

# Current Economics and MANAGEMENT SCIENCES RESEARCH

This book, which contains researches related to current Economics and Management Sciences from different sectors, consists of 7 chapters. We are very grateful to our authors having original studies, referees and everyone who contributed to the creation of this book. We hope that the studies in the book will contribute to both literature and businesses and shed light on future studies.

Editor

Assoc. Prof. Dr. Nuriye Güreş



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# **Current Economics and Management Sciences Research**

Editor

Assoc. Prof. Dr. Nuriye Güreş



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## **PREFACE**

Dear Readers,

Today, changes and developments have been constantly taking place in the fields of Economics and Management Sciences. Conducting and publishing current researches involving these topics are extremely important for scientists and businesses. In addition, with the changing demands of consumers, businesses in many sectors where there is intense competition must closely follow these changes. Especially in the present day, when technological innovations and the Covid-19 process continue, it is imperative for businesses to keep up with these challenges. In this context, with this book prepared, it has been attempted to contribute to the ability of businesses to overcome these difficult processes more easily.

This book, which contains researches related to current Economics and Management Sciences from different sectors, consists of 7 chapters. We are very grateful to our authors having original studies, referees and everyone who contributed to the creation of this book. We hope that the studies in the book will contribute to both literature and businesses and shed light on future studies.

Best regards,

Assoc. Prof. Dr. Nuriye GÜREŞ



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# CHAPTER I


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## PROTECTIONISM TENDENCIES IN INTERNATIONAL TRADE: THE EFFECT OF COVID-19

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### **1. Introduction**

Since the era of mercantilism, how countries can gain competitive advantage and gain from their trade in international trade has been debated. According to the mercantilist approach, the wealth of a country depends on the quantity of precious metals such as gold and silver in possession of that country, and in order to retain them, it should increase its exports and prevent precious metals from leaving the country by restricting its imports. According to Mercantilists, in order to achieve this, it is necessary to implement a foreign trade policy with intense state intervention. Opposing these ideas of mercantilists, Adam Smith, on the other hand, became an advocate of free trade by expressing that every country should specialize in low-cost products and export these products, and it would be more advantageous to meet the high-cost production through imports. Since these periods, many ideas have been put forward about whether protectionism or free trade in international trade would be more advantageous for countries. In some periods, countries have attempted to implement protectionist policies while defending free trade in some periods. During extraordinary periods such as war and economic crisis, it is seen that countries tend to protectionist policies to protect their domestic producers and overcome these difficult periods with the least damage.

This study aims to present an up-to-date and conceptual perspective on the possible effects of COVID-19, which is predicted to have great reflections on world trade in 2020, on global trade and protectionism trends. When the relevant literature is reviewed, it is seen that some studies are evaluating the effects of protectionist policies and trade wars on the economies of countries (Ertürk, 2017; Yücel, 2018; Chen, 2019; Chong & Li, 2019; Di et al., 2019; Evans, 2019; Kohnert, 2019; Fusacchia, 2020; Urata, 2020). To the best of the author's knowledge, the effects of COVID-19 on international trade and protectionism practices have not been studied.



In this context, this study is expected to contribute to the relevant literature and guide future studies.

In this context, this chapter firstly evaluates the concept of protectionism in international trade and gives information on the historical background of protectionism, then includes new protectionism trends and trade wars, and shares data and information on how the Covid-19 pandemic affected existing protectionism practices. In the conclusion section, an evaluation is made in the light of the data used in this chapter, and the effect of Covid-19 on the countries' protectionism policies is interpreted.

## **2. Protectionism in International Trade**

Some countries have been advocates of free trade as of past years, while some countries have advocated international trade protectionism practices. While advocates of free trade support that the economy should be free and that people can easily access the goods and services they demand, those who advocate protectionist trade practices state that such liberalization will disrupt the countries' economic and social order. Therefore, it is necessary to take some precautions to protect its trade rules in international trade (Elitaş & Şeker, 2017, p. 52).

When the world economic developments are examined, it is seen that countries tend to follow a protective policy in international trade after every economic crisis in the world. With the collapse of the USA's stock market in the "Great Depression" in 1929, many countries in the world - especially the developed countries - were affected by this crisis, and millions of people became unemployed with the closure of their businesses. In addition to this, there have been significant contractions in the trade volumes of the countries. As a result of these circumstances, countries resorted to protective measures to protect their local producers (Tekbaş & Yıldırım, 2016, p. 457). In this period, the implementation of protectionist policies of the countries greatly restricted international trade and constituted one of the reasons for the Second World War. Therefore, after the Second World War, a particular attitude was adopted against protectionist policies, and some steps were taken to increase free trade (Yiğenoğlu, 2018, p. 52).

After the global economic crisis in the world between 2007 and 2009, many countries adopted a protectionist policy in international trade, countries left the openness and tried to develop domestic trade, and increased the barriers they put in their trade with other countries following these protectionist policies (Central Bank of the Republic of Turkey, 2018). With this crisis, countries adopted these protectionist policies to protect their local producers, avoid stagnation, and overcome the crisis's effects in a lighter way (Ünay & Dilek, 2018, p. 7). In line with these developments, it can be stated that these protectionist policies implemented

by countries in a crisis environment caused the shrinkage of world trade and hit the liberal understanding of international trade.

### **3. Historical Background of Protectionism**

The emergence of the understanding of protectionism goes back to the period of mercantilism, which was a common economic view in the 16<sup>th</sup> century, which is accepted as the period in which the science of economics emerged. According to the mercantilist understanding that attaches importance to exports in foreign trade, the wealth of a country is measured by the quantity of precious metals the country has. For this reason, countries should increase the quantity of gold in the country by selling goods to get their return as gold in their trade with other countries, and they should avoid importing goods to prevent the outflow of the excess of gold they obtain (Çelik, 2019, p. 4).

In his work titled "An Inquiry into the Nature and Causes of the Wealth of Nations", which was published in 1776, Adam Smith explains that it will be more advantageous for the countries to export these products by specializing in the products they produce at low cost, and to import the products they produce with higher costs for both themselves and other countries they trade. On the basis of Adam Smith's views on free trade, there are criticisms that he made against the mercantilist thought, as in the physiocrats (Gençosmanoğlu, 2014, p. 21). Smith stated that the real wealth of a country could be measured not by preventing precious metals such as gold and silver from leaving the country but by how much goods it produces (Warlow et al., 2007, p. 76). The views expressed by the physiocrats also contributed to the free trade theory put forward by Adam Smith. François Quesnay stated that free trade is essential for the development of agriculture, which is the only source of income of society (cited from Haney, 1967, p. 194, Gençosmanoğlu, 2014, p. 17).

Quesnay, a thinker who criticized the French economy, argued that state intervention in agriculture should be eliminated and the economy should be set free (Kishtainy, 2018, p. 45-52). Following Adam Smith, David Ricardo also tried to complete the points he found lacking in Adam Smith's theory in his work titled "On the Principles of Political Economy and Taxation". Depending on this, after the protectionist trade policy advocated by mercantilism, there have been opinions arguing that free trade policy will bring prosperity to both sides (Peksevım & İltır, 2019, p. 12). Although the free trade approach developed by Adam Smith affected most of the classical economists until the beginning of the 19<sup>th</sup> century, discussions on this issue continued among the countries that completed their industrialization later compared to Britain, and different ideas were also put forward (Gençosmanoğlu, 2014, p. 25).

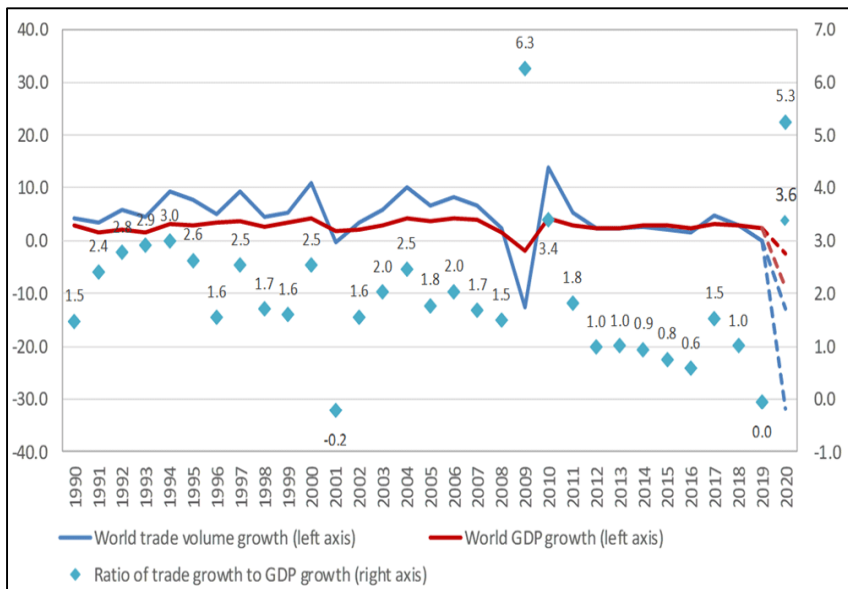
In the 19<sup>th</sup> century, when Britain played an essential role in the world economy, protectionism ideas were again on the agenda as a reaction to this power that Britain has in the global economy. In this period, Alexander Hamilton, who was the first United States secretary of the treasury, stated that state intervention in the economy was necessary to protect domestic producers, and baby industries could only survive in the face of increasing global competition in this manner (Ünay & Dilek, 2018, p. 10). With the occurrence of the First World War and the World Economic Depression (the Great Depression), two critical events in the 20<sup>th</sup> century, countries continued to apply protectionist measures in international trade to protect their national markets from the uncertainties brought about by this extraordinary crisis and withdrew into own shells. As a result, between 1929-1932, international trade declined at the level of 60% (cited from Flora, 1983, p. 461, Bakırtaş & Tekinşen, 2004, p. 89; Ünay & Dilek, 2018, p. 11). When the Second World War ended, a new international system was established, and steps were taken to increase the world trade volume, and a negative attitude was shown against protectionism policy (Yiğenoğlu, 2018, p. 52). After the Second World War, one of the pillars of the Bretton Woods system, the General Agreement on Tariffs and Trade (GATT), was a move that enabled concrete steps to be taken towards the liberalization of international trade. Afterward, it transformed into the World Trade Organization (WTO), transforming into a more institutional structure based on reducing customs tariffs and removing barriers to international trade (Çerçeve Dergisi, 2018, p. 42; Republic of Turkey Ministry of Culture, Directorate General for Copyright, 2020).

