -0.104736 | 0.000421 | -0.000565 | 0.0001229 | -3.861418 |
| Kenya | 0.1694297*** | -0.001508 | -0.0001246 | -0.000578*** | 0.2527668** |
| All Countries | -0.0041694 | -0.0009501 | -1.04e-06 | 0.0000574 | -0.1682956 |
| | 0.0117827 | (0.0001617) | (0.0000402) | (0.0000653) | (0.1824825) |

| **MODEL-III** | USA | 0.0052038 | -0.000194** | -0.0003621 | -0.0000613 | 0.00290707 |
| | Germany | 0.0114565* | -0.000853*** | -0.0001877 | 1.84e-06 | 0.209707 |
| Developed Countries | United Kingdom | 0.0078811** | -0.000234* | 0.0001047* | -0.0001528** |
| France | -0.003179 | -0.000767*** | -0.000577*** | 0.0001057*** |
| Italy | -0.015811*** | -0.001140*** | 0.0005355 | 0.000183*** |
| Sweden | 0.015919*** | -0.000434*** | 0.0004168*** | -0.0000554 |
| All Countries | 0.00441 | -0.0004* | -9.81e-07 | 1.74e-06 |

Notes: Standard errors in parentheses. ***, ** and * indicate the significance levels at the 1%, 5% and 10%, respectively.

According to the analysis findings for the least developed countries, in the general panel model for all countries, refugees directly affect economic growth positively, while unemployment, inflation, foreign trade and foreign aid channels are statistically insignificant. On a country-by-country basis, in Bangladesh, refugees directly affect economic growth positively; in Sudan, negatively affects through the foreign aid channel and positively affects through the foreign trade channel. Although refugees have a positive effect on growth through the inflation...
channel in Chad, this effect is slight. Through the foreign trade volume channel, refugees affect the growth negatively in Tanzania and positively in the Democratic Republic of Congo. However, the effect of foreign trade on growth is very slight in both countries. As in Sudan, the foreign aid channel negatively affects growth in the Democratic Republic of Congo.

In developing countries, according to analysis findings for all countries, refugees are statistically insignificant on growth, both directly and through channels of interaction. However, when the results are evaluated on a country-by-country basis, in Turkey, refugees affect growth negatively through the unemployment channel and in Jordan, this effect is negative through foreign trade channel but this effect slight. In Lebanon, refugees negatively affect growth through both unemployment and foreign aid channels but in Kenya, this effect is positive both directly and through foreign aid channel.

In developed countries, according to analysis findings for all countries, refugees negatively affect growth through the unemployment channel, but this effect slight. On a country-by-country basis, in the USA, refugees have a negative impact on growth through the unemployment channel. In Germany, refugees that affect growth negatively slight through the unemployment channel increase growth directly with a higher coefficient. In the United Kingdom, refugees affect growth positively through inflation channel and directly; negatively affect foreign trade and unemployment channels. However, the positive impact of refugees on growth is stronger. In France, refugees affect growth negatively through unemployment and inflation channels and positively affect growth through foreign trade channel but all effect is slight. Within developed countries, refugees directly affect economic growth negatively only in Italy. On the other hand, refugees affect growth negatively through unemployment channels and positively affect through the foreign trade channel. In Sweden, refugees that directly affect growth positively have a similar effect with the unemployment and inflation channel.

**Conclusion**

With the effect of civil war and regional conflicts in the world, refugees have become an important socio-economic problem for both developed and developing countries. Especially with the effect of the civil war in Syria, refugees are one of the most popular issues recently. On the one hand, the policies of developed countries towards refugees, and on the other hand, the economic problems of developing neighboring countries lead to deepening of the issue. In addition to social issues such as cultural adaptation, the fact that refugees affect national economies in
many ways such as unemployment, inflation and growth increase efforts to solve the problem.

In this study, the impact of refugees on economic growth is analyzed using the AMG in 18 top refugee-hosting countries between 1994 and 2017. The impact of refugees on growth has been estimated both directly and indirectly through unemployment, inflation, trade and foreign aid channels. The foreign aid interaction variable has been used in the least developed and developing countries. According to stage of development, countries are categorized as the least developed countries (Bangladesh, Sudan, Chad, Uganda, Tanzania, Democratic Republic of Congo), developing countries (Turkey, Pakistan, Jordan, Lebanon, Iran and Kenya) and developed countries (USA, Germany, United Kingdom, France, Italy and Sweden) and the analysis findings are presented separately for the country group and for each country.

According to analysis findings, in the least developed countries, refugees directly affect economic growth positively; taken on a country-by-country basis, similar results are seen, refugees increase growth in many of these countries directly and with interaction channels. In these countries, the fact that the economy is composed of agricultural sector is important for refugees to affect growth positively. In developing countries, refugees are statistically insignificant on growth, both directly and through channels of interaction. Among developing countries, the positive impact of refugees on growth is strong only in Kenya. In other developing countries, refugees generally affect growth negatively. In developed countries, refugees have a negative effect on growth through the unemployment channel but this effect is slight. Taken on a country-by-country basis, refugees affect growth positively, both directly and through the transfer channel in many of these countries. When accepting refugees, these countries are selective and focus on skilled and educated labor, therefore, this increases economic growth through human capital. Therefore, refugees have more strong effect on growth directly than unemployment, inflation and foreign trade channels.

In this study, the effect of transmission channels differs by country. For example, the fact that foreign trade affects growth positively in some countries and negatively in others is directly related to how the import or export volume is affected by foreign trade. When we consider the unemployment channel, refugees negatively affect growth in many countries through the unemployment channel, but have the opposite effect in Uganda and Sweden. This can be attributed to the higher marginal productivity of refugees than the local population in these countries. The uncertain effect of inflation on growth is also seen in this study, refugees increase growth in some countries and decrease in others.
through the inflation channel. Foreign aid channel (except Kenya) negatively affects growth in countries where it is statistically significant. This supports László's (2018) view that refugees are a burden on the country's economy and increase dependence on international aid, making the country more vulnerable to donor countries especially in the case of external shocks, increasing dependence on developed countries and all this negatively affects country development.

Refugees affect growth positively in least developed countries the fact that the economy is composed of agricultural sector and they affect the growth negatively through unemployment in developing countries. This reveals that if refugees are placed in underdeveloped or agriculture based regions within the country, the negative impact of refugees on the economy can be minimized in developing or some at least developed countries. In this framework, the refugees, especially in developing countries, are placed in rural areas instead of being sheltered in camps or metropolitan areas and added to the country's economy with land and agricultural supports can reverse the negative impact of refugees on the economy. When evaluated in terms of developed countries, refugees negatively affect growth through unemployment channels with low coefficients, but the overall impact of refugees on growth is positive in many of these countries. Therefore, contrary to expectations, the fact that developed countries host more refugees can be a positive contribution to the economic growth.

**References**


INVESTIGATION OF THE EFFECT OF FINANCIAL RISKS ON THE FIRM VALUE OF TEXTILE FIRMS

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1. Introduction

The main purpose of firms in financial markets is to maximize their market value. Finance managers have to make basic financial decisions while achieving this goal. These decisions are capital structure decisions, investment decisions and profit distribution decisions. Risk is one of the concepts that businesses have to pay attention to when making capital structure, investment and profit distribution decisions. Businesses face various risks in their decision processes. Considering the definitions of risk, some definitions are based on probability, chance or expected values, some are based on unwanted events or danger, and some are based on uncertainties (Aven, 2012). Risk is the probability of unexpected events in the future (Bessis, 2011). Firms may encounter a large number of risks in the literature under different names. Within the risk definitions, risks can be divided into two as systematic risks and non-systematic risks, as well as financial risk and business risk as a different distinction.

While systematic risks refer to the risks (inflation risk, exchange rate risk, interest rate risk and political risk) all of the firms are affected to different degrees, non-systematic risks (financial risk, operational risk, sectoral risk, management risk) represent the risks that can be eliminated with an effective risk management. (Gümüş & Çoşkun, 2019). Financial risk is the possibility that an organization will fail to meet its financial commitments as they come due. Rejda (2011) divided financial risks into two; external financial risks due to changes in financial markets and internal financial risks from within the firm. Business risk is defined as the risk inherent in the firm regardless of the method of financing. Business risk is generally reflected in the variability in net operating income or net cash flows (Gabriel & Baker, 1980). Another distinction is in the form of financial and non-financial risks. While financial risks arise regarding the financial decisions of the company; Non-financial risks arise in relation to commercial activities and policies (Topaloglu, 2018).

In the globalizing world, with the increasing competition, the risks faced by companies, in other words, the obstacles that may arise when reaching certain goals are diversifying. In particular, the obligation or
necessity to operate in international markets, which increases with globalization, increases the risks faced by companies. Effective management of risks poses a major challenge for all interest groups associated with companies (Noor & Abdalla, 2014). Since firms that aim to maximize firm profitability and firm value are exposed to many risks, it is important to perform risk management effectively (Waitherero, Wanyoike, & Muriu, 2019).

Therefore, firms' efforts to prepare themselves for unexpected situations reveal the necessity of managing risks. Depending on the type of risk that occurs, internal or external impacts are risk factors. In the management of risks, companies first try to determine which risks they are exposed to. The financial risk management process consists of determining the risk, evaluating the risk, performing control activities, monitoring the risks and communication in order to reduce the risk exposure of the enterprise (Bessis, 2011). If the financial risk management process is carried out effectively, it will be easier to reach the goal of maximizing the wealth of the company shareholders.

2. Literature Examining the Relationship Between Financial Risk and Firm Value

When the literature evaluating the relationship between financial risk and firm value is examined, it is seen that there are many studies. Some of the studies on this subject are as stated in this section.

Masulis (1983), examined the effect of changes in the capital leverage structure of the firm on firm value. As a result of statistical analyzes, it was found that the increase in leverage ratio had a significant and positive effect on firm value. Smith and Stulz (1985) conducted a research on why the firms wishing to maximize their market value should protect themselves from risk. In their theories they put forward, they aimed to find solutions to the following questions. Firstly, "Why can some firms not be protected from risk?", secondly “Why do some firms provide hedging against the accounting risks they are exposed to, while others provide hedging against risks on economic value?”. In their study of firms’ hedging behavior, they showed that a firm that maximizes market value can be protected for three reasons: (1) taxes, (2) financial distress costs and (3) administrative risk aversion.

Allayannis and Weston (2001), using data from 720 non-financial firms operating in the USA, investigated the relationship between the use of derivative financial instruments and Tobin Q firm value in order to avoid exchange rate risk. As a result of the research, a positive relationship was found between the use of foreign exchange derivative instruments and firm value.
In their study, Carter et al. (2006) examined the risk aversion behavior of firms in the US airline industry, and whether this risk aversion created value for these firms, between 1992 and 2003. As a result of the research, it is seen that the risk protection from jet fuels increases the value of airline firms.

The effects of financial risk and business risk on firm value in the logistics industry between 1993 and 2006 were examined by Jia and Chen (2008). According to the results obtained in the study, it has been determined that the financial risk and business risk of the logistics companies are important determinants of the firm value. Accordingly, the higher the financial risk and business risk, the lower the firm value. It is also concluded that firm size has a negative impact on firm value.

Abid and Mseddi (2010) investigated the effect of financial leverage degrees and firm risk on firm value in 403 non-financial firms between 1995 and 1999. As a result of the study, it was observed that the degree of leverage and internal Firm risk explained the changes in the firm value when the sales of the firm were negatively related to the market portfolio.

Gonzalez and Yun (2013), in their research, aimed to estimate the causal effect of risk management policies on firm value. Accordingly, in their analysis using the data of energy firms during the period of 1960-2007, they concluded that active risk management policies led to an increase in firm value. They also found that the use of derivative financial instruments had a positive effect on firm value. Golec and Gupta (2014) conducted an investigation into whether intangible customer asset investments had an impact on firm value. To help identify the metrics that best measure a firm's investment in client assets, they developed a simple model based on traditional investment theory. The regression model they created was related to a firm's revenue per customer, purchase and service expenses and returns of the customer loss rate. As a result of the analysis, they found a positive relationship between customer service costs and stock returns for firms.

Öztürk, Şahin, and Aktan (2016) aimed to determine the effect of financial risk and business risk on the firm value of companies operating in the logistics sector in their study. This object-oriented as Turkey, Brazil, Russia, India, China and operating in the logistics sector firms listed on an exchange in South Africa studied between 2011-2014. They evaluated the data obtained from the balance sheets and income statements of 30 companies. Using the multiple regression method, they analyzed Tobin's Q, Return on Equity, Growth rate, Financial Leverage and operating assets. According to the results, similar results were found with the companies operating in the logistics sector of China and India. Turkey, while the business risk firm value effects for China and India, Russia, Brazil and
South Africa are in the country has reached the conclusion that affect the value of the company's financial risks.

Şenol and Karaca (2017) evaluated the effects of the risks arising from the financial structures of the firms on the firm value with panel data analysis by using the data of the best 200 firms traded on Borsa İstanbul between 2008 and 2015. In the panel data analysis, TBNQ and PDDD, as the dependent variables, Financial Leverage (FL), Credit Risk (CR), Exchange Risk (ER) and Liquidity Risk (LR) were used. As a result of the analysis, it was found that leverage and credit risks positively affected the firm value but exchange and liquidity risks adversely affected the firm value.

Binici (2017), in his study, examined whether the financial risks had a significant effect on the market value of the firms by considering the firms traded in Borsa İstanbul on a sectoral scale. Evaluating the data of eight different sectors with panel data analysis, he concluded that the financial risk undertaken by firms had a significant positive impact on market value in all sectors except one. Topaloglu (2018) examined the relationship between financial risk and firm value of firms traded in Borsa İstanbul 100 Index in 2012-2017 period by using panel data analysis. In the research, while interest, capital, exchange rate, liquidity, and credit risk variables were used for financial risk, the firm value was evaluated with Tobin Q, Market Value/Book Value and Price/Earnings ratios. As a result of the study, it was observed that sales and receivables policies, financing decisions, liquidity status, and exchange rates, among the variables, had a significant effect on the market values of the firms.

In the study by Şenol, Karaca, and Erdoğan (2017), the effect of derivatives on financial risk management and determinants of financial risk management were discussed. For this purpose, 248 observations of 31 companies listed on BIST between 2008 and 2015 were analyzed using panel data analysis technique and panel logistic regression model. The results show that financial risk management has no effect on firm value.

Şit, Çavuçoğlu ve Ekşi (2020) investigated the effect of eight commercial banks operating in Turkey on firm value of financial risks. In the study, an evaluation was made between the years 2009-2018 of 8 commercial banks, and a total of 40 periods were examined, as the data were analyzed in three-month periods. Market value / book value of banks as dependent variable in the study; As independent variables, the ratio of net working capital to total assets, the ratio of non-performing loans to total loans, the ratio of net foreign currency position to equity and the ratio of total debt to total assets were used. As a result of the study, it was concluded that there is a long-term cointegrated relationship between the variables.
3. Purpose of Research and Data Set

The efforts to determine the values of firms by evaluating their financial status is an important issue for the firms. The firm values of firms are influenced by various factors. Some of these factors are undoubtedly associated with risk. In this study, it is aimed to investigate the effects of financial risk on market value/book value ratio, which is one of the firm value indicators of firms. For this purpose, textile firms traded in Borsa Istanbul were examined.

20 textile firms which were traded continuously in Borsa Istanbul between 2012 and 2018, and whose data can be accessed were evaluated. A 7-term balanced panel data set belonging to 20 firms was created. Accordingly, the number of observations used in the study was 140.

The panel data method was applied in this study since both time section and horizontal section data would be examined together. The generated panel regression model is as follows;

\[ FV_{it} = \beta_{it} + LR_{it} + ER_{it} + CR + FL_{it} + \varepsilon_{it} \]  

(Model 1)

The explanations of the dependent and independent variables included in the study are given in Table 1. Dependent and independent variables (Topaloglu, 2018; Senol & Karaca, 2017; Binici, 2017; Abid & Mseddi, 2010) were determined by examining the literature.

<table>
<thead>
<tr>
<th>Table 1. Dependent and Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
</tr>
<tr>
<td>Firm Value (FV)</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
</tr>
<tr>
<td>Liquidity Risk (LR)</td>
</tr>
<tr>
<td>Exchange risk (ER)</td>
</tr>
<tr>
<td>Credit Risk (CR)</td>
</tr>
<tr>
<td>Financial Leverage (FL)</td>
</tr>
</tbody>
</table>
4. Research Results

In this study, with a view to making regression estimation in the panel data analysis, firstly the suitability of the data was examined with unit root tests. Common unit root processes were examined with Levin, Lin, Chu unit root tests, and unit root results for each unit were investigated with the Im-Pesaran-Shin test. The results of the unit root tests are given in Table 2. When the results obtained were evaluated, the presence of panel unit root was not detected in the series.

Table 2. Unit Root Test Results

<table>
<thead>
<tr>
<th>Im-Pesaran-Shin unit-root test</th>
<th>Levin-Lin-Chu unit-root test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistic</td>
<td>p-value</td>
</tr>
<tr>
<td>FV</td>
<td>-2.1707</td>
</tr>
<tr>
<td>LR</td>
<td>-2.0231</td>
</tr>
<tr>
<td>ER</td>
<td>-2.6594</td>
</tr>
<tr>
<td>CR</td>
<td>-2.3139</td>
</tr>
<tr>
<td>FL</td>
<td>-2.2126</td>
</tr>
</tbody>
</table>

The results of panel regression models, the test results of the Hausman test and the evaluation of statistical problems are shown in Table 3. The Fixed Effects model was used in the analyses on the Hausman test to determine the use of the Fixed Effects model with the Random Effects model.

Table 3. Panel Data Analysis Results

<table>
<thead>
<tr>
<th></th>
<th>Fixed Effects Model</th>
<th>Random Effects Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t-stat</td>
<td>p-value</td>
</tr>
<tr>
<td>LR</td>
<td>0.39</td>
<td>0.699</td>
</tr>
<tr>
<td>ER</td>
<td>-2.77</td>
<td>0.007*</td>
</tr>
<tr>
<td>CR</td>
<td>-0.08</td>
<td>0.934</td>
</tr>
<tr>
<td>FL</td>
<td>3.22</td>
<td>0.002*</td>
</tr>
<tr>
<td>C</td>
<td>-0.96</td>
<td>0.340</td>
</tr>
<tr>
<td>F testi</td>
<td>10.98</td>
<td>0.000*</td>
</tr>
<tr>
<td>Wald Test</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When the results obtained for Model 1 were evaluated for textile firms, it was seen that there was a significant relationship between the market value/book value ratio, which is the dependent variable and representing the firm value of firms, and the independent variables of the exchange risk and financial leverage at a level of 5%. There was no significant relationship between firm value, and liquidity risk and credit risk.

When the direction of the relationship between the variables was examined, it was found that the market value/book value ratio was negatively affected by the exchange risk. Exchange rates are one of the economic indicators in the economy. Changes or deviations in exchange rates are the variables that affect the operations and performances of firms. Exchange rate risk that will lead to an increase in sales of the firm will also increase the cost of the resources that the firm will need to continue its operations (Çukur & Topuz, 1997). Therefore, it is expected that the increase in exchange rate changes will adversely affect firm values. When the relationship between firm value and financial leverage is examined and the literature is evaluated, it is seen that different findings are obtained. In this study, it is seen that firm value is positively affected by financial leverage value, which also reflects the borrowing preference of a firm.

6. Conclusions

The main purpose of financial managers in companies is to maximize market value or to make decisions that will maximize market value. The effort to maximize market value is important when considering the profit-risk-time dimension. For this reason, it is necessary for all financial actors to evaluate the firm values that are formed as a result of the decisions taken in order to maximize the market value, which is the main purpose of the companies. Especially due to globalization and increasing competition, the risks faced by businesses are diversifying and the necessity of their management arises. At this point, it is important to make effective risk management and risk management in businesses. In risk management, risks are identified, evaluated and tried not to be taken under control.

In this study, it is aimed to examine the effect of liquidity risk, exchange rate risk, credit risk and financial leverage values of textile firms on their firm values. According to the results obtained, it is seen that the firm value of the textile firms examined was affected by the exchange rate risk and financial leverage value, and liquidity risk and credit risk did not affect the firm value significantly. While the exchange risk negatively affected the
firm value of the firms examined, the financial leverage value affected the firm value positively. In the cases where sectoral evaluations are made, the results indicate that exchange risk and financial leverage value, among the financial risks, should be taken into consideration for financial actors who will invest in textile sector.

References


1. Introduction

Taylor (1911), one of the pioneers of the classical management approach, accepted that the only basis of determining the best method for achieving a business in question is scientific business analysis and the most suitable employee to be selected as a result of these analyzes (Köroğlu and Koç, 2017). Studies conducted under the leadership of behavioral scientists in the neo-classical period on productivity and organization problems that classical management approaches could not solve revealed the behavioral approach (Saltık and Asunakutlu, 2016). Employees who provide goods and services by interacting with consumers can play a key role in increasing their satisfaction by responding to the emotional demands of consumers (Kaya ve Özhan, 2012). Emotional labor is especially important in the service sector and for people who work one-on-one with customers. In this sense, some professions are more intense in terms of emotional labor, while others require less labor in this respect. The criteria of success and productivity for managers now include not only the behaviors of employees while performing their jobs, but also the emotions they feel while interacting with their customers and the way they display their behavior that is the expression of these emotions (Saltık and Asunakutlu, 2016).

Due to the nature of the business in tourist guiding, the tour guide must have long-term and deep relationships with tourists in the process of creating a tour package service. At this point, it is acknowledged that the emotional states of the tourist guide reflect on the quality of the guidance service offered together with her / his professional performance. It can be stated that job satisfaction and organizational citizenship behaviors are the determinants of the quality of tourist guidance service, where emotional labor is considered intense. In this study, a conceptual evaluation was made in terms of the effects of job satisfaction on the tourist guiding profession by accepting the antecedents of organizational citizenship behavior and emotional labor factors.
2. Conceptual Framework

2.1. Emotional Labor

The concept of emotional labor Hoschcshild (1983, p. 7), which Arlie Russel Hochschild's book "The Managed Heart" has brought to the literature, expresses it as "the management of feelings in order to create a clear face and bodily expression in order to adapt to the requirements of the job" (Avcı and Kılıç , 2011; Kaya and Özhan, 2012; Baş and Kılıç, 2014). In this context, Hochschild emphasizes two types of control: First, it is merely adjusting the response without internalizing the feeling defined as "Surface Action". Secondly, it is the emotion control that allows the employee to experience the emotion that he / she is responsible for revising and rethinking the emotion he / she feels, which is expressed as “Deep Action”, that is, acting sincerely (Öz, 2007; Yalçın, 2018). While individuals take into account the external appearance in behaving surface, individuals activate their internal beliefs in acting deeply (Güzel et al., 2013).

According to Savaşkan and Kulualp, (2019), within the context of emotional labor, two different aspects of deep behavior can be mentioned, namely, invocation and suppression: In the invocation situation, it focuses on an emotion that is not felt in the cognitive focus of the individuals at the moment but desires to feel. The fact that the employee has to suppress her real feelings in order to exhibit the emotions required by the job is the suppression behavior defined within the framework of emotional labor (Savaşkan and Kulualp, 2019). It is accepted by Akdu and Akdu (2016) that human relations are very important in the tourism sector, and it is suggested that increasing sincere behavior in this sector will increase customer satisfaction and loyalty.

Considering the distribution of the postgraduate theses written between 2007 and 2018 in the field of emotional labor, it was seen that the relationship with burnout is mostly examined, likewise, it was seen that the studies dealing with the relationship with job satisfaction and both job satisfaction and burnout are examined more intensely (Savaşkan and Kulualp, 2019). Although there is a relatively extensive literature examining the individual outcomes for those who perpetrate emotional labor (e.g., worker burnout) emotional adjustment, there is a lack of studies investigating the performance of emotional labor and its benefit in facilitating the organizational desired outcomes, particularly in the tourism context, the results experienced by visitors. (Dijk, et al., 2011).

Tourism businesses engage in a range of activities in which employees are involved in emotional labor-based techniques to achieve business goals. For example, increasing the use of skills by the guides during the tour process will cause an increase in their sincere behavior towards tour
participants (Akdu and Akdu, 2016). While guides engage in emotional labor-based interactions with tourist groups, they remain responsible for the consequences associated with the guidance process. It was observed that as the level of in-depth and sincere behavior of tourist guides increased, the level of depersonalization, which is one of the dimensions of burnout, decreased and personal accomplishment increased (Kaya ve Özhan, 2012). According to the research results of Güzel et al. (2013), it was determined that emotional labor dimensions of "deep acting" and "suppressing" emotional labor had a significant relationship with tourist guides' intention to quit.

2.2. Job Satisfaction

Job satisfaction in the relevant literature and practice has always been one of the most important issues. Although the concept of job satisfaction has not changed much in terms of its essence since it was first introduced (Amisah et al., 2016; McPhail et al., 2015; Lam et al., 2001). Job satisfaction can be an expression of the employee's feelings about many factors related to his job (Amisah et al., 2016; Budiman et al., 2014; Liao et al., 2009), as well as an expression of cognitive states (Zhao et al., 2016). The nature of the job, wage, promotion opportunities, working conditions, job security, rewarding, human and hierarchical relationships are organizational factors that affect job satisfaction (Khalilzadeh et al., 2013).

Job satisfaction is decisive for employees to display positive and negative job attitudes (Zhao et al., 2016). Since the employee with job satisfaction is committed to his / her job and organization, its low turnover rate, such as turnover, and job stress positively affects the desired outcomes (Hua & Omar, 2016; Yang, 2010). Since job satisfaction will increase the sense of trust of the employees, it is expected that their performance will also increase (McPhail et al., 2015). Otherwise, in a situation known as job dissatisfaction, the employee will not have positive feelings about her job and her/his emotions such as morale, motivation and happiness will be negative. Negative results such as absenteeism, intention to leave the job, frequent leave, late arrival, inefficiency, and low performance are observed in such employees (McPhail et al., 2015; Gavcar and Topaloğlu, 2008). Since employees' satisfaction with their jobs will reduce their life stress, they will increase their overall life satisfaction and achieve positive results on work-family balance (Zhao et al., 2016).