In the 1970s, the Arab-Israel War broke out, and the oil crisis emerged with the Arab states increasing the oil prices. After the oil crisis, the world took a step towards the liberalization and globalization process. With the increase in the number of countries participating in international trade after the 1980s, there was a significant increase in world trade volume. The decrease in customs tariffs and the gradual development of the global supply chain, the decrease in transportation costs, and the facilitation of inter-country communication with technological innovations have contributed to strengthening commercial connections between countries (Gençosmanoğlu, 2014, p. 82). With the emergence of the global financial crisis that affected many countries in 2008, the stagnation in the world economy also negatively affected the international trade, and the countries resorted to protective measures. Although the G-20 countries came together shortly after the global crisis began and declared that they would not take protectionist measures, many countries, including G-20 countries, subsequently introduced measures to restrict international trade (Gamberoni & Newfarmer, 2009, p. 49). Governments in the USA, Canada, Russia, China, France, Germany, Australia, and Sweden encouraged domestic production, Ecuador increased the taxes on many

imported products (food, household appliances, transport equipment, etc.), Russia increased import taxes on second-hand cars, Indonesia and India raised customs duties on steel. Obama, the US president between 2009 and 2017, approved the incentive package to encourage the use of American goods (Union of Chambers of Certified Public Accountants and Sworn-in Certified Public Accountants of Turkey [TÜRMOB], 2009).

It is indicated in the Graph 1 the growth rates of world trade (blue color), world GDP growth rates (red color), and the ratio of world trade growth to world GDP growth (green color) between 1981-2016. The effects of the global financial crisis in 2008 are clearly visible in the graph. After the emergence of the crisis, the world trade growth rate and the world GDP growth rate decreased significantly in 2009. WTO predicts that there will be a significant decrease in world trade volume and world GDP growth rates in 2020 because of the COVID-19 effects on the global economy.

**Graph 1.** Comparison of World Trade Volume and World GDP Growth Rates between 1981-2016



**Source:** World Trade Organization, 2020

In the light of this information, protectionism and free trade periods in the world economy are given in Table 1.

**Table 1.** Protectionism and Free Trade Periods in the World Economy

Period	Trend	Characteristics of the Period
1875-1914	Free Trade	The age of gold coin and liberalization in international trade
1914-1944	Protectionism	War period, recession, shrinkage period in international trade
1944-1970	Free Trade	The period of corporate capitalism, liberalization in international trade
1970-1980	Neo-Protectionism	OPEC crisis, stagflation, shrinkage period
1980-2000	Free Trade	Neoliberal policies, multinational corporations, trade liberalization, competition, non-tariff instruments, financial globalization
2008-...	Neo-Protectionism	The period of financial crisis and currency wars

**Source:** cited from Aslan, 2007, p. 5, Mangır & Acet, 2014, p. 95; Ünay & Dilek, 2018, p. 17

#### 4. Contemporary New Protectionism and Trade Wars

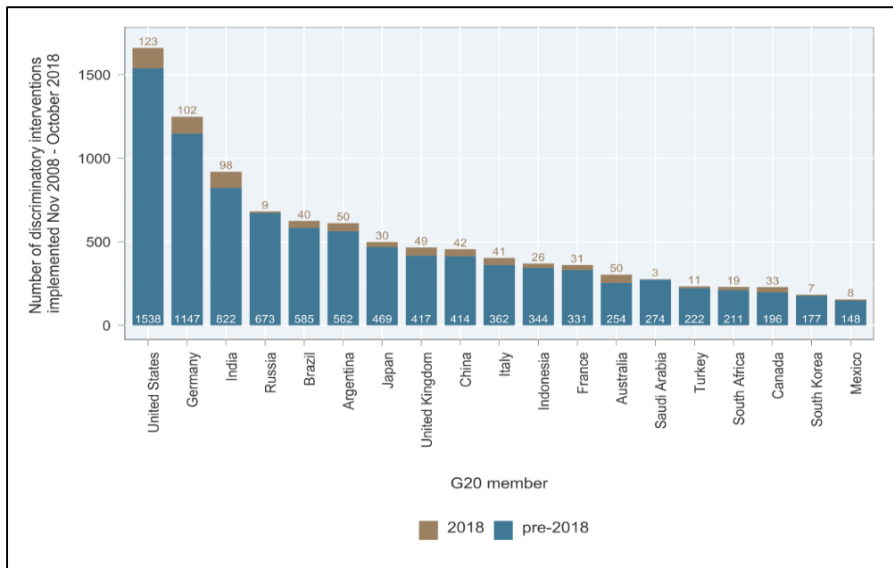
Donald Trump, who was the US president after Barack Obama, announced the economic policies he had promised during this period, and he gave the signals that he would follow a protectionist policy during his presidency with his statements that the US would review unfair commercial cooperation with the thought that it harmed its domestic manufacturers. Trump's rapid implementation of these discourses as of 2017 when he was elected as US president; brought about economic and political uncertainties in the world (Çerçeve Dergisi, 2018, p. 39). Trump advocated that he would take all necessary measures to narrow the US foreign trade deficit, and is against to import of goods to the US that are produced with the US investments made outside the United States and with US technology (The Economic Policy Research Foundation of Turkey [TEPAV], 2018). Although the United States implemented some protective policies against countries with foreign trade deficits before Trump became president, in this new period, the US started to impose trade barriers to countries with foreign trade deficits, especially to China, the country with the highest trade deficit, and the road to the trade war was introduced (Eğilmez, 2018). With the USA imposing 25% additional customs duties on iron and steel imports and 10% on aluminum imports in March 2018, China followed a similar path against 128 US origin products in retaliation for the USA's act. Following China's attack, the US imposed a 25% customs tariff in July and August 2020 on Chinese products imported by the USA because their own technologies were copied (Kaya, 2019, p. 19). The two countries' race to mutually increase customs duties on certain products has turned into a trade war. After the WTO emphasized that these USA sanctions posed a significant threat to the flow of global

trade, China, Canada, Mexico, and the EU took the issue to the WTO's disagreement panel regarding these additional tax practices (Küntay, 2018, p. 179). Concerns have been expressed that if these protectionist policies implemented by the US are maintained, it will turn into a global trade war with other countries' responses to these practices.

At present, with the decrease of the technological difference between the western countries and the eastern countries, which have completed their industrialization in advance, and especially the rapid development of the eastern and south-east Asian countries recently in the field of artificial intelligence, concerns have increased among western countries about the shift of the center of the world economy to the East. These countries have followed protective policies to maintain their positions in the world economy for products with potential trade (Konya Chamber of Commerce, 2018).

Graph 2 shows the number of commercial measures taken by G-20 countries between November 2008 and October 2018. Accordingly, as mentioned above, it is seen that the US has also implemented protectionist policies before Trump's presidency. While the US's total number of protectionist policies was 1538 before 2018, 123 protectionist policies came into force in 2018. According to Graph 2, the first three countries that took intensive commercial measures were the US, Germany, and India.

**Graph 2.** Number of Trade Measures Taken by G-20 Countries between November 2008-October 2018

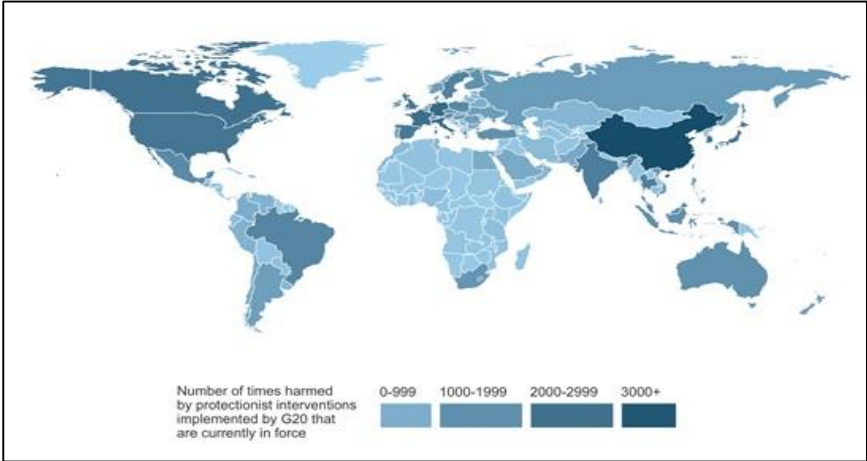


**Source:** Global Trade Alert, 2018

The level of exposure of all countries in the world from the protectionist policies implemented by G-20 countries between 2008 and 2018 is shown in Map 1. The darkness of the color on the map expresses the excess number of policies that the relevant countries affected. On the map, it is seen that the countries most affected by the protectionist policies implemented by the G-20 countries are China, Brazil, India, North America, and major economies of the European Union such as Italy, Germany, France, and Spain.