Tourism enterprises produce services and offer them simultaneously, the guests use this service in the process and where it is produced, one of these services is tour package programs. In the evaluation phase, since it is produced with human labor (Budiman et al., 2014), the standard product feature is lost and it is formed as a result of different evaluations (Pelit and Öztürk, 2010). In addition, the continuous feedback of customers about the
performance and service quality of employees in tourism enterprises is considered to be a factor that affects the job satisfaction of the employees and increases the pressure on them (Goswami and Dsilva, 2019). It would not be false to accept that customer satisfaction in accommodation businesses is largely the result of employees' attitudes and behaviors. Tourism businesses with high customer satisfaction, preferred, rising brand value, and wanting to keep their competitive power must have employees who are successful, happy, motivated, generally healthy and have high psychological well-being, peaceful, and willingly come to work (Güler et al., 2017; Çiçek and Macit, 2016; Liu and Yang, 2009; Lam et al., 2001).

The direct impact of the employee on the success of the company places great responsibilities on the businesses and managers regarding job satisfaction (Magnini et al., 2012). The part that has the most work for managers in job satisfaction is related to organizational factors affecting job satisfaction. Because every element within the organization that affects the employee, from organizational culture to institutionalization, has more or less effect on job satisfaction (Cheung, 2014). While some workplaces exceedingly meet the expectations of the employees, others fall short of meeting the expectations. Employees whose expectations are not satisfied are negatively affected by their job satisfaction. The creation of job satisfaction within the organization depends on individual and organizational factors. Personality and expectations are factors that personally affect employee job satisfaction. Job satisfaction means satisfying the expectation for the job in one aspect. People's expectations are determined by their personalities. The structure of personality determines the person's perspective, attitudes and level of satisfaction for his job, private life and life in general. However; Individual factors such as “age, gender, education level, marital status, length of service, intelligence, ability” are individual factors affecting job satisfaction (Goswami and Dsilva, 2019; Kara et al., 2012). Individual factors are not factors that can be manipulated by intervention, but businesses often try to control individual factors by taking care to select employees who can support their organizational rules and culture (Kuruüzüm et al., 2009).

2.3. Organizational Citizenship Behavior

Akgündüz et al. (2016) defined organizational citizenship behavior as employee behaviors that cannot be enforced by a contract of employment, are not directly or indirectly defined by the official reward system, and are beneficial for the activities of an organization, useful, volunteers, and go beyond their expected roles. Alsheik and Sobihah (2019) stated that the basis of the relationship between organizational citizenship behavior and job satisfaction can be explained by the theory of social change, while an employee with a positive job satisfaction will have the same mood and attitude and more He stated that he would act willing.
In case of developing service-oriented behaviors of tourism sector employees who are in contact with their customers, it is expected that their service performance will improve and consequently the service quality will increase. Since the service quality will increase the competitiveness with the financial performance of the enterprise, tourism enterprises have developed methods and searched for new methods to ensure that their employees have organizational citizenship behavior (Arash and Baradarani, 2014). Lu et al., 2013; Nadiri and Tanova, 2010, mention five basic indicators of organizational citizenship behavior defined by Organ (1990) in their study. These are explained below:

- conscientiousness; taking the initiative in certain job roles and performing beyond standard organizational demands;
- helping colleagues: helping colleagues solve business problems;
- protect corporate resources: avoid violating company policies or private use of public resources;
- Identification with the company: employees praise the organization, defend the organization's reputation and make suggestions to improve the company;
- interpersonal adaptation: avoiding the pursuit of personal power and not intervening in matters that harm the company or colleagues.

Organizational citizenship behavior, which is used as dependent variables, is representative of voluntary role behaviors, and since it is accepted that it has an important place in employees' positive behavior, many studies have examined organizational citizenship behavior as a variable in measuring the performance of organizations. Psychological contract theory also explains the relationship between job satisfaction and organizational citizenship behavior with the interactivity rule. The employee will respond this with organizational citizenship behavior when he is satisfied and benefited. (González and Garazo, 2006).

Since organizational citizenship behavior affects the quality of the service offered to the consumer, the premise of job satisfaction was the first to be evaluated in order to encourage this behavior and increase the service quality (González and Garazo, 2006). Nadiri and Tanova (2010), in their study, argued that managers can make a huge mistake if they assume that the way to increase organizational citizenship behavior is to increase job satisfaction, which is usually associated with increasing salaries or improving working conditions. Tsai and Su (2011) explained that, unlike the ones explained so far, transformational leadership stimulates the desired organizational behaviors and this effect thus creates
organizational citizenship behavior. Mozafari et al., (2012) emphasized that neuroticism, which is considered to be a personality trait, would be important in examining the effect of personality trait on job satisfaction and permanence in their work, in which they investigated the job satisfaction and motivation of seasonal employees, and stated that one way for managers to have satisfied employees is to evaluate the personality structure of employees on time and well.

2.4. Tourist Guidance

In the definition of professional roles of tourist guides to be able to transfer and comment on archeology, history, natural and cultural heritage and other cultural areas their foreign language ability is emphasized (WFTGA, 2019). Important institutions representing tourist guides on international platforms (IFFTA, 2019) appear to be focused on their role in transferring their knowledge of cultural fields to tourists and making comments to them. Thanks to these roles, guides are also referred to as intermediaries that provide services and experiences to tourists (FEG, 2019). It is observed that the definitions made by international professional organizations for the professional roles of tourist guides and the definitions in the studies examined in the literature are almost related to the same themes.

Although there are various job descriptions of a tour guide, the role of interpreting the environment in an inspiring and entertaining way, working in a clearly defined cultural or geographic area, and the use of foreign language are among the main job descriptions (Huang et al., 2010). When the position of the tourist guide in the tourism sector is evaluated, Arslan termed Altunoz (2012) states that tourist guides are on the supply side of the industry and that the guide is perceived as a service creator by tourists. After Cohen (1985) classified the roles of tourist guides as guiding and leading on the basis of historical and modern roles, Weiler and Davis (1993) highlighted the roles of guides as motivational and environmental interpreter when compared to Cohen's (1985) classification.

While the interpretative role of the tourist guides helps tourists to analyze the cultural characteristics of the destination they experience (Lee vd., 2011), this process includes a kind of instructive role of the guides (Cheng et al. 2019). It is acknowledged that guides play an important role in the tourist’s behavior of commitment to the destination (Cheng et al. 2017; Tsaur, et al., 2018; Kuo et al.2016), as well as ensuring that tourists are satisfied with all of their travel experiences (Mossberg, 1995). Tourist guides have a mediating role with the visitors and destinations, and within this role, they ensure the satisfaction of tourists with the services they provide to tourists (Chang, 2014; Huang, et al., 2010). In their mediation role, the guides also have the function of facilitating the supportive
experiences of tourists in their foreign destinations. When it comes to experience-based interactions, a guide will embody a standard tour program sold to tourists as 'adventure', 'excitement' or 'fantasy' thanks to their professional roles (Dijk et al. 2011).

According to Chang, (2014), guides are the first service providers to provide tourists with the “real moment” and their important and multidimensional roles that can make or disrupt the trip for tourists (Huang et al., 2015; Tsaur and Lin, 2014; Huang et al., 2010; Heung et al., 2008). While tour guides have an active role in ensuring all the impressions and satisfaction of a tour on tourists, their main responsibility is to use their leadership role in solving the group's problems. This is also a situation that reduces satisfaction as they have to play many roles together during the tour, so guides should avoid short period gains (Tsaur, et al., 2018; Heung, 2008). According to Cheng, et al., (2017), tour guides, who build the trust of the customers in the process of accompanying the tour group throughout the program (Weiler and Black, 2015), have an important role in reducing the risks perceived by the customers during all their travels. Weiler and Yu, (2007) emphasized in their study that the reason why especially those who travel abroad to participate in package tours is the cultural mediator role that tourist guides will provide them, and that they expect that the risks perceived by tourists will decrease.

In some studies in the literature, it was assumed that the tour guide is a very important factor in ensuring tourist satisfaction (Albayrak, 2018; Kuo et al., 2018; Liu & Deng, 2017; Huang et al., 2015; Yuan et al., 2008; Bowie and Chang, 2005). It is assumed that the tourist guides, which are considered to be in close contact from the beginning to the end of the program with tourists who have purchased a tour program (Cheng et al., 2017; Chang, 2014), have influenced the satisfaction of tourists with the tour package they have purchased. (Chang, 2006). Thus, the perception and reaction of the tourist to an experience is partly dependent on the guide’s ability to regulate the appropriate emotional response of the tourist (Dijk et al.2011). In the relevant literature, it is accepted that the satisfaction of tourists is also directly related to the quality of the service they have purchased (Cheng et al., 2019; Kuo et al., 2018; Hansen and Mossberg 2017; Kuo et al., 2016; Chang, 2014; Raikkonen and Honkanen, 2013; Huang et al., 2010; Heung, 2008). Raikkonen and Honkanen (2013) acknowledges in their studies that there is a linear relationship between the quality of a package tour and the roles of the tour guide, and focused on the importance of the service quality of a tour guide or tour leader in determining the tourist satisfaction that will occur accordingly. Cheng et al., (2019) stated that the service quality provided by a tourist guide to tourists is determinant in the guide's destination information, presentation and communication skills. Chan, Hsu, and Baum, (2015) stated that the
most important factor that ensures the satisfaction of tourists is the service attitude and the quality of interpretation skills of the guide.

3. Conclusions

Because the roles expected of a tourist guide require multidimensional qualities such as mediation (social and economic), organizing, interpretation, animator and leadership, the guides' feelings will be decisive in the performance of this professional performance. At this point, the concept of emotional labor and the concepts of organizational citizenship behavior and job satisfaction, which are considered to be the antecedents of emotional labor concept, are included in the subject.

The consequences of emotional labor behavior in terms of employees are also considered within the scope of job satisfaction, because studies have shown that employees who exhibit superficial emotional labor behaviors experience higher levels of job dissatisfaction (Kaya ve Özhan, 2012). Although tourist guides are employees of one or more travel agencies, they are employees who have business autonomy and independence due to the nature of their work and their behavior is not capable of being directly intervened and controlled by a manager. These occupational attributes might be the possible reasons that reduce the unfavorable outcomes of emotional burden from them and on the other hand, deep and genuine acting may be positively related to organizational citizenship behavior. In the studies of Kaya and Özhan (2012), it was seen that tourist guides have a high tendency to exhibit the emotional behaviors required by the profession, which can be attributed to the high professional experience of the sample. Because the more a person has experience in his profession, the more successful he can be in displaying the necessary emotional displays. However, the level of superficial behavior of the tourist guides included in the study was low.

Considering the characteristics of the tourist guiding profession, it is suggested that the job satisfaction points should be determined very well and that they should be made applicable both at the legal level and by the tourism enterprises. However, it can be said that the social support given to the tourist guide is an important factor that positively affects both skill use and sincere behavior (Akdu and Akdu, 2016). Thus, it can be ensured that the behaviors of tourist guides explained within the scope of emotional labor and their organizational citizenship behaviors remain at a positive level. It may be suggested that academic studies on this subject should focus on research on the relationship between emotional labor, job satisfaction and organizational citizenship behavior dimensions of guides under conditions where foreign cultures are determinant.
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ECONOMIC ANXIETY TRIGGERED BY COVID-19: A RESEARCH STUDY ON THE HOARDING BEHAVIOR AND RISING RELIGIOSITY*

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1. Introduction

The covid-19 disease was first reported to emerge in Wuhan, China as of December 2019 (WHO, 2020a). It spread to 221 countries and regions. On November 15, 2020, 53.7 million cases and 1.3 million deaths have been reported by the World Health Organization (WHO) (WHO, 2020b). It has been revealed that China hid the presence of the Covid-19 disease due to economic and social concerns, as well as the relevant data, and declared it quite late. WHO eventually decided that Covid-19, which emerged in China, was a pandemic after it spread to 115 countries and regions by March 11. The total number of cases and deaths reported on the same date were 118,319 and 4,292; respectively (WHO, 2020c).

People became suspicious of the transparency and impartiality of governments and organizations. Most people who have partially overlooked such factors as global warming, environmental pollution, hunger, and untreated diseases throughout recent years have felt economically victimized during the Covid-19 outbreak. With the Covid-19 pandemic, which spread all over the world, the psychology and economic status of people have been affected by the restrictions in many government-led areas such as social, business, and education-training. It was seen that people panicked and such panic was clinched with various restrictions such as curfews on social life. It has been observed that the shelves of the grocery stores were emptied, and such materials as snack food, disinfectant, masks, and gloves have been hoarded by some individuals at once to meet their material needs. Nonetheless, sellers abruptly increased the prices of basic necessities. Moreover, it has been observed that shopping in markets and bakeries without observing social distance or without wearing masks increased the anxiety of other people in society. By the same token, with certain home-based business groups working at home, some worked at their homes for more hours, some lost their hopes of looking for a job by postponing unemployment for a while. The fear of not being able to pay the expenses bill/rent, etc. is combined with the fear of being infected by Covid-19. Besides, in some countries, administrative

*I would like to thank Prof. Dr. Gökhan Karabulut for inspiring me in establishing the connection of this issue with religion. I assume sole responsibility for possible errors and omissions.
fines have been imposed on those who refused to wear masks in public places. Even though governments imposed the obligation of observing social distancing and mask-wearing rules, it was understood that fellow citizens were far from a collective consciousness of society in paying attention to such rules.

In this study, the underlying psychological mechanisms that structure economic anxiety in a pandemic environment, the role of beliefs and knowledge, as well as subjective mental models of individuals in the spread of contagious diseases are discussed. Since Weber, there have been studies conducted in determining the relationship between the density of religious beliefs and economic attitudes, especially some religions that seemed to be associated with economic growth (Guiso et al. 2003; McCleary & Barro, 2006). Another study discussed whether excessive price increases were opportunistic in terms of religiosity. It was stated that as the level of religiosity increased, the rate of explanation as opportunism increased (Kamilçelebi, 2019a). Hence, the hoarding behavior of individuals to reduce their anxieties due to Covid-19 are to be analyzed according to their income levels in the USA through the Gallup data, and then, the increasing orientation of individuals to religion from the need for a rescuer in order to alleviate their anxiety is to be analyzed through the Pew Research Center data.

Banerjee & Duflo (2019) emphasized that the rich and talented could easily leap into sparkling places where economic success took place, whereas almost all of the remaining population held their ground even before the Covid-19 outbreak. They stated that economics overlooked the explosion of inequality all over the world, the increasing social stratification brought about by inequality, as well as the environmental disasters at our doorstep that delayed mobilization or perhaps rendered it useless.

For the people, announcements from their governments or organizations such as WHO in such emergencies are crucial. Throughout the process of the Covid-19 outbreak, it has been observed that most people expected either the government or certain organizations would have assumed such a rescuer role. Because we have a world order established precisely for such purpose. Many organizations such as the IMF, World Bank, WHO, etc. have been established following World War II in order to foster the welfare and development of underdeveloped and developing countries and to conduct maintain studies on public health by undertaking the role of “rescuer”. Nevertheless, upon considering it from a slightly broader perspective, the very existence of those organizations depends on the presence of “victims”. The form of helping people who have suffered from indigence for decades has not finalized poverty, and some diseases have not been cured yet. Even in developed countries, they have no
authority to resolve the income distribution inequality in the hoarding brought forth by the Covid-19 pandemic. Some diseases, especially seen in underdeveloped countries, have not been fully treated yet. These organizations have turned into structures that render victim’s dependent on them. These experiences may appall us, make us question ourselves and our merits, and perhaps even make us wonder if all the effort that life requires is worth making. At this point, the roles of victim, rescuer, and persecutor appear in the “drama triangle” coined by Karpman (2014), which is usually based on insecure attachments (Mikulincer & Shaver, 2016). These roles that people have to be in make them unhappy and prevent them from assuming responsibility for their own lives. Although the drama triangle can be initiated in different social structures, the first elementary environment is often the family. The autonomous efforts of the baby, who is dependent on the mother/caregiver especially during the first year of life, are not supported by the mother with the thought of protection. The growing baby’s autonomy may also be impaired if the mother begins to act on behalf of her baby. This situation can lay the foundations of an insecure structure in the child. At this point, the child unconsciously perceives himself/herself as a victim and seeks a rescuer. In this scenario, the rescuer is the mother and the child find himself/herself in difficult situations from which his/her mother would save him/her. For instance, other children in the role of persecutors may batter the child, and the father who cannot digest the insult may also engage in the role of persecutor and abuse his own child emotionally or physically. When the father gets angry with the mother for raising such a child, the child tries to rescue her mother psychologically with the rescuer role learned from the mother. It is a cycle, and roles can differ in the drama triangle. But there is no winning side in the drama triangle (Zimberoff, 2011).

Gabay et al. (2020) pointed out the potential role of socialization processes in the development of collective grievance at the group level. They stated that as with other human beliefs, victim beliefs can be learned through many different channels such as education, TV programs, and online social media. Upon adapting this victim mentality to the Covid-19 process, China, which is thought to be causing the world to suffer by concealing information about livestock markets and Covid-19, has become an economic and social victim like other countries.

Individuals are expected to rely on the statements of their government, which they perceive in a rescuer role or an organization affiliated with the United Nations such as the WHO, that has been working internationally on public health for years. Nordhaus (2013) also criticized the WHO for not considering any measures against the spread of malaria along with the increase in temperature, although it is expected from the WHO to develop different adaptation options in tackling malaria with increasing income.
Because with improved health, economic growth also increases. However, the WHO did not consider these statements during the malaria outbreak either.

The delays in the WHO’s statements regarding the pandemic decision, the lack of a clear attitude despite the declarations of the scientists who explained the ways of transmission of Covid-19, and the indecision about the use of a drug used in the treatment of Covid-19 has partially reduced the trust in the WHO. In a study, which reported lower mortality rates of Covid-19, it was claimed that the WHO left the prevention of Covid-19 with the mask-wearing and social distancing rules under the responsibility of individuals, however, some countries did not assume the responsibility of developing methods such as the contact tracing method they applied and spreading it to the whole world (Yalaman et al., 2020). At this point, it is understood that the WHO is an institution that does not try to eliminate the grievances and to reduce the anxieties of individuals, but on the contrary, reinforce them. Because there are psychological and economic explanations for hoarding behavior during a crisis. A common psychological explanation is that hoarding storable goods provides consumers with a sense of control over the risky situation created by a crisis (Grohol, 2020). Hansman et al. (2020) stated that it was not unreasonable to hoard storable consumer goods in a crisis. At this point, the WHO could reduce the anxiety of individuals with its explanatory information and by exemplifying the measures to reduce the spread of Covid-19 in some countries.

In one of the studies presenting that panic purchases were made regarding Covid-19, a daily consumer panic index was generated for 54 countries using Google search data with relevant keywords obtained throughout January 1 and April 30, 2020. The index demonstrated the widespread consumer panic in most countries which differs significantly between countries in terms of timing and severity of the panic, especially as of March 2020. It has been stated that Covid-19 significantly increased consumer panic. The research also dealt with government policies, and internal movement restrictions - whether announced by domestic or foreign governments - largely created significant short-term panic lasting from one week to ten days. Internal movement restrictions announced early in the pandemic process caused more panic than those announced later (Keane & Neal, 2020). Along with Covid-19, it was revealed that especially the lower income group experienced more anxiety and distress (Kamilçelebi, 2020).

IRI (2020) revealed that there was a sharp increase in market spending and an increase in hoarding during the COVID-19 outbreak with the crisis intensifying in several European countries and the USA. After March 15, these countries observed significant increases in the sales of fresh fruits and vegetables as well as packaged needs such as toilet paper, pasta, rice,
and wheat flour compared to the previous year. By April, these sales growths were drastically reduced. Despite the increase in all these hoarding behaviors, the Gallup data has again revealed the reality of income inequality accompanying the hoarding behavior as a result of the Covid-19 outbreak. According to the results of this data, it was observed that due to the Covid-19 pandemic in the USA, higher-income groups became more advantageous than other income groups during panic purchases in terms of income level.

As individuals update their beliefs, especially when these events are evident, they tend to disproportionately weigh on recent events (Tversky & Kahneman, 1973; Kamilçelebi, 2019b; Malmendier & Nagel, 2011). Thus, the formation of religious beliefs during the Covid-19 pandemic may differ significantly from more traditional economic shocks. In the study conducted by Fetzer et al. (2020), significant heterogeneity was found in religious beliefs regarding mortality and contagiousness, which have been two main features related to the risk of the Covid-19 pandemic. In real-time experiments, it was seen that providing information on those features causally shapes economic anxiety within the population. As for the majority of the population, subjective mental models underestimated the non-linear nature of the spread of contagious diseases. The heterogeneity in individuals’ mental models has significantly shaped their perceptions of the severity of the pandemic and influenced their concerns regarding its impact on the economy. It turned out that the US citizens were seriously concerned about their economic situation from the beginning and the middle of March due to Covid-19.

There have been individuals who thought that China, where the Covid-19 outbreak first appeared, should have been punished. Researches on punishment have also been conducted in collective action studies. In one of these studies, the main emphasis was on rationalizing the coherence of individuals to social norms, and the understanding that those who violate the norm would be punished by the rest of the society. Those who fail to punish those who commit the violation and those who fail to do so would also be punished. Such an order would tend to continue accordingly. Game theory can explain the extent to which such an argument can be put forward in a logically consistent way, and therefore the norms are quite stringent (Fudenberg & Maskin, 1986; Abreu, 1988). Notwithstanding, it has been observed since the first emergence of Covid-19 that no such common social norm exists around the world. The main point is to ensure that the standards comply with livestock markets where no standards are abided by. Because failing to comply with the mask-wearing rule, the notion of punishing China, etc. consists of the result of the Covid-19 pandemic, but the important thing is to take all measures without punishment.
Many of the examples emphasized by Ostrom (1990) in this manner are retrieved from small communities that dwell according to a norm expecting community members to behave the way everyone else does. For example, Swiss cheese producers residing in the Alps have benefited from joint ownership of the grazing lands on which they graze their cattle for centuries. Since the lands have not been owned by anyone, they have not become barren due to negligence, and grazing to the detriment of others has been avoided. Since those who violate the rules would have been deprived of grazing rights, they have been strictly abiding by the rules. Upon considering this, Ostrom argued the superiority of collective proprietorship over private proprietorship.

Throughout history, people have been known to empathize with others and often share their money or property with them without considering their own interests (Kamilçelebi & Gürsoy, 2020). Therefore, instead of reminding people of a punishment and nudging them (Thaler & Sunstein, 2009), it is necessary to create a cultural infrastructure consisting of a behavior system that does not require that punishment.

2. Scope and findings of the research

Covid-19 was encountered in 203 countries and regions around the world by the end of March, the period considered in the study. The number of reported infection cases is 750,890, and the number of deaths is 36,405. 163,014 cases and 2,836 deaths have been reported from the Region of the Americas (WHO, 2020d). The difference among income groups manifested itself even in hoarding behaviors due to Covid-19. There are differences among income groups even when people mostly revert to religions. The data obtained from both the Gallup and Pew Research Center are utilized in the study. Research findings usually involve March 2020. The findings of the Pew Research Center survey are the findings of a survey conducted with 11,537 US adult citizens using the American Trends Panel over the period 19-24 March 2020. The Gallup data in the figures are based on phone interviews with 8,572 adults randomly selected by Brookings from the Gallup Panel over the period between March 16 and March 22, 2020.
Table 1: The Change of Americans’ Lives with the Covid-19 Outbreak

% saying that, as a result of the coronavirus outbreak, their personal life has changed

<table>
<thead>
<tr>
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<th>Changed it a major way</th>
<th>Changed, but only a little bit</th>
<th>Stayed about the same</th>
</tr>
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<tbody>
<tr>
<td>All Adults</td>
<td>44</td>
<td>44</td>
<td>12</td>
</tr>
<tr>
<td>Men</td>
<td>41</td>
<td>46</td>
<td>12</td>
</tr>
<tr>
<td>Women</td>
<td>47</td>
<td>41</td>
<td>11</td>
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<tr>
<td>Upper income</td>
<td>54</td>
<td>39</td>
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<tr>
<td>Middle income</td>
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<td>45</td>
<td>10</td>
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<td>Lower income</td>
<td>39</td>
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According to Table 1, more than 40 percent of Americans state that their lives have drastically changed due to Covid-19. The hoarding of food, medical supplies, or cleaning supplies is among the most volatile ones. Accordingly, stock rates are 39% in a random sample of the US adults (n = 3,078) between March 13-15, whereas 52% between March 16-19 (n = 4,342), and 59% between March 20-22 (n = 3,555) (GALLUP, 2020).

Figure 1: Affluent Stocking Up the Most


As illustrated in Figure 1, the income inequality among individuals also indicates its difference in hoarding behavior. It is seen that individuals of higher income groups in the USA are much more likely to claim to “hoard
food, medical supplies or cleaning supplies”. It is observed that the hoarding behavior of the lower income group is very low in proportion to their income. Covid-19 appears to deepen social class discrimination in terms of income.

![Figure 2: Working from Home Easier for the Affluent](source)

**Figure 2: Working from Home Easier for the Affluent**


As illustrated in Figure 2, the capacity to work at home depends largely on the type of profession. It is observed that there are big differences in income among employees who report working at home compared to those who stay at home but cannot work. It is predicted that Covid-19 would deepen economic inequality. Moreover, it has been revealed that the lowest income group in the USA is detected as the most distressed group due to Covid-19 (Kamilçelebi, 2020).

The insufficiency of the statements of the governments and WHO as well as the prominence of the income level inequality of the individuals suggest that although some of them had opportunities to work at home, others work in crowded environments cause an increase in the anxiety of the individuals. Therefore, it is noticed from Google searches that individuals who cannot find “material rescuers” tend to take shelter in spiritual ones.
According to Figure 3, the increase in daily data of Google searches for worship in 95 countries worldwide is followed by the infection of most countries’ populations as of March 11, 2020. Increasing prayers involve a global phenomenon and all countries (except the least religious 10%) have seen significant increases in their share of searching for prayers. The largest increase in prayer searches is shown in darker shades of green for countries. In regional terms, the largest increases occur in Africa, South America, and Indonesia, some of the world’s most religious regions. In general, the more religious societies searched for more online prayers. Although the search for prayers has increased for all major religious sects, such an increase is significant merely for Christians and Muslims.

It is known that a measure of religiosity is created using information obtained from Google Trends (Yeung, 2019). It is stated that the searches for prayers in all religions conducted on Google with the fear of Covid-19 have increased worldwide. Increased searches for words such as “God”, “Allah”, “Muhammad”, “Quran”, “Bible”, “Jesus”, and to a lesser extent “Buddha”, “Vishnu”, and “Shiva” have been found (Bentzen, 2020). People’s Google searches can be interpreted as the fear of Covid-19, using this method as a result of the closure of places of worship due to social restrictions to mitigate their anxiety. Besides the transparency of governments regarding Covid-19, the importance they attach to people’s health and lives, the inadequacy of people’s economic contributions, and the lack of provisions of organizations that help people around the world

Figure 3: The Rise in Prayer Search Shares Across the Globe


Note: It is shown that the closer to the darker shades of green, the more the search for prayers increases, and the missing data are shown in gray.
for such extraordinary situations, and people’s trust in these institutions may revert to such a spirituality.