As of 2020, protectionist policies in international trade are increasing with the Covid-19 pandemic. A new environment of uncertainty has arisen, inducing protectionism with Covid-19. Restricting international trade and human mobility between countries were the first measures implemented in this uncertain environment, and with these restrictions, globalization was also under threat. There were also significant interruptions that negatively affected employment and poverty in global supply chains (Yaya et al., 2020, p. 1).

**Map 1.** The Level of Exposure of All Countries in the World from the Protectionism Policies between November 2008-October 2018



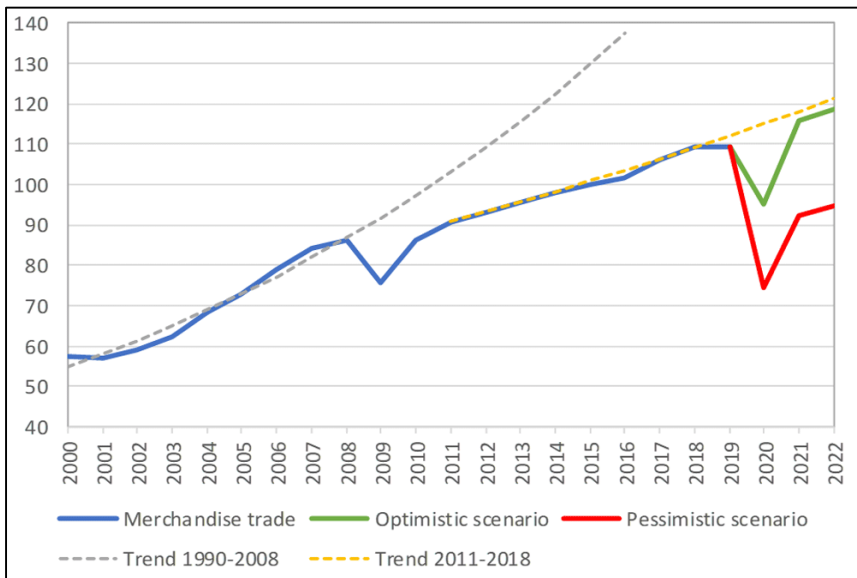
**Source:** Global Trade Alert, 2018

As of March 2020, with the rapid spread of COVID-19 to other countries globally, face masks, and hand disinfectant stocks were first exhausted, and the demand for these products in many countries became unmet. For this reason, some countries have implemented an export ban on medical products and health equipment. COVID-19 has caused countries to close their borders and restrict their international trade. During this period, US President Trump supported the domestic production of masks, ventilators, and drugs used in the fight against COVID-19 with the slogan of "Buy American" and planned to implement these production practices.

The US was not the only country to implement protectionist policies in this period. The Global Trade Alert team at the University of St Gallen, Switzerland, stated that most EU countries and 75 countries including India, Brazil, China, and Russia, applied to export taxes on medical supplies and medical equipment in 2020. On the other hand, many countries, including South Korea, Taiwan, France, and Germany, have banned domestic companies from exporting medical supplies and medical equipment (Financial Times 2020; Globaltrade, 2020). The fact that these countries imposed an export ban on medical supplies during the pandemic period left developing countries vulnerable to this health crisis. As a result of these restrictions, developing countries have difficulties accessing products such as ventilators required to deliver oxygen to patients, protective clothing used by healthcare professionals, masks, and hand disinfectants required for personal protection. The 20 developing countries most affected by the pandemic have changed the implementations related to import taxes to reach these medical supplies faster, significantly reducing or removing the tariffs on medical products (Espitia et al., 2020).

Graph 3 includes the world commodity trade volume between 2000-2020. The graph shows that the world commodity trade experienced a sharp decline after the 2008 Global Financial Crisis and then get into a rising trend.

**Graph 3.** World Commodity Trade Volume Between 2000-2022



**Source:** World Trade Organization, 2020

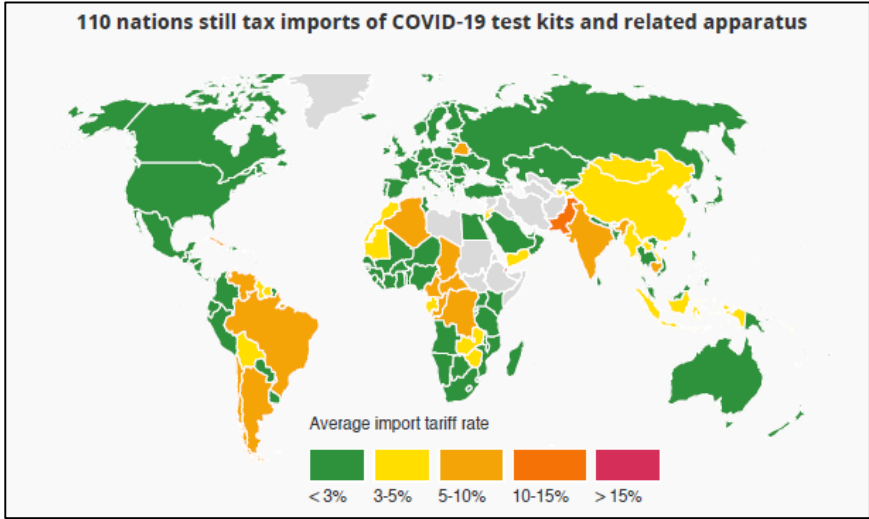
The COVID-19 outbreak that emerged at the end of 2019 had a drastic impact similar to the 2008 global crisis, and the world commodity



trade volume decreased considerably. The green color in Graph 3 reflects the optimistic scenario for the world commodity trade volume between 2020-2022; the red color represents the pessimistic scenario. In Graph 3, the index value of 2015 is accepted as 100, and other years are compared to 2015. It is seen that the decrease experienced in 2020 is the sharpest one in the last 22 years. The index value, which was 110 in 2019, will be at best 97 and at worst average of 74 index values in 2020 and decrease the same level as the trade volume in 2009.

In Map 2, import tax rates are given for COVID-19 test kits and related apparatus in the world. According to the map, 110 countries impose import taxes on COVID-19 test kits and related apparatus as of March 20, 2020. It is seen that the countries that impose the highest import taxes are those in Latin America and South and East Asia. It can be said that this situation is related to having lower effects of COVID-19 due to the season that these regions live in March 2020. It is among the remarkable findings that the countries seen in green color are the countries most affected by the COVID-19 global epidemic as of March 2020 and that these countries have imposed an import tax of less than 3% on test kits and related apparatus.

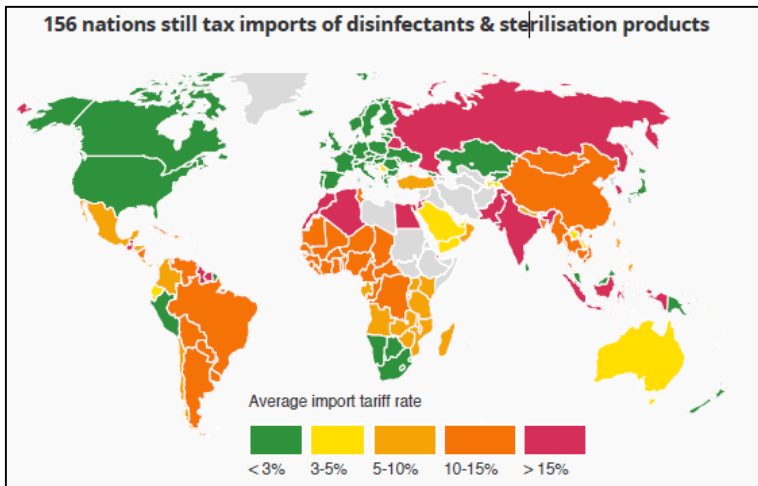
**Map 2.** Import Tax Rates of COVID-19 Test Kits and Related Apparatus



**Source:** Global Trade Alert, 2020

Map 3 contains the rates of import taxes imposed by countries on disinfection and sterilization products as of March 20, 2020. According to Map 3, 156 countries apply import taxes on these products.

### Map 3. Import Tax Rates of Countries on Disinfection and Sterilization Products

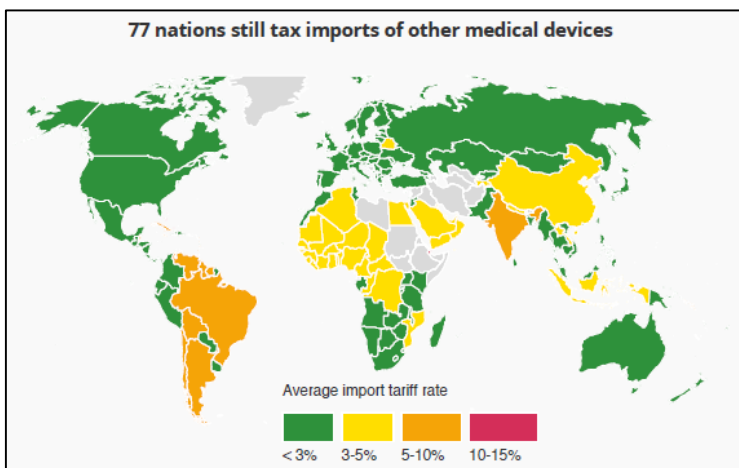


Source: Global Trade Alert, 2020

As of March 2020, it is noteworthy that countries in North America and Europe, which are more affected by COVID-19, were observed to apply less than 3% import tax on disinfection and sterilization products, while Russia, which announced the lower number of cases, applied more than 15% import tax.