In poorer, more insecure countries with higher income inequalities, their share of searching for prayers has increased more, but such an effect is only due to the more religiousness of those countries. This suggests that, rather than the potential need for religion, the presence of religion may be crucial for its use in dealing with anxiety and fear. The results indicate that more than half of the world’s population prayed for the termination of Covid-19 by the end of March 2020. Covid-19 has also affected the religious behavior of US citizens. More than half (55%) of the US adults claimed that they prayed for an end to the spread of Covid-19. Most of the US citizens (86%) and the US Christians (73%) stated that they prayed during the pandemic. There are also those who hardly or never pray (15%), and who do not belong to any religion (24%). With the closure of churches to worship, 57% are reported to watch online or broadcasted sermons instead of attending religious meetings in person. Four out of ten people who regularly worship together have switched to virtual worship (Pew, 2020).

3. Conclusion

Since the WHO declared Covid-19 as a pandemic, it has given messages of observing social distancing and hygiene rules, leaving all responsibility to the initiative of individuals, and has continued to report the number of infection cases worldwide, albeit controversial. In such a situation, when the expected response from the institutions did not arrive, most of the individuals hoarded their basic needs in order to reduce their anxiety and mostly reverted to religion. At the beginning of the Covid-19 pandemic, there seemed to be a significant increase in the economic anxiety of the US citizens. Since the beginning of the Covid-19 pandemic, the inadequacy of governments and WHO’s announcements, the clarification of the income inequality of individuals, and the fact that some of them have opportunities to work at home while others work in hectic environments have increased the concerns of individuals. This type of panic purchase that people experience in times of crisis, where uncertainty prevails so much, is considered normal. Nonetheless, Covid-19 disease has once again revealed the income inequality even in hoarding behavior toward certain basic necessities. According to the results of the Gallup, it is concluded that the hoarding of the US citizens has increased due to the Covid-19 pandemic and in terms of income level, high-income groups have been more advantageous than other income groups in panic purchases. The income differences of those who could work at home are higher than those who stood at home but could not work. It is revealed that Covid-19 deepened social class discrimination in terms of income.
In such crisis times, individuals should not devolve on all the responsibility. Because it is also known from behavioral economics studies that people tend to make wrongful and irrational decisions. It is also noticed from Google searches that individuals who cannot find a rescuer in material terms, take shelter in spiritual rescuers. It is found that individuals tend to revert to religion even more throughout the world, especially in poor countries. These results indicate that most governments and institutions such as the WHO are not well prepared for such moments of crisis. When both states and organizations such as the WHO attach importance to making collective decisions, provide an atmosphere of trust and become supportive instead of leaving all the responsibility on individuals; individuals and institutions would act in favor of everyone’s interest. It would be easier to take steps together with such individuals and institutions to avoid such problems that concern the lives of the people.

References


ASYMMETRIC IMPACT OF CRUDE OIL PRICE SHOCKS ON TANKER SPOT RATES

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1. Introduction

Crude oil is considered to be one of the most important commodities that affect global economic growth (Miao et al., 2017) because it is used extensively in many different sectors such as energy, transport, agriculture, industry and production (Eurostat, 2020). Considering the ratio of the cargoes transported by sea in the world in 2019, it constitutes a large part of 18.3% by weight (UNCTAD, 2020a), which shows how important it is for the world.

As with all other types of maritime transport sectors, tanker transport has a derived demand structure (Duru, 2019:49). Differentiation in production levels and resource distribution in some regions of the world required trade of products. For this reason, the necessity of transportation of products has arisen and transportation modes have been developed with various alternatives. The demand for the products determines the demand for the mode of transport used in the transport of the relevant product (Lun et al., 2010:17). In this context, the demand for crude oil determines the demand for tanker transportation. For this reason, all factors affecting the demand for crude oil also affect tanker transportation (Marcus, 1987:1). In the light of this information, it can be said that shipowners have almost no control over demand (McConville, 1999).

One of the most important factors determining the demand for petroleum products is their prices. In this respect, factors affecting the price are likely to affect the demand for tanker ships. Factors affecting the price of oil have been studied by many researchers. Miao et al. (2017) defined the factors affecting prices as multidimensional and stated that they are very difficult to predict. Because factors such as demand shifts, supply cuts, changes in oil production level, changes in inventory management strategies, and regional or geographical events directly affect prices, and these factors are very difficult to predict. Especially the changes in the supply side are very effective on the volatility of oil prices. Because oil
consumption is a global situation that appeals to a very large region, while oil production is a regional situation that takes place in a limited number of regions (Poulakidas and Joutz, 2009). Although this does not always give the opportunity to control prices, it forms a very effective area for oil producers. For example, in 2007, Organization of the Petroleum Exporting Countries’ (OPEC) strategies to decrease prices by increasing production were not very effective due to the increasing demand for oil from developing countries (Shi et al., 2013). Until the 2008s, oil prices followed an increasing trend. The reasons for this were investigated by the Naccache (2011) and some factors were listed. These are low investments in the sector, scarcity of resources, political and regional uncertainties in oil producing countries, increases in production costs, decisions of countries with strong reserves such as OPEC to cut production levels, and some climatic events damage production possibilities. Whatever the factors that affect oil prices, it affects the demand of oil and this change is directly reflected in the tanker market. Therefore, various studies examining the relationship between oil price and tanker market have taken their place in the literature.

Oil transportation activities by sea are carried out by tanker type ships. Tanker types can be grouped mainly as crude oil and product tankers. Crude oil tankers are used for transporting crude oil to refineries, as their names suggest, and their sizes are much larger than others. Product tankers are smaller in size and are used to transport petrochemical and petroleum-derivative products from refineries to consumption centers. Apart from these, there are also chemical and gas tankers, but their amount is very few on a fleet basis (Rowbotham, 2014:79). Oil tankers constitute approximately 28.5% of the world’s maritime fleet in terms of dwt volume (UNCTAD, 2020b). Although the importance of fossil fuels is decreasing day by day, this high rate can still be considered as an important indicator of the high dependence on petroleum products in the world.

In this study, we aimed to examine the impact of the recent (2019-2020) decline in oil prices on the tanker market. Because such situations are rare events in history and are worth studying. Also, since oil is also the fuel input for ships, it has a significant impact on costs (Stopford, 2009: 222). It is possible that the increase in cost may also cause an increase in freight rates. This situation partially complicates the relationship between oil price and freight rates. For this reason, we found it appropriate to use the asymmetric causality test while examining the relationship between variables. This method enables to determine the relationship between the shocks contained in the variables asymmetrically in 4 different combinations. Since they are more vulnerable to sudden changes, we have applied our analysis to include 9 different routes in the spot market. As a result of the analysis, the findings we have obtained have shown that the
relationship between crude oil price and freight rates on routes is asymmetrical and significantly different from each other.

In the second part of the study, the literature framing the relationship between oil price and maritime market is reviewed. The asymmetric causality test, which we used to examine the effect of crude oil price on tanker freight rate, is introduced in the third part. The data set used in the research and its properties are introduced in the fourth part. Then the results of the applied analysis are presented in the fifth part. In addition to empirical results, we examined the content of a conversation done with an expert participant from the tanker industry and examined the consistency between our results and the content to intensify our findings.

2. Literature Review

There are various studies in the literature examining the relationship between the tanker market and the oil market. These studies can be grouped as oil price oriented and other factors-oriented studies. The first price-oriented study that we wanted to mention was carried out by Poulakidas and Joutz (2009) and they examined the relationship between spot tanker freight rates and oil prices between 1998-2006. The main reason for this is the oil prices that have increased significantly in those years. As a result of their research, they determined that past values of spot tanker freights, 3-month future contracts, spot West Texas Intermediate (WTI) prices and daily oil supply are the Granger cause for current tanker freight rates. Therefore, they found that the demand for tankers is a derivative of the demand for oil. A strong demand for oil is reflected in a strong demand for tankers as well. A research question similar to the subject in our study was also asked by the Açık and Başer (2018a). In that period, oil prices dropped rapidly from around $ 100 to around $ 25. In the research, they examined the effect of this development between 2013 and 2016 on tanker sub-markets, which are freight, sale & purchase, newbuilding and demolition. Their results showed that there is a strong negative correlation between oil price and freight rates. They concluded that the increasing demand for oil due to the falling oil price increased the demand for ships and freight rates increased. Similarly, they found strong correlations with secondhand tanker prices. Prices increased as the high freight rates due to the low oil prices increased the demand for ships. Since the decrease in that period was due to a political decision rather than demand, the price decrease in crude oil reflected positively on demand of it. In addition, large tankers were used as a storage place to store oil. Therefore, the decrease in oil prices experienced in that period reflected positively on the tanker market. In the last price related study we wanted to mention, Siddiqui and Basu (2020) investigate the relationship between oil price and tanker freight rates through a decomposition-based approach. They examined the
relationship through 4 busiest tanker routes in the world. According to the results they obtained, they identified positive cyclical co-movement between variables in the medium term and long term. They also showed that the oil price is a leading variable for tanker freight rates. These results show that oil prices are naturally the most effective factor for the tanker market.

Studies linking the relationship between the tanker market and oil with non-price factors dealt with factors such as the amount of production, the level of demand and the amount of inventory. Crude oil production is one of the main determining factors in the demand for tanker ships as it determines the oil supply in the market. In this respect, there is likely to be a relationship between production level and tanker freight rates. In this respect, Lauenstein (2017) tested this relationship empirically. As a result of the research, a significant causality relationship was determined from oil production to tanker freight until 2009. In the following period, he attributed the insignificance of the relationship to the increase in excess supply in the tanker transport market. In another production level related study conducted by Açık and Başer (2018b), it was examined whether the changes in oil production level affect freight rates and whether the relationship is delayed. Since production decisions and freights are subject to many unexpected events and shocks, their nonlinear structures have been tested. Then nonlinear causality analysis was used, making it possible to determine appropriate and delayed relationships. When oil production rises, demand for tankers may rise and freight rates may rise or, conversely, decrease. However, as oil prices affect tanker transportation costs, the relationship between production and freight level loses its linearity. According to the results of the causality analysis applied within this framework, the significant causality relationship is found from the second to the fourth lag for Baltic Dirty Tanker Index (BDTI). In the Baltic Clean Tanker Index (BCTI), the significant causality was found from first to fourth lag. According to these results, changes in oil production were reflected immediately on product oil tankers, while on crude oil tankers with a delay. The probable reason for this may be that crude oil tankers are used extensively in crude oil storage services in order to avoid from price volatilities in the market. Unexpected events in the market form shocks and these shocks can affect the general trend of the market. Shi et al. (2013) analyzed the effects of shocks in the tanker market on the market by separating them as supply-related and non-supply related factors. As a result of the research, they determined that the crude oil supply shocks had a significant effect on the tanker market, but the effects of non-supply factors were insignificant. The tanker market is very sensitive to developments in the oil market due to the derived demand structure. In addition, the researchers found that the inventory levels had an adverse
effect on the tanker market. Because, according to the parcel size distribution, each type of cargo has an inventory cost and customers determine their purchasing strategies according to inventory levels.

In addition to this literature, there is also a study examining the interaction of oil price with freight rates by considering oil price as the major cost of transportation. In the research conducted by Açık and Ayaz (2018), the relationship between oil price and dry bulk freight was examined. In this examination, a time varying causality analysis was applied. The main reason for this is, that when the demand for ships increases, the freight rates increase regardless of the costs and the effect of the oil price decreases. Accordingly, it can be expected that the interaction will increase during the periods when the freight rates decrease. As a result of the method used in accordance with this expectation, the interaction increases in periods when freight rates decrease, and interaction decreases when freight rates increase.

As can be seen, the relationship between the oil price and the tanker market has been empirically tested and confirmed in many studies. Unlike these studies, we aimed to differentiate our study with a methodological differentiation, considering that the relationship between them may be asymmetrical. In addition, the incredible price drop experienced recently (2019-2020) has been a development that supports the suitability of our method. In the next section, the method we used in our study is introduced.

3. Methodology

Price of oil plays a very dominant role in the transportation costs of ships. For this reason, price changes are one of the most important determining factors in the freight rates of the ships. Because the shipowner must demand a price above the cost in order to carry out his profitable transport activities. In addition, as the demand for a product is directly affected by its price, the demand for tanker transportation is affected by the price of oil. The derived demand structure causes the maritime industry to depend on international commodity trade. Therefore, asymmetrical situations may arise in the relationship between oil price and tanker freight rates. In this respect, we decided that asymmetric causality test would be appropriate in our analysis.