Map 4 shows that the import tax rates that countries apply to other medical devices. According to the map, as of 20 March 2020, 77 countries impose an import tax on other medical devices.

### Map 4. Import Tax Rates of Countries on Medical Devices



Source: Global Trade Alert, 2020

Accordingly, while the vast majority of the countries in the Northern Hemisphere due to COVID-19 impose an import tax of less than 3% for medical devices, a maximum of 5%-10% import tax has been applied worldwide considering that medical devices will be needed. Although the countries in South America were among the countries that applied the highest import tariff in this period, it can be expected that these countries will reduce their import taxes on medical devices with the increase of COVID-19 cases in these regions as of June.

It may be possible for countries to take more inward-oriented steps to meet the current demand in the future because of closing the borders between the countries due to COVID-19, decrease in the production capacity of China in this period, and shifting the center of the epidemic from China first to Europe and then to the American continent. During this period, it is observed that many countries have taken protective measures, especially regarding the trade of medicinal products. Throughout the world's history, countries have frequently applied protectionist measures to protect their domestic producers during periods that experienced extraordinary events such as war and economic crisis, to gain a competitive advantage against other countries, and to reduce the adverse effects of these crisis periods. Therefore, with the emergence of the 2008 Global Crisis, the rapidly rising new protectionism trends among countries can be expected to deepen in the future with the effect of COVID-19 surrounding the world in 2020. In this crisis environment, countries that restrict the trade of vital medical supplies and equipment prevent countries that need these products from meeting their needs and cause them to obtain these products at high costs (Brown, 2020, p. 8).

With COVID-19, it has become more apparent how fragile the structure of global supply chains is and that many countries are dependent on China for supply. Significantly, even with the temporary closure of factories in Hubei, a production city operating in the automotive, pharmaceutical, and electronics sectors of China, production was disrupted in many regions (Javorcik, 2020, p. 112). For this reason, it can be stated that many companies, considering the crisis created by the Covid-19 pandemic, will take initiatives to shift their investments from East Asia, locate overseas supply chains in a region close to them, and reduce the supply risk. It can be expected soon that localization in the production of goods and services will come to the fore, and multinational companies will plan to move their factories or initiatives to their own countries. Correspondingly, to reduce production costs, the acceleration of the use of smart robots in production systems may be discussed in this process.

It is predicted that COVID-19 will force international trade considerably, and the world commodity trade will decrease between 13% and 32% in 2020, and it is thought that the recovery of world trade depends

not only on the global control of the epidemic but also on the policies that governments will implement in this conjuncture (Kowalski, 2020, p. 131). In this context, world trade volume may shrink further in this period with the continuation of protectionism policies, which started to rise with the 2008 crisis, with the effect of COVID-19, the decrease in countries' openness to trade and increase in their attempts to become introverted in trade.

## **5. Conclusion**

The role of international trade in the economic growth of countries has been discussed continuously since the emergence of mercantilist thinking, and which policies countries should implement to preserve their position in global trade and their competitive advantage has always been an issue that has been emphasized in every period. Since the 16<sup>th</sup> century, many opinions have been expressed regarding whether countries will profit in international trade with protectionist policies or free trade practices. When the policies in the past years are examined, it is seen that international trade is not consistently carried out through a single policy (Ünay & Dilek, 2018, p. 25). In some periods, countries defend free trade with the idea that resources are used in areas where they are most efficient, sectors gain competitive power and renew their existing technologies, better qualified and lower-cost products and services are delivered to consumers with the presence of global competition, and the world welfare may increase. In some periods, countries support protectionist practices for ensuring national security, protecting domestic producers, increasing employment within the country accordingly, and closing foreign trade deficits (Seyidoğlu, 2015, p. 151-158). Considering the world's history, it is seen that countries implement protectionist policies to protect their domestic producers, especially during extraordinary periods such as war and economic crisis, and to overcome these difficult periods with minimum damage. Many countries, including G-20 countries, turned from free trade to protectionism, especially after the global economic crisis in 2008. In these periods, although countries suppose that they will provide a competitive advantage in global trade with protectionist policies in the short term, taking measures to restrict international trade will cause consumers to reach goods and services in a long time and in a more costly way, production and labor force will decline with the decrease in the consumption of goods and services, the world trade volume will shrink, and all countries will suffer from these protectionist policies in the long run with the mutual restrictions imposed by countries (Eğilmez, 2018; Peksevim & İltar 2018, p. 8). While the understanding of protectionism has been on the rise since the global crisis and the effects of US President Trump's departure with the slogan "America First" and then implementing a series of trade restrictions affecting the whole world continue, the

COVID-19 outbreak, which is thought to have emerged at the end of 2019, has turned into a pandemic surrounding the whole world beginning of 2020 and the social and economic ties of many countries that have decided to close their borders in a short time have been interrupted, brought international trade movements to a halt. Many countries have closed their borders with this epidemic and have called for protectionism in terms of exports and imports of goods and services. Many countries have closed their borders with this epidemic and have called for protectionism in terms of exports and imports of goods and services. In particular, restrictions have been placed on the export of respirators, masks, hand disinfectants, protective clothing, and other medical supplies that countries need to fight against COVID-19. 75 countries, including most of the EU countries, India, Brazil, China, and Russia, have resorted to export taxes on medical supplies and equipment. In many countries, domestic companies are prohibited from exporting medical supplies and equipment. The emergence of the epidemic in China and the shift of its center to Europe and America, respectively, deeply affected these regions where production facilities are concentrated. Particularly, the temporary closure of some factories in China caused the disruption of production in many regions, and it was clearly seen how many countries in the world were dependent on China for supply. The WTO's announcement that the world commodity trade will decrease significantly in 2020 raises concerns, and the trade policies that countries will implement to get over the effect of COVID-19, which is moving towards a global economic crisis rather than a health crisis, are of vital importance. In recent years, protectionist policies have been on the rise with the 2008 crisis and the applications of US President Trump. The increasing continuation of these policies with the effect of COVID-19, the measures that countries will take towards introversion with the thought of reducing trade deficits and taking fewer blows from this crisis may cause further to shrink in the world trade volume in this period. However, countries' trade restrictions during this period may deepen the supply and demand shock experienced in the world economy and cause the current crisis to worsen. Companies are expected to restructure their supply chain management towards similar crises with Covid-19. Apart from cost, the importance of speed and technology factors has become clearer in supply chains, which is one of the most important factors that ensure international trade's efficient conduct. It is also possible to use smart robots more widespread in production systems to reduce production costs with multinational companies moving their factories to their own countries. As of this period, many countries have realized the importance of conserving basic resources, supporting domestic producers, protecting especially critical sectors, and diversifying their supply chains. Therefore, it is expected that the understanding of protectionism in international trade will continue for a while. However, the increasing protectionism in the world

and the global trade volume's shrinkage cannot be a sustainable policy. The commercial agreements that countries have made with each other in the face of these restrictions will play an essential role in the free conduct of international trade and the movement of goods, services, and capital in the world.

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## CHAPTER II

### CULTURAL ROUTE STUDY WITHIN THE SCOPE OF ECO TOURISM DEVELOPMENT: AN EXAMPLE OF CENTRAL DISTRICTS OF ADIYAMAN

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#### 1. Introduction

According to a rumor, Hısnîmansur, the old name of Adiyaman, comes from the name of the Abbasid Caliph Ebu Cafer-el Mansur (Halaçoğlu, 1988, 377; Kopar, 2015, 13). In the end, the name Hısnîmansur was changed in 1928 and the name Adiyaman was used instead of it (Kopar, 2015). Adiyaman has preserved its place in every stage of history since the Upper Paleolithic/Epipalaeolithic period. Today Adiyaman name is known outside the borders of Turkey. The biggest reason for this is that Adiyaman is home to the Nemrut Mountain Tumulus, which is on the UNESCO World Heritage List (Güçhan, 2018, s:23). Table 1 summarizes the historical periods in Adiyaman.

Table 1. Historical Periods of Adiyaman

Period	Date of Period
Paleolithic	40.000 BC. - BC 7.000
Neolithic	7,000 BC. - BC.5.000
Chalcolithic	5,000 BC. - BC. 3.000
Hittites	3000 BC. - BC. 1.200
Assyrians	1200 BC. - BC. 750
Phrygians	750 BC. - BC. 600
Persians	600 BC. - BC. 334
Macedonians	334 BC. - BC. 69
Kingdom of Commagene	69 BC. – AD. 72
Roman Empire	72 AD. - AD. 395

Eastern Roman Empire	395 AD. - AD.670
Umayyads	670 AD. - AD.758
Abbasids	758 - 926
Hamdanis	926 - 958
Byzantines	958 - 1114
Eyyubes	1114 - 1204
Anatolian Seljuk State	1204 - 1298
Mamluks	1298 - 1516
Ottoman Empire	1516 - 1923

Source: Adiyaman Provincial Directorate of Culture and Tourism

Tourism potentials of Adiyaman, has been identified according to the criteria situated in the Tourism Strategy in Turkey 2023 (TST 2023) prepared by the Ministry of Culture and Tourism. According to these criteria, Adiyaman is located both in the GAP Culture and Eco-tourism Development Zone and in the Eastern Mediterranean and Southeastern Faith and Gourmet Tourism Corridor (TST 2023, p.32). It is suggested that the most reasonable action plans in Adiyaman tourism plan, which is located between the said development corridors and regions, should be based on eco-tourism, trekking and bird watching. Within the scope of the same program, in order to protect, develop and use Anatolian village life culture, unique villages will be addressed within the scope of the "Culture Villages" Project and financial and technical support will be provided for the promotion of guesthouses in the region.

With the help of these data, this study aims to determine the cultural routes of Adiyaman within the scope of eco-tourism development. Also, according to Aykaç & Öztepe (2017), the number of tourists visiting Nemrut is very low compared to similar World Heritage Sites. In order to eliminate the negative consequences of their determination, it is expected that the results of this study will contribute positively to the development of tourism products.

## **2. Conceptual Framework**

### **2.1. Eco-Tourism**

Blamey (2001) points out Hetzer (1965) as the founder of four main principles and laws of ecotourism, and summarizes these principles include minimizing environmental impacts, respecting host cultures, maximizing benefits to local people and maximizing tourist satisfaction. Hetzer (1965), in his study, focused on the complex relationship between tourists and the

cultural environment and the natural environment, and explained that there are four types of interaction between tourists and the environment. These;

*"Lowest environmental impact",*

*"The highest respect for the welcoming culture, the lowest effect",*

*"Welcoming environment provides the highest economic benefit",*

*"The highest level of benefit for the tourist in recreational terms".*

As can be understood from these principles, eco-tourism focuses on environmental protection, poverty reduction and economic development (Anup, 2017). In line with this definition and principles, eco-tourism is also within the characteristics of rural tourism. For example, Bramwell and Lane (1993) argued that rural tourism provides visitors with a tourism experience by protecting the natural environment, taking into account sustainable development and local economic benefits.

It is possible to mention two different views on the etymological origins of eco-tourism in the literature (Fennell, 2020): While Higgins (1996) shows the pre-1970s as the beginning of the conceptual use of "eco-tourism", Orams (1995) and Hvenegaard (1994) pointed out the last years of the 1980s. According to Fennel (2020), it can be said that the first conceptual use of eco-tourism dates back to the work of Hetzer (1965) (Fennell, 2020). According to Weaver and Lawton (2007), this niche market product, which started to take place in the academic literature towards the last years of the 1980s, took its place as a special study subject in both industry and academic studies in the next twenty years, and this was a situation that no one could predict at the beginning.

Eco-tourism is one of the important tourism types in the sustainable tourism industry that focuses on preserving biodiversity, protecting the environment, reducing poverty and economic development (Anup, 2017). Eco-tourism aims to benefit local communities, promote environmental education and enhance appreciation of nature understanding by making the protection of ecological environments and local cultures a priority (Linsheng & Limin, 2017). Eco tourism is one of the trends of our time, embodying the common desire of the international community to advance the sustainable development of human society (Zhong & Chen, 2013; Linsheng & Limin, 2017).

Since eco-tourism aims at the sustainable and low-impact consumption of local resources, it prioritizes ecological resource integrity, protection of the environment, development of the local community and economic development (Anup, 2017). For example, the "organic" or "biological" - agriculture model proposed by ecologists within the framework of sustainable agricultural development has found its application in eco-tourism (Ahmadova & Akova, 2017). There are

different forms of eco-tourism developed around the world as community-based eco-tourism, ecosystem eco-tourism, cultural eco-tourism, nature-based ecosystem, protected area eco-tourism and rural eco-tourism (Anup, 2017). Fennell (2020) emphasized that eco-tourism should continue to exist as a separate type of tourism, instead of distinctions such as adventure, cultural, and eco-tourism. According to Weaver (2001), there are many situations in which it is almost impossible to make a meaningful distinction between the three components; For example, distinctions are unlikely to be made by tourists as they engage in cultural, nature-based and adventurous activities at the same time. Secondly, such a synthesized tourism product can be popular with consumers seeking a diversified and more holistic tourism experience as opposed to someone with a unidirectional perception and extreme specialization. Tourists benefit from the cultural, social and economic values of the places they visit (Merdan & Okuroğlu, 2016, Işık, 2017). While nature walks express differentiation in activity types, they also contribute to the promotion of the relevant area (Işık, 2017). When the definitions of eco-tourism are evaluated, it can be stated that the main field of activity of eco-tourism is nature represented by culture and tradition (Uçar et al., 2017:41). Figure 1. explains that walking activity takes place in the common area of eco, adventure and culture tourism.

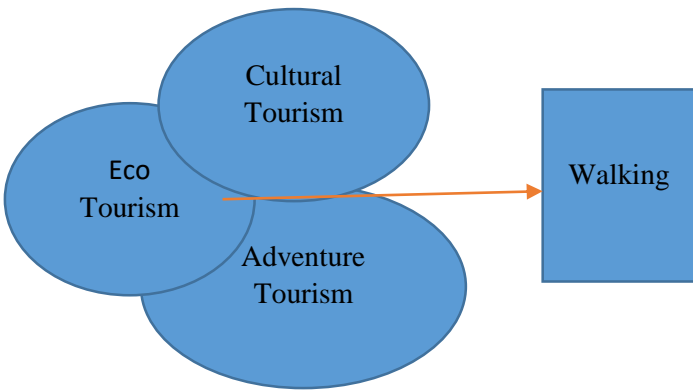


Figure 1. Walk and Eco-Tourism (Weaver, 2001)

## 2.2 Cultural Routes

Unlike mass tourism, cultural routes can be defined as attraction centers created with a focus on local culture, local life and local development in accordance with the principles and principles of eco-tourism. However, cultural routes are created not only to respond to the touristic demands of travelers, but also to promote and sustain natural, cultural, historical, national or international values. Cultural routes defined by international organizations include routes developed for touristic

purposes, unlike transportation routes used for commercial and social purposes, and contribute to the preservation and promotion of cultural and natural heritage (Çekül, 2015, p: 12).

The program put forward by the Council of Europe under the name of "European Cultural Routes Program" in 1984 was the reason for the emergence of the first studies on the Cultural Route concept (Karataş 2015, 14, Saka, 2017). "Santiago de Compostela Pilgrimage Road" is the first cultural route to be included in UNESCO's World Heritage List since 1985 (Çekül 2015, Saka, 2017). The registration of this route has enabled the representation of the history of Europe, the increase of cultural pluralism in Europe, and the development of European cultural identity (Grabow, 2010; Gültekin & Çetin, 2019). The Association of Turkey Cultural Routes disclose the cultural routes in Turkey as in Table 2 below.

Table 2. Cultural Routes in Turkey

Route Name	Region of Location	Route Name	Region of Location
Likya way	Aegean-Mediterranean	Mount Ararat	Eastern Anatolia
St Paul Trail	Mediterranean	Küre Mountains	Black Sea (West)
Evliya Çelebi Road	Marmara-Central Anatolia	Independence Road	Black Sea, Central Anatolia
Carian Way	Aegean	Idyma Road	Aegean
Kackars	Black Sea (East)	Sarıkamış Routes	Eastern Anatolia
Troy Culture Route	Aegean-Marmara	Yenice Forest Roads	Black Sea (West)
Phrygian Way	Marmara-Central Anatolia-Mediterranean	Fethiye Hiking Parks	Aegean-Mediterranean
Sultans Road	Marmara and Europe	Between Two Seas	Marmara-Black Sea
Prophet Abraham Path	South D. Anatolia and the Middle East.	Ephesus Mimas Road	Aegean
Via Egnatia	Marmara Balkans	The Way Tolerance	Marmara
Hittite Road	Black Sea (Middle)	Gastronomy Route	Black Sea (Middle)
Sufi Way	Marmara-Central Anatolia		

Source: Association of Turkey Cultural Routes



Turkey's Cultural Routes located in Table 1, have been created according to a classification made by the Association. Accordingly, the routes are classified as international, coastal, nature, historical, cycling, horse riding, spring, autumn and summer routes. Lycia, Caria, St. Paul, Troy, Hittite, Phrygian, Gastronomy, Istiklal, Sarıkamış and Yenice Forest Roads constitute historical routes. The nature routes are Kaçkars, Küre, Mount Ararat, St. Paul, Sarıkamış Trails, Yenice Forest Roads. When we examine the coastal routes class, it is seen that there are Carian and Lycian roads in this class. Hz. İbrahim, Sultans and Via Egnatia are included in the class of international routes.

Cultural routes, together with cultural heritage awareness, present intangible and tangible cultural heritage to the experience of tourists, and encourage the participation of the society in cultural activities (Boz, 2018, p; 388). Meyer (2004) and Lourens (2007) explain the contributions of tourism routes to tourism and local people with the following items (Kervankıran & Çuhadar, 2014);

*"Tourism routes bring together a wide variety of activities and attractions on a route / in a region",*

*"It contributes to the marketing of small towns and villages that do not represent a significant attraction alone and cannot carry out marketing activities due to insufficient resources ",*

*"Encourages the entrepreneurs in the region to develop various products and services",*

*"It extends the duration of stay in the region and increases tourist spending. With the development of routes, touristic activities are also increasing, tourists taking a break in restaurants and retail stores selling various products are shopping",*

*"Ensures the sustainability of the tourism product",*

*"It helps the tourism region gain an identity and create an image",*

*"Increases the attractiveness of destinations",*

*"It ensures that little-known attractions are recognized by tourists and used as tourism products",*

*"It contributes to the development of the people of the region and to increase the quality of life in rural areas in terms of economic, social and cultural aspects",*

*"It creates direct and indirect employment increase in the region".*

In a study conducted by the European Cultural Routes Institute (EICR), the contributions of cultural routes for a destination are explained as follows (Richards, 2011);

"To help the development of cultural contributions of European capitals",

"To assist the visitor development of the regional museums and scientific museums"

"To help preserve historical and social memory areas",

"Helping the conservation and promotion of natural and historical parks",

There should be some equipment and spaces on the walking routes, information signs showing the starting and ending points, clearly showing the distance and "you are here" information, giving information about the direction to go, conveying the slope of the route and clearly expressing the nodal points and resting places on the route. (Sağlık et al., 2020). In creating the route, the contribution of the route to the cultural, economic and sociological elements of the region should be designed (Saka, 2017).