The asymmetric causality test was developed by Hatemi-J (2012). Based on the logic of the classical linear causality test, it is based on the examination of the causality relationship between the shocks contained in the variables (Shahbaz et al., 2017). This analysis consists of four different combinations between positive and negative shocks. It is a useful method considering the possibility that the responses of the variables to each other are not symmetrical. Because a player's reaction to positive shocks can change according to the periods and it may be both positive and negative.
Since the method follows a Toda and Yamamoto (1995) process, the series do not have to be stationary. However, unit root analysis is still applied, because the maximum integration degrees of the series must be determined (Umar and Dahalan, 2016). We applied one break ADF test (Zivot & Andrews, 1992), one break LM test (Lee & Strazicich, 2013), two break ADF test (Narayan & Popp, 2010) and two break LM test (Lee & Strazicich, 2003) in order to determine integration degrees. GAUSS codes written by Hatemi-J (2012) were used in the implementation of our analysis. Analyzes were applied separately for each route with oil price. The data set we used in the study is introduced in the next section.

4. Data

Our dataset covers the dates between 15.04.2019 and 22.06.2020 and consists of 62 weekly observations. Also, we used the data of the 9 major crude oil spot routes instead of time charter data, as the spot rates vary more frequently than time charter values. The included variables in the analysis were presented in Table 1. The WTI variable was obtained from the Investing (2020) website, while the tanker route variables were obtained from the Fearnleys (2020) weekly reports and consisted of World Scale (WS) measure.

Table 1 Definitions of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Definition</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTI</td>
<td>WTI</td>
<td>West Texas Intermediate oil price</td>
<td>$</td>
</tr>
<tr>
<td>MEG/WEST 280</td>
<td>R1</td>
<td>Middle East Gulf to West India 280,000 DWT</td>
<td>WS</td>
</tr>
<tr>
<td>MEG/JAPAN 280</td>
<td>R2</td>
<td>Middle East Gulf to Japan 280,000 DWT</td>
<td>WS</td>
</tr>
<tr>
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<td>WS</td>
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<td>WS</td>
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<td>Sidi Kerir to West Mediterranean 135,000 DWT</td>
<td>WS</td>
</tr>
<tr>
<td>N.Arf /Euromed 80</td>
<td>R7</td>
<td>North Africa to Euro Mediterranean 80,000 DWT</td>
<td>WS</td>
</tr>
<tr>
<td>UK/Cont 80</td>
<td>R8</td>
<td>United Kingdom to Continent 80,000 DWT</td>
<td>WS</td>
</tr>
<tr>
<td>Caribs/USG 70</td>
<td>R9</td>
<td>Caribbean to US Gulf 70,000 DWT</td>
<td>WS</td>
</tr>
</tbody>
</table>

Source: Investing (2020); Fearnleys (2020).

Descriptive statistics of the variables used in the study are presented in Table 2. In the period under consideration, oil prices were around 49 US dollars on average. The highest price was 65 US dollars, while the lowest price was 3.9. When the WS values on the routes are examined, the highest value was found in the Middle East Gulf to West India 280,000 DWT (R1) route, while the lowest value was found in the West Africa to Far East 260,000 DWT (R4) route.
The movements of the variables used in the study in the period under consideration are presented in Figure 1. While the routes displayed a stable appearance until the ninth month of 2019, they later entered a volatile period. After the fluctuating period, with the oil prices falling as of the beginning of 2020, there was a first decrease and then an increase in freight rates. Due to the COVID 19 effect that started at that time, global economic growth slowed and the demand for oil decreased. Thus, record decreases were observed in global oil prices. In this case, it can be said that there has been an increase in demand to stock oil, because there has been a movement in freight rates. Of course, this effect needs to be tested empirically.

![Figure 1 Movement of the variables](source)

Source: Fearnleys (2020).
5. Results

In the asymmetric causality test, it is necessary to know the maximum integration degrees (dmax) of the series. For this, unit root tests are applied to the logarithmic series. The highest unit root degree of any of the two tested series is determined as the dmax value of that analysis. In this direction, unit root tests with structural breaks are applied and the results are presented in Table 3. Tests that take into account structural breaks in level and both level and trend for oil price and 9 route variables were applied. The applied unit root tests are one break ADF test (Zivot & Andrews, 1992), one break LM test (Lee & Strazicich, 2013), two break ADF test (Narayan & Popp, 2010) and two break LM test (Lee & Strazicich, 2003). According to the results, all variables were determined as stationary by at least one unit root test. In other words, the unit root null hypotheses were rejected by at least one test in all variables. Especially, two break ADF test (Narayan & Popp, 2010) presented significant results in all variables. According to the results obtained from unit root tests, all variables were determined as I (0).

Since all variables are I (0), the maximum integration degree (dmax) in the asymmetric causality tests were determined as 0. In addition, the maximum number of lag value is determined as 6, and the number of bootstrap simulations is 1000. Schwarz information criterion was used to determine the optimum lag. The codes written by Hatemi-J were used in the analyzes applied through the GAUSS econometric software. According to the results presented in the Table 4, positive shocks in almost all routes were identified as the cause of the positive shocks in freights. In addition, negative shocks in oil prices were determined as the cause of the positive shocks in freight rates of a group of routes. The vessels in the group with significant results from negative shocks to positive shocks are larger vessels than others.
Table 3 Unit root tests with structural breaks for variables

<table>
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<tr>
<th>Test Items</th>
<th>Mod A</th>
<th>Mod C</th>
<th>Mod A</th>
<th>Mod C</th>
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<th>Mod C</th>
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Mod A refers to break in level, Mod C refers to break in level and trend., $H_0$ is rejected ***99%, **95%, *90%.
Table 3 Unit root tests with structural breaks for variables (cont.)

<table>
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<tr>
<th>Test Items</th>
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<td>-6.81***</td>
<td>-5.14***</td>
<td>-5.47**</td>
<td>-4.30*</td>
<td>-4.90*</td>
</tr>
<tr>
<td>Frac.</td>
<td>0.35, 0.85</td>
<td>0.38, 0.77</td>
<td>0.35, 0.85</td>
<td>0.38</td>
<td>0.59, 0.85</td>
<td>0.46, 0.82</td>
<td>0.32, 0.85</td>
<td>0.48, 0.74</td>
<td>0.30, 0.85</td>
<td>0.30, 0.54</td>
</tr>
<tr>
<td>Lag</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Two break ADF test (Narayan &amp; Popp, 2010)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM S.</td>
<td>-2.87</td>
<td>-4.53</td>
<td>-3.38</td>
<td>-4.96</td>
<td>-3.68*</td>
<td>-4.44</td>
<td>-4.23**</td>
<td>-4.79</td>
<td>27.04.2020</td>
<td>18.05.2020</td>
</tr>
<tr>
<td>Frac.</td>
<td>0.40, 0.87</td>
<td>0.38, 0.74</td>
<td>0.40, 0.87</td>
<td>0.38, 0.74</td>
<td>0.41, 0.87</td>
<td>0.61, 0.82</td>
<td>0.35, 0.87</td>
<td>0.33, 0.88</td>
<td>0.32, 0.87</td>
<td>0.32, 0.56</td>
</tr>
<tr>
<td>Lag</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Two break LM test (Lee &amp; Strazicich, 2003)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mod A refers to break in level, Mod C refers to break in level and trend., H0 is rejected ***99%, **95%, *90.
In addition to the empirical findings we found, we aimed to enrich our results by including industry evaluations in our study. The content extracted from the interview dated 25 May 2020 that took place within the scope of Maritime Conversations with Mr. Kerem Alok, one of the tanker sector participants generally includes following findings about the tanker market;

- After the oil war (Russia vs USA + Saudi Arabia), the coastal storage tanks were full.
- Companies started renting out for floating storage, starting with VLCCs. VLCC daily charter rates, which are not currently on time charter, have increased significantly.
- Since VLCC ships were not enough, charters for storage have also turned to Suezmax ship types. And this situation caused their charter rates to increase.
- Aframax type vessels were not preferred much for renting for storage.
- Freight rates increased in the spot market as the amount of tankers available in the market decreased due to charters for storage.
- Fuel costs have dropped significantly, but charterers were unable to suggest to ship owners to reflect this on freight. The reason for this is that the amount of ships in the spot market decreased as most of the ships are used to store cheap crude oil.
- Small tankers with a size of 30000 dwt also started to work with full cargo without having to deal with searching for parcel cargoes. The incomes of the small tankers increased as their business increased.
- In addition, some of the chemical production shifted from China to the Arabian Gulf. This formed new opportunities for small- tonnage vessels that could not operate between China and Europe.

<table>
<thead>
<tr>
<th></th>
<th>O* to S*</th>
<th>O* to S-</th>
<th>O* to S-</th>
<th>O* to S+</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEG/WEST 280</td>
<td>3.991**</td>
<td>0.166</td>
<td>1.317</td>
<td>3.003*</td>
</tr>
<tr>
<td>MEG/JAPAN 280</td>
<td>3.100*</td>
<td>0.008</td>
<td>1.096</td>
<td>3.784*</td>
</tr>
<tr>
<td>MEG/Singapore 280</td>
<td>2.982*</td>
<td>0.006</td>
<td>1.070</td>
<td>3.448*</td>
</tr>
<tr>
<td>WAF/FEAST 260</td>
<td>3.053*</td>
<td>0.001</td>
<td>1.060</td>
<td>3.393*</td>
</tr>
<tr>
<td>WAF/USAC 130</td>
<td>3.179*</td>
<td>0.027</td>
<td>2.779*</td>
<td>0.708</td>
</tr>
<tr>
<td>Sidi Kerir/W.Med 135</td>
<td>4.151**</td>
<td>0.000</td>
<td>0.716</td>
<td>1.471</td>
</tr>
<tr>
<td>N.Arff/Euromed 80</td>
<td>0.991</td>
<td>0.790</td>
<td>1.344</td>
<td>0.073</td>
</tr>
<tr>
<td>UK/Cont 80</td>
<td>2.808*</td>
<td>0.518</td>
<td>1.169</td>
<td>0.359</td>
</tr>
<tr>
<td>Caribs/USG 70</td>
<td>3.652*</td>
<td>0.313</td>
<td>0.895</td>
<td>0.535</td>
</tr>
</tbody>
</table>

O refers to crude oil, S refers to tanker spot rate. H0 noncausality is rejected ***99%, **95%, *90%
These are the findings we obtained from the content analysis of the conservation. Shocks from increases in oil prices to increases in freight rates included in our empirical results are probably due to cost increases. Ship owners had to increase their freight rates as transportation costs increased when the crude oil price increased. Apart from this, there are causality relationships from negative shocks in oil prices to positive shocks in the freight of large-sized ships. The vessel tonnages in which this relationship is detected are vessels over 200 thousand dwt. In the content analysis, it was stated that large-sized ships were used to store cheap oil. Therefore, as the number of ships in the spot decreased after falling oil prices, an increase was observed in the freight rates of large-sized vessels. In this respect, our empirical findings are in line with content findings. However, although it was stated in the content analysis that the charter of Suezmax ships (120,000-200,000 dwt) as a storage facility increased, no relationship was determined empirically from the falling oil prices to the increasing freight rates. It was stated in the conversation that Aframax vessels (80,000-120,000 dwt) were not preferred as a storage facility and no empirical evidence could be found in our results. Of course, these variations in results may be related to other factors affecting freight rates, or the data set we have may not reflect the actual market. In addition, since large-sized ships are more likely to be preferred as a storage facility, their positive response may be statistically stronger. Positive responses of other smaller vessels may be statistically weaker. Finally, in our research, we could not find any relationship between negative shocks of oil price and freight rates other than 1 route. The reason for this is a finding parallel to the conservation content. Because of the fact that cargo owners could not demand a reduction in freight rates as the amount of tankers available in the market decreased due to the increasing demand. This situation is reflected in our empirical results. As a result, we determined the reflection of the sharp decline in oil prices on the tanker market in parallel with the information coming from the sector.

6. Conclusion

In this study, we aimed to examine the impact of the recent rapid decline in oil prices on the tanker market. There are studies in the literature that examine this relationship from different perspectives in different periods. However, in this study, we aimed to differentiate methodically, considering that the relationship between them might be asymmetrical, since the cost of the ships is mostly influenced by fuel costs. In addition, in studies examined with symmetric analyzes, the presence of asymmetric relationships may not be detected and an erroneous conclusion that there is no relationship can be reached. Also, we supported and compared our empirically obtained results with information from the tanker industry. The decline in the oil price was reflected positively on all tanker types, as the
demand for oil increased. However, the fact that large-sized vessels are preferred more as a storage as a result of the cheaper oil price, has led to a higher positive response in the freight of large vessels. Our results were said to present three conclusions; the impact of crude oil price on the tanker freight market is nonlinear and asymmetrical; increased transport costs due to the positive shocks in crude oil prices were reflected in freights, but the decreases are not reflected; and decreasing shocks in crude oil prices caused increase in freights of larger vessels due to the increase in the oil demand and in the storage facility demand. In this respect, it is thought that our study presents original findings by revealing the big picture of the sector empirically.

In future studies, the relationship between oil price and freight can be examined with a time-varying approach and it can be tested whether the period of interaction coincides with the period of decline. However, as the price of oil is a major transportation cost, the relationship is likely to exist statistically in most periods. Or, oil price can be divided into regimes and its relationship with the tanker market in different regimes can be examined. As a limitation, the unavailability of data for more routes can be shown. If it were possible, the size of the relationship could be expanded and whether there was a regional difference could be determined.

References


1. Introduction

Companies should record progress continuously and should survive in a very highly competitive environment by keeping pace with the economic and technological developments, which occur with the globalization process. The most important source providing to improve these companies established for making a profit is financial structures of them. Measuring the performances of them helps to make an effective plan to determine the targets related to the future as well as it can be evaluated as an important assistant for managers and management.