### **3. Methods**

Based on the assumption that will contribute to development of Adıyaman's the eco-tourism, it is aimed to determine suitable cultural routes in terms of culture and nature walk in this study. For this purpose, document analysis method was used.

The documents analyzed are the Immovable Cultural Property Inventory of Adıyaman (Altınöz & Güçhan, 2018) and the Commagene Nemrut Management Plan (Güçhan, 2017). The cultural assets included in the documents have been evaluated with the conformity criteria in terms of their relation with the natural environment, the urban and rural settlements to which they are related, the places that show historical / archaeological integrity, the relationship with the historical / archaeological sites and structures, and the relationship with the social environment. The research was limited to the central districts of Adıyaman with rural characteristics.

### **4. Findings**

As a result of the content analysis of Adıyaman's Immovable Cultural Property Inventory (Altınöz & Güçhan, 2018) document explained in the method section, the criteria of the places in the document are compared in terms of compliance with eco-tourism principles and are explained in Table 3.

Table 3. Potential Cultural Route Locations of Adıyaman Central District

Place	Arılı Village	Pirin Bridge	Haydaran Village and Rock Monument	Yazlıca Village
Strong visual relationship with a qualified natural environment (having views and vantage points)	+	-	+	+
Local lifestyle example	+	+	+	+
Rural settlement	+	Pirin Village	Taşgedik Village	Bağpınar and Bozhöyük Village
Does it have places that show historical / archaeological integrity?	+	Perre Rock Tombs, Roman Fountain and Pool	Palanlı Valley, Taşgedik Village	+
Does it have a relationship with archaeological sites and structures?	+	+	+	+

When Table 3 is examined, it is seen that all venues in the table have basic criteria in accordance with eco-tourism principles and rules. Pirin Bridge, in the second column of Table 3, is reported as it is in the cultural inventory, it does not have the criterion in the point of strong relationship with the natural environment as determined there.

Pirin Bridge is located on the eastern outskirts of Karadağ, 5 km northeast of Adıyaman city center. Together with the Pirin Bridge, Perre Rock Tombs, Pirin Roman Fountain and Pool, it forms the remains of Perre Ancient City.

However, there is a proximity relationship between Perre Rock Tombs, and Pirin Bridge. Perre Rock Tombs provide a strong relationship

criterion with the natural environment in terms of having a view and a viewpoint, and it has been determined that the local government has made physical arrangements for viewing the landscape.

In Commagene Nemrut Management Plan (Güçhan, 2017, p; 260), it is emphasized that Haydaran Rock Monument and Tombs have the potential to increase the average overnight stays in insufficient condition in the region. In addition, in this plan, it is emphasized that Haydaran Rock Relief, together with Zey (Inder), Pirin and Palanlı Caves, joined the Nemrut Action Zone.

## **5. Results**

In this study, it is aimed to determine the cultural routes of Adıyaman within the scope of eco-tourism development. For this purpose, Commagene Nemrut Management Plan compiled by Güçhan (2017), and the Immoveable Cultural Heritage Inventory of Adıyaman compiled by Altınöz & Güçhan (2018) were included in the content analysis. As a result of the descriptive content analysis of the criteria based on strategic planning and location determination in these documents, it has been determined that Arılı Village, Pirin Bridge, Haydaran Village and Kaya Monument, Yazlıca Village are in accordance with eco-tourism principles and principles and have the potential to be evaluated within the cultural routes.

The method followed in this study differs from some similar studies. The reason for this is that the criteria for developing cultural routes within the scope of eco-tourism are included in the studies prepared by Adıyaman Provincial Directorate of Culture and Tourism in great detail.

For example, in the study of Nemitlu (2018), Adobe Photoshop CS6 program was used in the visual determination of the area, information about archaeological values, historical buildings, traditional life process, agricultural opportunities and land use was prepared and filled with information from local people and public institutions. Selim (2019) used a GIS-based method to introduce the natural-historical and cultural values of the region, and analyzes were made with this method.

This study is expected to provide views and content to both public and private sides of the industry for the development of sustainable tourism types in Adıyaman. Future research can be carried out to cover different districts of Adıyaman.

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## CHAPTER III

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### MEASURING NURSING CARE QUALITY USING ENTROPY WEIGHT METHOD: A NEW PERSPECTIVE FOR HEALTHCARE MANAGERS

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#### 1. Introduction

As healthcare providers offer similar services, they face challenging competition (Chang et al., 2006: 1042; De Pietro, 2006: 57; Nunes et al., 2011: 355; Peng & Bourne, 2009: 380). Increased competition forces competitors to adopt various positive and distinctive courses of action such as closely monitoring developments in the sector, providing higher quality at lower prices to customers, delivering speedy and accurate patient services, and offering a broader range of services for customers (Beckert et al., 2012: 400; Bradley et al., 2012: 199; Chang et al., 2006: 1042; Sirgy et al., 2011: 462). Hospitals that are particularly aware of and able to correctly use their strategic competences have strong competitive advantage in the market (Douglas & Ryman, 2003: 336). Having competitive advantage enables hospitals to increase their market share, have favourable reputation among customers, position themselves as first-choice by customers and have a stronger economic say in the market (Sirgy et al., 2011: 462).

Nursing care constitutes an essential component of overall healthcare service as numerous studies emphasise the important role of nursing in the services provided by hospitals to patients (Merkouris et al., 2004: 355; Milutinović et al., 2012: 598; Otani et al., 2014: 370). As such, it should be obvious that nursing care quality is an essential component of healthcare service quality. There is a clear relationship between nursing care quality and patient satisfaction (Elder et al., 2004: 263; Johansson, 2002: 338; Mrayyan, 2006: 225). People consider important and demand



nursing care especially when they need healthcare (Johansson, 2002: 338; Jun & Faulkner, 2018: e1674). Nursing care provided at healthcare institutions also provides an opportunity for early diagnosis concerning any deterioration in the health of patients during hospital stay (Lucero et al., 2010: 2). In other words, nurses can be characterised as guards who control the course of healthcare provided (Jones et al., 2015: 1122). In addition, nurses are at the centre of the communication network and function as a bridge between patients, patients' relatives and healthcare team (Buchanan et al., 2015: 222). Nurses are expected to meet all physical, mental, social and psychological needs of patients effectively to provide quality care to patients (Van Leeuwen & Cusveller, 2004: 234).

Studies concerning nursing care quality generally fall into two categories. The first category involves the analyses of the factors affecting service quality from service providers', i.e. nurses', perspective (Aiken et al., 2002: 8; Bragadóttir et al., 2017: 1526; Burhans & Alligood, 2010: 1691). Such studies focus on the factors influencing nursing services rather than the components of these services. The second category includes studies focusing on service recipients', i.e. patients', views on various aspects of nursing service quality (Alasad & AbuRuz, 2015: 564; González-Valentín et al., 2005: 64; Suhonen et al., 2005: 285). In general, the latter studies deal with the question of how nursing care quality can account for patient satisfaction.

Studies investigating patient satisfaction with nursing services have different contexts and are often conducted with a view to targeting certain market segments. For instance, some studies focus on nursing services in certain clinics of hospitals (Charalambous et al., 2016: 176; Leinonen et al., 2003: 30; Radwin et al., 2003: 284). Some others divide the market based on certain demographic characteristics and analyse the satisfaction of patients of certain age groups with nursing services (Comparcini et al., 2018: 289; Pelander et al., 2009: 445; Stewart et al., 2005: 414).

There are also studies aiming at developing instruments for measuring nursing care quality (Dozier et al., 2001: 508; Kalisch & Williams, 2009: 212; Laschinger et al., 2005: 223; Liu & Wang, 2007: 267; Lynn et al., 2007: 161; McColl et al., 1996: 35; Parasuraman et al., 1988: 12). Some of such measuring instruments do not involve dimensions (Dozier et al., 2001: 510; Laschinger et al., 2005: 223; Milutinović et al., 2012: 598), while others contain several dimensions of nursing services. Chaaya et al. (2003: 439), Larrabee & Bolden (2001: 36), Liu & Wang (2007: 267), Senarath & Gunawardena (2011: 76) and Wolf et al. (1994: 110) emphasise the dimensions of professional competence, knowledge and skills of nursing services. Nurse characteristics is reported by many studies as a significant aspect (Leinonen et al., 2001: 302; Lynn et al., 2007: 164; Pelander et al., 2009: 446). Some studies emphasise the

dimensions of nursing activities and nursing environment (Leinonen et al., 2001: 296; Liu & Wang, 2007: 269; Lynn et al., 2007: 164; Pelander et al., 2009: 443; Senarath & Gunawardena, 2011: 76). Other significant aspects of nursing services are reported to be personalised nursing services and communicative skills (Liu & Wang, 2007: 267; Lynn et al., 2007: 165; Senarath & Gunawardena, 2011: 76; Wolf et al., 1994: 110). There are also studies which contain the basic dimensions of the SERVQUAL (Parasuraman et al., 1988: 12) as part of nursing care quality. Responsiveness (Lynn et al., 2007: 164; Radwin et al., 2003: 287) and promptness (Larrabee & Bolden, 2001: 36; Liu & Wang, 2007: 268) are examples in this context.

Different expectations of people may affect their satisfaction, and different levels of satisfaction may arise for the healthcare services they demand (Wu & Lu 2018: 79). For this reason, it is not always possible to meet all patient expectations of quality healthcare service and satisfy patients on every aspect (Ferreira et al., 2018: 60). Therefore, hospitals need to identify the most important demands, by studying patient expectations and/or rank-ordering the importance of expectations. The aim of this study is to identify the most important aspects of nursing care quality based on patient expectations of and satisfaction with nursing care; determine the relative weights of each aspect in the overall nursing service quality; and measure in numerical terms the gap between patient expectations of nursing care and their evaluations of the actual nursing care received. Using the entropy weight method (Delgado & Romero, 2016: 111) to determine the weights of aspects of nursing care quality with a holistic perspective, this study further reduces the uncertainty of information on relative importance of aspects, and improves on earlier studies that have employed conventional methods, e.g. scoring based on a 5-point scale. Given the importance of nursing care quality, the knowledge of aspects and their relative weights as well as the magnitude and nature of the gap between patient expectations and satisfaction with actual nursing service should have some guiding value for hospital administrators in terms of increasing nursing care quality.

In the present paper Section 2 elaborates the methodology as to research design, measuring instrument, administration and respondents and analysis method. Section 3 consists of results data collection and analysis followed. Section 4 gives discussion of results. Section 5 presents the limitations and finally Section 6 gives conclusion.

## **2. Methods**

### **2.1. Research Design**

This study represents a cross-sectional analysis. Participants were over 18 years old and they received nursing care at least once either at state

hospitals. Those persons who did not recipient of nursing care during that day were not included in the study. In order to reduce the internal bias of the participants, they were asked to evaluate the nurses they received service for the first time. In addition, none of the respondents worked as a nurse. There are 54 public hospitals in the city (Ankara Medical Chamber, 2019: 4). Questionnaires applied to the participants in the hospitals garden. This scale developed by the authors and inquire patient expectations of and satisfaction with nursing care quality. The data were collected in December 2018 and January 2019. The aim and procedures of the study were explained to respondents who agreed to participate in the research. Study participation was optional for respondents.

## **2.2. Measuring Instrument**

A comprehensive literature review was conducted to examine various aspects of patient expectations of and satisfaction with nursing care quality with a view to developing a measuring instrument on sound theoretical grounds (Charalambous et al., 2016; Eriksen, 1987; Kemppainen, 2000; Lucero et al., 2009; Lucero et al., 2010; Lynn & McMillen, 1999; Mrayyan, 2006; Norman et al., 1992).

Following the review, a focus group study was conducted. Focus group discussions are frequently employed in different disciplines, and involve group discussions to reveal the views, experience, satisfaction, attitudes and beliefs of the group members on a specific topic (Massey, 2011: 23). A focus group was formed consisting of eight patients who received nursing service at least once in the that day. The group had an average age of 34, equally distributed by sex, and was all university graduates. They were asked to answer the items about their expectations from nursing services and indicate which services were important for them. Two moderators facilitated the focus group discussions: one a mid-level hospital manager and the other an academician who studied healthcare management. Group discussions continued until consensus was reached on twenty-seven aspects of nursing care.

The survey questionnaire was developed by transforming the outputs of the focus group discussions into questionnaire items. The first part of the questionnaire included five items on demographics namely age, gender, marital status, educational status, monthly income of respondents. The second and third parts included 27 items each, with identical main clauses. The second part inquired patient expectations, labelled "importance-to-patient" with the prelude "It is important that ..." whereas the third part investigated actual patient satisfaction of nursing care based on personal experience, with the prelude "I am pleased that ..." (for details see Table 2). The response choices included a typical 5-point Likert scale with 1= "strongly disagree" to 5 "strongly agree".

The draft questionnaire was administered to 20 volunteer patients in a pilot study to test intelligibility of them, 12 were female and 8 male and their ages ranged between 18 and 60 years. Based on the findings of the pilot study, the questionnaire was revised and finalised for administration.

### 2.3. Administration and Respondents

The survey questionnaire was distributed personally to 2,000 people at state hospitals in a major city with more than 5 million in population. The response rate was 36.75% as 735 responses were returned on a voluntary basis. DeVaus (2000) stated that within a 95% confidence level, an assumption of more than 10 million customers per year and a 5% error margin, the suitable sample size was 370. The aforementioned “customers” constitute the “patients” in our study. Therefore, the number of responses was sufficient in the study. Respondent demographics were as follows by largest subgroups: age 18-28 (43.5%), female (65.9%), married (51.3%), university graduates (57.3%) and monthly income 316,46\$ (2,000TL/6.32) or less (44.4%) (See Table 1). The Cronbach's alpha coefficient of the questionnaire was found to be 0.90. It is reported that the Cronbach's alpha coefficient higher than 0.70 indicates that the instrument is reliable (DeVellis, 1991: 85).

Table 1: Respondent Demographics

	<b>Category</b>	<b>N</b>	<b>%</b>
Age (Years)	18-28	320	43.5
	29-39	159	21.6
	40-50	150	20.4
	51-60	57	7.80
	61 and above	49	6.7
	<b>Total</b>	<b>735</b>	<b>100</b>
Gender	Male	251	34.1
	Female	484	65.9
	<b>Total</b>	<b>735</b>	<b>100</b>
Marital Status	Single	377	51.3
	Married	358	48.7
	<b>Total</b>	<b>735</b>	<b>100</b>
Educational Level	Less than high school	125	17.0
	High school	130	17.7
	University	421	57.3
	Postgraduate	59	8.0
	<b>Total</b>	<b>735</b>	<b>100</b>
Monthly Income	316,46\$ minimum wage or less	326	44.4
	316,46\$ to 632,91\$ minimum wage	239	32.5
	632,91\$ to 949,37\$ minimum wage	89	12.1
	Higher than 949,37\$ minimum wage	81	11.0
	<b>Total</b>	<b>735</b>	<b>100</b>

## 2.4. Analysis Method

An exploratory factor analysis was conducted, using SPSS Statistics for Windows version 23.0, to group the aspects of patient expectations of and satisfaction with nursing care quality. Factor analysis is a relatively strong statistical technique that classifies relevant items in a questionnaire, creates relatively independent subgroups and supports the establishment of predictive, content and construct validity (Nunnally & Bernstein, 1994: 263; Wilska, 2003: 451).

Following the exploratory factor analysis, a confirmatory factor analysis was performed using AMOS Statistics for Windows version 23.0. The confirmatory factor analysis is a technique used to validate the model obtained based on theoretical foundations, develop or reinforce the evidence by analysing previous research (Harrington, 2009: 7; Yuan et al., 2011: 252).

At the confirmatory factor analysis to evaluate nursing care quality, the entropy weight method was used, and weights were determined by making numerical calculations for each item. This weight method is used to measure the weights of indices in multi-criterion decision-making problems, and highly advantageous for researchers in that it offers possibility to calculate the weights of indices objectively (Delgado & Romero, 2016: 111). In addition, the entropy weight method reveals the hidden information in the data in the most efficient way and enables researchers to determine the differences between indices (He et al., 2016: 399; Yang et al., 2018: 271). Therefore, it can be argued that the results obtained through the entropy weight method better reflect the real situation (Toumi et al., 2017: 879). The Spearman correlation analysis was performed to determine the relationship between the expectations and satisfaction of respondents after the determination of the item weights by entropy weight method.

The algorithm for obtaining entropy weights is as follows (Shemshadi et al., 2011: 12161):

*Step 1:* Compose the normalized matrix.

The normalized matrix is demonstrated by  $[X]$  and it is shown as follows:

$$[X] = \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{bmatrix}$$

Where  $x_{ij}$  ( $i = 1, 2, \dots, m$   $j = 1, 2, \dots, n$ ) is  $i$ -th respondent's value to  $j$ -th item.

*Step 2:* Find the normalised matrix.

The element of the normalized matrix is  $p_{ij}$  and it is computed as follows:

$$p_{ij} = \frac{x_{ij}}{\sum_{i=1}^m x_{ij}} \quad i = 1, 2, \dots, m \quad j = 1, 2, \dots, n$$

Where  $p_{ij}$  is normalised value for  $i$ -th respondent's value to  $j$ -th item.

*Step 3:* Calculate the entropy information for each item.

Entropy information of  $j$ -th item is demonstrated by  $e_j$  and it is computed as follows:

$$e_j = -\frac{\sum_{i=1}^m p_{ij} \ln p_{ij}}{\ln(m)} \quad i = 1, 2, \dots, m \quad j = 1, 2, \dots, n$$

*Step 4:* Find weight for each item.

Entropy weight of the  $j$ -th item  $w_j$  is computed as follows:

$$w_j = \frac{1 - e_j}{\sum_{j=1}^n (1 - e_j)} \quad j = 1, 2, \dots, n$$

### 3. Results

Average scores on the 5-point scale and entropy weight scores were computed on the responses to "Importance-to-Patient" items or "Importance Scale", and to "Patient Satisfaction" items or "Satisfaction Scale", which included identical main clauses but different preludes (see Table 2).

Item weights were computed using the entropy weight method. When the entropy value of an index increases, the weight of the entropy becomes smaller. Such a case suggests that the index provides less information needed to make decisions and lead to uncertainty (Wang & Lee, 2009: 8982; Yang et al., 2019: 1181). On the other hand, when the entropy weight of an index is high, it provides all necessary information to make decisions indicating that it has a significant role in a study.