With the road, rail, air, and maritime transportation the transportation sector is one of the important tools of development in the trade and economy in the aspect of both regionalization and globalization as well as its economic, social, military, and political dimensions (Erdoğan, 2016: 189; Başdeğirmen and İşildak, 2018: 564).

The main purpose of this paper is to make an analysis for evaluating the financial performances of companies operand in the transportation index of the Exchange Market of Istanbul by using multi-criteria decision-making methods. In this context, rates calculated in the balance sheets of the eight companies for the year of 2019 has been used. The CRITIC (CRiteria Importance Through Intercriteria Correlation) method has been preferred to determine the weight values of criteria with the help of these rates. Also, the WASPAS (Weighted Aggregated Sum Product Assessment) technique has been used for determining the relative importance values and their financial performance of the decision options. By using an integrated MCDM model consists of these techniques, decision alternatives have been ranked considering the results of the financial performance analysis.
2. Literature review

When the literature on financial performance analysis of companies is reviewed, it can be seen that various studies are available. These studies can be summarized as: Akgül and Sigali (2018) examined the factors affecting the capital structure decisions of companies, Ersoy (2020) evaluated the financial performance of companies operating in the index with the help of Grey Relational Analysis (GRA), While Torlak, et al., (2011); Ömürbek and Kinay (2013); Akgün and Soy, (2016); Kendirli and Kaya, (2016) used the TOPSIS technique for this same purpose, Tufan and Kılıç (2019) preferred to use the TOPSIS and VIKOR techniques. In addition to those, Gümüş and Çibik (2019) made an analysis to evaluate the performance of the companies with the help of AHP, MOORA, and VIKOR methods, also Akkaya (2004) examined the financial performance of airline companies with the help of financial ratios by using the GRA and TOPSIS techniques. In only one study among these studies relating to the transportation sector, the AHP technique was used to calculate the weight values of the criteria.

When the previous studies that used the hybrid model consisting of CRITIC and WASPAS techniques are reviewed:

While Babatunde and Ighravwe (2019) used the integrated model to determine the renewable energy source for a rural society by using the economic and techno-economic criteria, Ghorabaee, et al., (2017) implemented the model to evaluate 3PL logistics firms. While the hybrid technique was used for solving decision-making problems faced in uncertain environment by Zhang et al., (2020) it was preferred to apply for selecting the proper software to optimize the time and attendance for private hospitals by Tuş and Adali (2019). Also, Slebi-Acevedo et al., (2020) tried to determine the functional and mechanical performance of OGFCs reinforced with nylon and polypropylene fibers, and Ighravwe and Babatunde (2018) proposed this model for selecting the proper business model for growing renewable energy studies in the developing countries.

3. The dataset of the research

Financial ratios, which are on accounting bases, used for creating the model in this study, have been obtained from financial datasheets, which relate to the year 2019, of the eight companies being on official web pages of the Public Disclosure Platform (KAP) and the database of Thomson Reuters Eikon. Selected ratios are given in Table 1.
Table 1 Financial Ratios, Which Are on Accounting Bases Used in the Study

<table>
<thead>
<tr>
<th>C1</th>
<th>Leverage Ratio</th>
<th>Total Assets / Equity</th>
<th>MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2</td>
<td>Cost of Sales / Net Sales</td>
<td>Cost of Sales / Net Sales</td>
<td>MIN</td>
</tr>
<tr>
<td>C3</td>
<td>Short Term For. Source/Total Passive</td>
<td>Short Term Liabilities / Total Liabilities</td>
<td>MIN</td>
</tr>
<tr>
<td>C4</td>
<td>Average Receivable Time</td>
<td>Number of Days Year / Average Credit Turnover</td>
<td>MIN</td>
</tr>
<tr>
<td>C5</td>
<td>Active Cycle Speed</td>
<td>Net Sales / Average Total Assets</td>
<td>MAK</td>
</tr>
<tr>
<td>C6</td>
<td>Operating Profit Margin</td>
<td>Operating Profit or Loss / Net Sales</td>
<td>MAK</td>
</tr>
<tr>
<td>C7</td>
<td>Pre-Tax Equity Profitability</td>
<td>Profit Before Tax / Average Total Equity</td>
<td>MAK</td>
</tr>
<tr>
<td>C8</td>
<td>Pre-Tax Asset Profitability</td>
<td>Profit Before Tax / Average Total Assets</td>
<td>MAK</td>
</tr>
</tbody>
</table>

Information about eight companies being in the transportation index have been obtained from the official webpage of the Public Disclosure Platform and these companies are shown in Table 2.

Table 2 Companies Operand in the Transportation Index of the Exchange Market of Istanbul

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Title of Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BEYAZ</td>
<td>Beyaz Filo Oto Kiralama A.Ş.</td>
</tr>
<tr>
<td>2</td>
<td>CLEBI</td>
<td>Çelebi Hava Servisi A.Ş.</td>
</tr>
<tr>
<td>3</td>
<td>DOCO</td>
<td>DO and CO Aktüngesellschaft</td>
</tr>
<tr>
<td>4</td>
<td>GSDDE</td>
<td>GSD Denizcilik Gayrimenkul İnşaat Sanayi ve Ticaret A.Ş.</td>
</tr>
<tr>
<td>5</td>
<td>PGSUS</td>
<td>Pegasus Hava Taşımacılığı A.Ş.</td>
</tr>
<tr>
<td>6</td>
<td>RYSAS</td>
<td>Reysaş Taşımacılık Ve Lojistik Ticaret A.Ş.</td>
</tr>
<tr>
<td>7</td>
<td>TLMAN</td>
<td>Trabzon Liman İşletmeciliği A.Ş.</td>
</tr>
<tr>
<td>8</td>
<td>THYAO</td>
<td>Türk Hava Yolları A.O.</td>
</tr>
</tbody>
</table>

4. The proposed methodology

This paper suggests an integrated multi-criteria decision-making approach composed of the CRITIC and the WASPAS methods. Several factors and variables are determinants for evaluating the companies’ performances and these factors can be seen in Table 1.
As can be seen in Figure 1, the proposed model consists of three phases. In the first phase, if any variable takes a negative or zero score, negative value transformation operations are performed to obtain positive index values because the CRITIC method, similar to other weighting techniques, cannot provide a solution in these situations. After the calculation of standard score (Z-Score), following the implementation steps of the CRITIC method, the weight values of selection criteria are determined. In the final phase of the proposed model, the relative importance scores of all decision alternatives are computed applying the WASPAS method; and these options are ranked considering the relative importance scores.

4.1. Implementation of the z-score technique

During the calculation of the weights of the factors, it is not possible to compare different dimensions existing among different indexes. In this respect, some weighting methods such as entropy, critic, etc. cannot be applied even if the value of a matrix element takes negative or zero scores. All matrix elements' values should be positive. If they are not, the negative value transformation operation can be applied for these negative values to transform to positive values. This technique consists of two implementation steps (Zhang et al., 2014). In the first step, the standard scores (Z-score) are computed; and a new matrix is constructed.

In the second step of the method, absolute value of the minimum value of the standard score matrix is calculated; and the score of A is computed.
adding 0.1 value. The decision matrix is constructed by adding the score of A to all matrix elements separately.

\[ x_{ij} = \left( \frac{x_{ij} - \bar{x}_i}{s_i} \right) \]  
(1)

In the second step of the method, absolute value of the minimum value of the standard score matrix is calculated; and the score of A is computed adding 0.1 value. The decision matrix is constructed by adding the score of A to all matrix elements separately.

\[ x_{ij}' = \left( x_{ij} + A \right) \]  
(2)

4.2. Implementation of the CRITIC technique

The CRITIC (criteria importance through inter-criteria correlation) technique introduced by Diakoulaki, Mavrotas and Papayannakis (1995) is a very useful computational tool applied successfully in various fields. In brief, this method focuses on the differences and correlation among the selection criteria. If the conflict between the two indexes is high, the positive correlation is also weak. Therefore, the weight value for a factor can be accepted as low. The CRITIC method has a very simple algorithm consisting of three implementation steps as follows: (Deng, Yeh, and Willis 2000); (Wang and Luo 2010).

Step-1: Generate the Decision Matrix

In the first step of the CRITIC technique, the decision matrix is constructed by considering the obtained data as follows:

\[
X = \begin{bmatrix}
    x_{11} & x_{12} & \ldots & \ldots & x_{1n} \\
x_{21} & x_{22} & \ldots & \ldots & \ldots \\
      \cdot & \cdot & \cdot & \cdot & \cdot \\
x_{n1} & x_{n2} & \ldots & \ldots & x_{nn} \\
    x_{m1} & x_{m2} & \ldots & \ldots & \ldots
\end{bmatrix}
\]  
(3)

Step-2: Normalization the Decision Matrix

In the second step, elements of the decision matrix are normalized with the help of equations 4 and 5 followed as below.

\[ x_{ij}' = \frac{x_{ij}}{\max_j x_{ij}} \]  
(4)
\[ x_{ij}^* = \min \frac{x_{ij}}{x_{ij}} \]  \hspace{1cm} (5)

**Step-3: Calculation of the Weight Values of the Criteria**

In the final step of the CRITIC technique, the weight values of the criteria is computed as follows:

\[
r_j = \frac{\sum_{i=1}^{n} \left( d_{ij} - \frac{1}{n} \right) \hat{d}_{ij} \left( d_{ij} - \frac{1}{n} \right) \hat{d}_{ij}}{\left( \sum_{i=1}^{n} \left( d_{ij} - \frac{1}{n} \right) \hat{d}_{ij} \right) \left( \sum_{i=1}^{n} \left( d_{ij} - \frac{1}{n} \right) \hat{d}_{ij} \right)}
\]  \hspace{1cm} (6)

\[ C_j = \sigma_j \sum_{j=1}^{n} (1 - r_{ij}) \]  \hspace{1cm} (7)

\[ w_j = \frac{C_j}{\sum_{j=1}^{n} C_j} \]  \hspace{1cm} (8)

**4.3. The WASPAS technique**

Although the WASPAS (Weighted Aggregated Sum Product Assessment) method introduced by Chakraborty and Zavadskas (2014) is a very novel MCDM method, it can be seen that this technique has given very successful and realistic results in various fields. In fact, by combining the two MCDM methods such as weighted sum model (WSM) and weighted product model (WPM) the WASPAS (Vinchurkar and Samtani 2019) method was constituted. The WASPAS method has a very simple algorithm consisting of the five implementation steps (Mardani et al. 2017); (Deveci, Cantez, and Gokaşar 2018); (Danijela, Dragisa, Snezanab, and Darjac 2016); (Karabasevic, Stanujkic, Urosevic, and Maksimovic 2016); and these steps can be seen below. By following these steps, it is possible to solve very complicated decision-making problems.

**Step-1: Construct the Decision Matrix**

In this step of the WASPAS method, the decision matrix is constructed similar to the first step of the CRITIC method.

**Step-2: Normalization of the Decision Matrix**

In the second step of the method, the same equations implemented in the second step of the CRITIC technique are used to make normalisation.
Step-3: Calculation of the Measures of WSM $p_i^1$

Equation 9 is implemented for calculating the WSM scores.

$$p_i^1 = \sum_{j=1}^{n} x_{ij} W_i$$  \hspace{1cm} (9)

Step-4: Calculation of the Measures of WSP $p_i^2$

Equation 10 is implemented for calculating the WSP scores.

$$p_i^2 = \prod_{j=1}^{n} (x_{ij}^{-})^{w_j}$$  \hspace{1cm} (10)

Step-5: Calculation of the Aggregated Measures

To compute the aggregated measures equation 11 is implemented.

$$p_i = \alpha p_i^1 + (1-\alpha)p_i^2$$  \hspace{1cm} (11)

5. A numerical illustration

The proposed integrated multi-criteria decision-making approach has been applied to evaluate the performance of companies operand in the transportation index of the Exchange Market of Istanbul in order to demonstrate the applicability of the suggested model. In the first stage an initial decision matrix has been generated as follows:

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>2.42</td>
<td>0.94</td>
<td>0.58</td>
<td>60.3</td>
<td>3.35</td>
<td>0.03</td>
<td>0.16</td>
<td>0.08</td>
</tr>
<tr>
<td>A2</td>
<td>4.35</td>
<td>0.71</td>
<td>0.37</td>
<td>51.4</td>
<td>1.00</td>
<td>0.16</td>
<td>0.51</td>
<td>0.12</td>
</tr>
<tr>
<td>A3</td>
<td>2.81</td>
<td>0.42</td>
<td>0.36</td>
<td>58.2</td>
<td>1.46</td>
<td>0.06</td>
<td>0.24</td>
<td>0.08</td>
</tr>
<tr>
<td>A4</td>
<td>1.77</td>
<td>0.86</td>
<td>0.22</td>
<td>24.0</td>
<td>0.15</td>
<td>0.14</td>
<td>-0.04</td>
<td>-0.02</td>
</tr>
<tr>
<td>A5</td>
<td>3.94</td>
<td>0.75</td>
<td>0.23</td>
<td>20.8</td>
<td>0.64</td>
<td>0.18</td>
<td>0.31</td>
<td>0.08</td>
</tr>
<tr>
<td>A6</td>
<td>27.05</td>
<td>0.68</td>
<td>0.47</td>
<td>44.4</td>
<td>0.47</td>
<td>0.31</td>
<td>0.19</td>
<td>0.01</td>
</tr>
<tr>
<td>A7</td>
<td>3.60</td>
<td>0.82</td>
<td>0.24</td>
<td>49.9</td>
<td>0.58</td>
<td>0.07</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>A8</td>
<td>1.50</td>
<td>0.50</td>
<td>0.25</td>
<td>92.6</td>
<td>0.46</td>
<td>0.42</td>
<td>0.74</td>
<td>0.48</td>
</tr>
</tbody>
</table>

It can be seen that numerical values of some index are zero. Therefore, negative value transformation was performed; and standard scores were computed by using equation 1, and the standard score matrix was constructed. In the second step of this technique, the absolute value of the minimum value in the standardized matrix was calculated as 1.755. The
value of 0.10 was added; and the score of A was computed. With the help of equation 2, the values of elements of the decision matrix were computed; and the decision matrix was constructed as is seen in Table 4.

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>2.42</td>
<td>3.25</td>
<td>3.80</td>
<td>2.34</td>
<td>4.30</td>
<td>0.72</td>
<td>1.34</td>
<td>1.67</td>
</tr>
<tr>
<td>A2</td>
<td>1.66</td>
<td>1.86</td>
<td>2.11</td>
<td>1.91</td>
<td>1.84</td>
<td>1.74</td>
<td>2.86</td>
<td>1.91</td>
</tr>
<tr>
<td>A3</td>
<td>1.47</td>
<td>0.10</td>
<td>2.02</td>
<td>2.24</td>
<td>2.32</td>
<td>0.98</td>
<td>1.67</td>
<td>1.69</td>
</tr>
<tr>
<td>A4</td>
<td>1.34</td>
<td>2.76</td>
<td>0.88</td>
<td>0.61</td>
<td>0.95</td>
<td>1.63</td>
<td>0.44</td>
<td>0.97</td>
</tr>
<tr>
<td>A5</td>
<td>1.61</td>
<td>2.10</td>
<td>0.96</td>
<td>0.46</td>
<td>1.47</td>
<td>1.96</td>
<td>1.97</td>
<td>1.67</td>
</tr>
<tr>
<td>A6</td>
<td>4.48</td>
<td>1.67</td>
<td>2.93</td>
<td>1.58</td>
<td>1.29</td>
<td>2.94</td>
<td>1.45</td>
<td>1.17</td>
</tr>
<tr>
<td>A7</td>
<td>1.57</td>
<td>2.52</td>
<td>1.04</td>
<td>1.84</td>
<td>1.40</td>
<td>1.02</td>
<td>1.23</td>
<td>1.39</td>
</tr>
<tr>
<td>A8</td>
<td>1.30</td>
<td>0.58</td>
<td>1.12</td>
<td>3.87</td>
<td>1.28</td>
<td>3.86</td>
<td>3.89</td>
<td>4.39</td>
</tr>
</tbody>
</table>

In the next step, the normalized matrix was generated by calculating the normalized values of the elements of the decision matrix as given below:

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.919</td>
<td>0.031</td>
<td>0.230</td>
<td>0.197</td>
<td>1.000</td>
<td>0.188</td>
<td>0.346</td>
<td>0.379</td>
</tr>
<tr>
<td>A2</td>
<td>0.786</td>
<td>0.054</td>
<td>0.416</td>
<td>0.241</td>
<td>0.429</td>
<td>0.452</td>
<td>0.735</td>
<td>0.434</td>
</tr>
<tr>
<td>A3</td>
<td>0.889</td>
<td>1.000</td>
<td>0.433</td>
<td>0.206</td>
<td>0.541</td>
<td>0.254</td>
<td>0.428</td>
<td>0.386</td>
</tr>
<tr>
<td>A4</td>
<td>0.975</td>
<td>0.036</td>
<td>1.000</td>
<td>0.752</td>
<td>0.222</td>
<td>0.423</td>
<td>0.113</td>
<td>0.222</td>
</tr>
<tr>
<td>A5</td>
<td>0.811</td>
<td>0.048</td>
<td>0.914</td>
<td>1.000</td>
<td>0.341</td>
<td>0.507</td>
<td>0.507</td>
<td>0.379</td>
</tr>
<tr>
<td>A6</td>
<td>0.291</td>
<td>0.060</td>
<td>0.299</td>
<td>0.291</td>
<td>0.300</td>
<td>0.761</td>
<td>0.374</td>
<td>0.266</td>
</tr>
<tr>
<td>A7</td>
<td>0.833</td>
<td>0.040</td>
<td>0.842</td>
<td>0.250</td>
<td>0.327</td>
<td>0.264</td>
<td>0.315</td>
<td>0.316</td>
</tr>
<tr>
<td>A8</td>
<td>1.000</td>
<td>0.171</td>
<td>0.781</td>
<td>0.119</td>
<td>0.297</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Afterward, correlations among indexes were computed, and correlation matrix was constructed as is seen in Table 6. In the next step, absolute value of each element of the correlation matrix was calculated and absolute value matrix was built as can be seen in Table 7.
Table 6 Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>1.000</td>
<td>0.162</td>
<td>0.449</td>
<td>0.051</td>
<td>0.196</td>
<td>-0.254</td>
<td>0.150</td>
<td>0.386</td>
</tr>
<tr>
<td>C2</td>
<td>0.162</td>
<td>1.000</td>
<td>-0.223</td>
<td>-0.273</td>
<td>0.135</td>
<td>-0.219</td>
<td>0.040</td>
<td>0.067</td>
</tr>
<tr>
<td>C3</td>
<td>0.449</td>
<td>-0.223</td>
<td>1.000</td>
<td>0.620</td>
<td>-0.666</td>
<td>0.160</td>
<td>-0.070</td>
<td>0.101</td>
</tr>
<tr>
<td>C4</td>
<td>0.051</td>
<td>-0.273</td>
<td>0.620</td>
<td>1.000</td>
<td>-0.356</td>
<td>-0.066</td>
<td>-0.372</td>
<td>-0.393</td>
</tr>
<tr>
<td>C5</td>
<td>0.196</td>
<td>0.135</td>
<td>-0.666</td>
<td>1.000</td>
<td>-0.550</td>
<td>0.000</td>
<td>-0.098</td>
<td>-0.066</td>
</tr>
<tr>
<td>C6</td>
<td>-0.254</td>
<td>-0.219</td>
<td>0.160</td>
<td>-0.066</td>
<td>-0.550</td>
<td>1.000</td>
<td>0.641</td>
<td>0.657</td>
</tr>
<tr>
<td>C7</td>
<td>0.150</td>
<td>0.040</td>
<td>-0.070</td>
<td>-0.372</td>
<td>-0.098</td>
<td>0.641</td>
<td>1.000</td>
<td>0.891</td>
</tr>
<tr>
<td>C8</td>
<td>0.386</td>
<td>0.067</td>
<td>0.101</td>
<td>-0.393</td>
<td>-0.066</td>
<td>0.657</td>
<td>0.891</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 7 Absolute Value Matrix

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>0.000</td>
<td>0.838</td>
<td>0.551</td>
<td>0.949</td>
<td>0.804</td>
<td>1.254</td>
<td>0.850</td>
<td>0.614</td>
</tr>
<tr>
<td>C2</td>
<td>0.838</td>
<td>0.000</td>
<td>1.223</td>
<td>1.273</td>
<td>0.865</td>
<td>1.219</td>
<td>0.960</td>
<td>0.933</td>
</tr>
<tr>
<td>C3</td>
<td>0.551</td>
<td>1.223</td>
<td>0.000</td>
<td>0.380</td>
<td>1.666</td>
<td>0.840</td>
<td>1.070</td>
<td>0.899</td>
</tr>
<tr>
<td>C4</td>
<td>0.949</td>
<td>1.273</td>
<td>0.380</td>
<td>0.000</td>
<td>1.356</td>
<td>1.066</td>
<td>1.372</td>
<td>1.393</td>
</tr>
<tr>
<td>C5</td>
<td>0.804</td>
<td>0.865</td>
<td>1.666</td>
<td>1.356</td>
<td>0.000</td>
<td>1.550</td>
<td>1.098</td>
<td>1.066</td>
</tr>
<tr>
<td>C6</td>
<td>1.254</td>
<td>1.219</td>
<td>0.840</td>
<td>1.066</td>
<td>1.550</td>
<td>0.000</td>
<td>0.359</td>
<td>0.343</td>
</tr>
<tr>
<td>C7</td>
<td>0.850</td>
<td>0.960</td>
<td>1.070</td>
<td>1.372</td>
<td>1.098</td>
<td>0.359</td>
<td>0.000</td>
<td>0.109</td>
</tr>
<tr>
<td>C8</td>
<td>0.614</td>
<td>0.933</td>
<td>0.899</td>
<td>1.393</td>
<td>1.066</td>
<td>0.343</td>
<td>0.109</td>
<td>0.000</td>
</tr>
</tbody>
</table>

At the final implementation step of the CRITIC technique, weight values of the criteria have been computed by using equations 5, 6, and 7 respectively.

Table 8 Weight Values of the Criteria

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>5.860</td>
<td>7.311</td>
<td>6.629</td>
<td>7.789</td>
<td>8.405</td>
<td>6.630</td>
<td>5.818</td>
<td>5.358</td>
</tr>
<tr>
<td>St Dev x Sum</td>
<td>1.314</td>
<td>2.445</td>
<td>2.001</td>
<td>2.461</td>
<td>2.092</td>
<td>1.837</td>
<td>1.600</td>
<td>1.304</td>
</tr>
<tr>
<td>$w_{ij}$</td>
<td>0.087</td>
<td>0.162</td>
<td>0.133</td>
<td>0.163</td>
<td>0.139</td>
<td>0.122</td>
<td>0.106</td>
<td>0.087</td>
</tr>
</tbody>
</table>

As a second part of the ranking implementation, in the first step of the WASPAS method, the decision matrix was constructed. In fact, it is the same as the decision matrix used in the first implementation step of the CRITIC method. Afterwards, the decision matrix was normalized by using equations 3 and 4; and the normalized matrix that can be seen in Table 4 was constructed. By following the next implementation steps of the WASPAS method, WSM, WSP, and aggregate measure scores for each decision alternative were calculated. Considering the aggregate measure score of each option, decision alternatives were ranked as is seen in Table 9.
Table 9 WSM, WSP, Performance Score and Ranking

<table>
<thead>
<tr>
<th>Options</th>
<th>WSM (p₁)</th>
<th>WSP (p₂)</th>
<th>Score (p₃)</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.37954</td>
<td>0.23826</td>
<td>0.30890</td>
<td>7</td>
</tr>
<tr>
<td>A2</td>
<td>0.40231</td>
<td>0.31198</td>
<td>0.35714</td>
<td>5</td>
</tr>
<tr>
<td>A3</td>
<td>0.51616</td>
<td>0.44683</td>
<td>0.48150</td>
<td>2</td>
</tr>
<tr>
<td>A4</td>
<td>0.46049</td>
<td>0.28250</td>
<td>0.37149</td>
<td>4</td>
</tr>
<tr>
<td>A5</td>
<td>0.55967</td>
<td>0.40139</td>
<td>0.48053</td>
<td>3</td>
</tr>
<tr>
<td>A6</td>
<td>0.31976</td>
<td>0.25986</td>
<td>0.28981</td>
<td>8</td>
</tr>
<tr>
<td>A7</td>
<td>0.37040</td>
<td>0.26440</td>
<td>0.31740</td>
<td>6</td>
</tr>
<tr>
<td>A8</td>
<td>0.59454</td>
<td>0.43334</td>
<td>0.51394</td>
<td>1</td>
</tr>
</tbody>
</table>

6. Conclusions

In this study carried out to evaluate the financial performances of the companies being in the transportation index, while the weights of criteria were computed with the financial ratio values of the companies calculated by using information and data obtained from financial datasheets related to the year 2019, productivities and performances of the companies have been measured with the help of WASPAS technique and these companies have been ranked considering their ranking performance scores.

When weight values of the criteria are evaluated, the most important criterion that has highest weight value is Average Receivable Time criterion shown with code of C4 and it has been followed by the criterion of C2 with very closer relative importance score. In general, the relative importance scores of the criteria is closer each other and distribution of the values can be accepted as rational and accurate.

As seen in the final implementation step and results of these calculations, company having highest performance score is Turkish Airlines Co. described with the code of A8 and DO and CO Aktiengesellschaft (A3) and Pegasus Airline Co. (A5) have followed this company. When the results of this study are evaluated in general, financial performance score of the companies are closer each other except Reysaş Transportation and Logistics Trade Co. The obtained results of this paper present that the proposed MCDM model suggests a methodological frame to evaluate the financial performance of both companies and their competitors. The suggested model is a novel integrated approach and there is no study applying this model in the literature on performance analysis of the companies operand in the Exchange Market of Istanbul. It is foreseen that, this model has the potential to apply to various decision-making problems faced in other indexes or sectors and it can contribute the fill the gap of the literature. Therefore, this hybrid MCDM model suggests a structural and systematic frame not only for decision-makers who perform
in the field of transportation but also other stakeholders and actors who are related to this issue.

With respect the transportation index providing to contribution to the social life, economic growth, employment with transportation services produced by these companies for all parts of the society, the number of years and criteria may be increased in the future works and novel integrated MCDM approaches, ratios for both accounting basis and market basis may be implemented to make analysis in wider perspective.

References