Table 2: Questionnaire Items, Scores and Inter-Item Ranking

Statement in the Item	Item Label	Importance to Patient		Patient Satisfaction	
		Qi.: "It is important that ..." Avg. score (5-point scale)	Entropy-weight score	Qs.: "I am pleased that ..." Avg. score (5-point scale)	Entropy-weight score
01: ... nurses are keen on patient room hygiene.	Patient room hygiene	4.63 [15]	0.037040 [20]	3.74 [12-13]	0.037061 [12]
02: ... nurses are well-dressed and clean-looking.	Overall personal appearance	4.68 [12-13]	0.037069 [13]	4.20 [1]	0.037206 [1]
03: ... nurses ensure undisturbed patient rest	Ensuring undisturbed rest	4.33 [25]	0.036998 [24]	3.68 [16-17]	0.037044 [13]
04: ... number of attending nurses is adequate.	Number of nurses	4.58 [16-17]	0.037058 [17]	3.63 [19-20]	0.036982 [20]
05: ... nurses perform treatment-related actions as they promise.	Delivery as promised	4.73 [8]	0.037093 [10]	3.85 [8]	0.037105 [6]
06: ... nurses are trying to solve patient problems.	Solving patient problems	4.58 [16-17]	0.037067 [14]	3.74 [12-13]	0.037068 [11]
07: ... interventions of nurses are reliable.	Reliable intervention	4.67 [14]	0.037066 [15]	3.99 [4-5]	0.037143 [3]
08: ... nurses adequately inform patients on upcoming treatment.	Informing patients	4.47 [22]	0.037023 [22]	3.61 [22-23]	0.036968 [22]

09: ...after informing patients on upcoming treatment, nurses request permission to proceed.	Requesting permission	4.56 [18]	0.037050 [18]	3.68 [16-17]	0.036983 [19]
10: ... nurses keep reliable patient records.	Reliable patient records	4.80 [4]	0.037101 [5]	3.99 [4-5]	0.037135 [5]
11: ... nurses serve responsively and skillfully.	Responsive, skilful service	4.72 [9-10]	0.037098 [7-8]	3.82 [10]	0.037093 [7]
12: ... nurses pay full attention to individual patient.	Full attention	4.24 [26]	0.036974 [25]	3.49 [27]	0.036938 [26]
13: ... nurses speedily analyse patient problems.	Speedy analysis of problems	4.52 [20]	0.037074 [12]	3.62 [21]	0.037015 [15]
14: ... nurses are ready to help when needed.	Ready to help	4.68 [12-13]	0.037098 [7-8]	3.70 [15]	0.037006 [16]
15: ... nurses are willing to help patients.	Willing to help	4.71 [11]	0.037083 [11]	3.55 [24]	0.036944 [25]
16: ... nurses are accessible.	Nurse accessibility	4.75 [7]	0.037099 [6]	3.64 [18]	0.036992 [17]
17: ... nurses consider patient/family suggestions and complaints.	Heeding patient feedback	4.54 [19]	0.037059 [16]	3.51 [26]	0.036949 [24]
18: ... nurses have adequate professional knowledge.	Professional knowledge	4.83 [1]	0.037110 [3]	4.00 [3]	0.037139 [4]
19: ... nurses have necessary abilities and skills.	Abilities and skills	4.82 [2]	0.037107 [4]	4.03 [2]	0.037158 [2]



20: ... nurses are diligent on treatment.	Diligence on treatment	4.79 [5]	0.037115 [1]	3.84 [9]	0.037090 [8]
21: ... nurses make adequate effort to ensure patient privacy.	Ensuring patient privacy	4.81 [3]	0.037114 [2]	3.98 [6]	0.037089 [9-10]
22: ... nurses care for patient comfort and feelings.	Empathy with patient	4.46 [23]	0.037035 [21]	3.61 [22-23]	0.036991 [18]
23: ... nurses are responsive to patient's special needs and requests.	Responsive to patient needs	4.04 [27]	0.036889 [26]	3.52 [25]	0.036960 [23]
24: ... nurses are respectful to patients.	Respectful to patients	4.76 [6]	0.037096 [9]	3.87 [7]	0.037089 [9-10]
25: ... nurses are women.	Preferring female nurses	4.72 [9-10]	0.036420 [27]	3.78 [11]	0.036844 [27]
26: ... nurses help alleviate patient fears.	Alleviating patient fears	4.38 [24]	0.037021 [23]	3.63 [19-20]	0.036979 [21]
27: ... nurses provide comfortable environment.	Providing comfortable environment	4.48 [21]	0.037045 [19]	3.71 [14]	0.037031 [14]

\* Figures in square brackets immediately after scores denote the item's rank by descending order in that

Table 2 provides a list of all questionnaire items and shortened labels that represent aspects of nursing care, item average scores based on 5-point scale, item entropy weights, and inter-item rankings. Top three items with highest entropy weights on the Importance Scale are Qi20: Diligence on treatment, Qi21: Ensuring patient privacy, and Qi18: Professional knowledge; whereas the bottom three with lowest entropy weights are Qi12: Full attention, Qi23: Responsive to patient needs, and Qi25: Preferring female nurses. On the Satisfaction Scale, top three items are Qs02: Overall personal appearance, Qs19: Abilities and skills, and Qs07: Reliable intervention; and bottom three are Qs15: Willing to help, Qs12: Full attention, and Qs25: Preferring female nurses.

The Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO) values were used to see whether or not the values were eligible for factor analysis. The former value was found to be significant ( $p=0.000$ ), whereas the latter value was found to be 0.97, indicating that the sample was suitable for factor analysis (Field, 2009). Then, an exploratory factor analysis was performed based on principal components analysis using varimax rotation on 27 items.

The exploratory factor analysis revealed two factors accounting for 59.7% of the variance. The labels were assigned to these factors based on the qualitative assessment of the item contents. There were fourteen items in Factor 1, all of which individually and collectively were associated with reliable practice of the nursing profession; hence Factor 1 was labelled "reliability" of the nursing care. There were thirteen items in Factor 2, all of which individually and collectively related to nurse-patient personal relations; hence Factor 2 was labelled "individuality" of the nursing care. The Cronbach's alpha was 0.89 for each of the two factors (see Table 3).

As regards the confirmatory factor analysis, absolute fit measures (AFM), incremental fit measures (IFM), and parsimonious fit measures (PFM) were utilised to examine the model fit (Yoon & Uysal, 2005: 52). A good model fit requires that the Root Mean Square Error of Approximation (RMSEA) be lower than 0.10; and Confirmatory Fit Index (CFI), Normed Fit Index (NFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), Goodness of Fit Index (GFI) be higher than 0.90 (Hu & Bentler, 1998: 449; Steiger, 1990: 177).

Table 3: Results of Exploratory and Confirmatory Factor Analyses

<b>Factors</b>	<b>Patient Satisfaction Items</b>	<b>Factor Loadings</b>	<b>Cronbach's Alpha</b>	<b>AVE</b>	<b>CR</b>
Reliability	Qs05: Delivery as promised	0.773	0.89	0.526	0.939
	Qs07: Reliable intervention	0.772			
	Qs06: Solving patient problems	0.681			
	Qs10: Reliable patient records	0.673			
	Qs18: Professional knowledge	0.663			
	Qs03: Ensuring undisturbed rest	0.662			
	Qs19: Abilities and skills	0.652			
	Qs08: Informing patients	0.652			
	Qs11: Responsive, skilful service	0.644			
	Qs04: Number of nurses	0.643			
	Qs01: Patient room hygiene	0.633			
	Qs09: Requesting permission	0.629			
	Qs02: Overall personal appearance	0.627			
	Qs20: Diligence on treatment	0.592			

Individuality	Qs22: Empathy with patient	0.721	0.89	0.609	0.953
	Qs25: Preferring female nurses	0.703			
	Qs24: Respectful to patients	0.690			
	Qs26: Alleviating patient fears	0.687			
	Qs27: Providing comfortable environment	0.680			
	Qs23: Responsive to patient needs	0.678			
	Qs17: Heeding patient feedback	0.631			
	Qs15: Willing to help	0.631			
	Qs14: Ready to help	0.619			
	Qs12: Full attention	0.605			
	Qs13: Speedy analysis of problems	0.580			
	Qs16: Nurse accessibility	0.561			
	Qs21: Ensuring patient privacy	0.515			

The theoretical model ( $\chi^2/df = 2.997$ ) indicated that its goodness of fit was reasonable ( $\chi^2/df < 3$ ). AMOS 18.0 was used to analyse CFA results and all CFA factor loading over 0.5 ( $>0.5$ ). The overall fit statistics of the measurement model is suitable (Chi-Square ( $\chi^2/df$ ) = 2.997, RMSEA = 0.052, CFI = 0.962, NFI= 0.944, IFI=0.962) and these results show that two-dimension model provided an acceptable fit (Bentler, 1990; Browne & Cudeck, 1993; Hair et al., 2017). The average variance extracted (AVE) and composite reliability (CR) were used to establish the convergent validity (See Table 3). The CR above 0.70 and AVE above 0.50 were considered acceptable (Hair et al, 2017).

Finally, a Spearman correlation analysis was conducted on entropy weights to determine the relationship between the expectations and satisfaction of respondents. The results indicated that the relationship between respondents' expectation of nursing services and their satisfaction with such services is significant ( $p = 0.01$ ), positive and at the moderate level ( $r = 0.606^{**}$ ). In other words, patient expectations are moderately satisfied.

#### **4. Discussion**

The findings suggest that patient satisfaction with nursing services is moderately consistent with their expectations.

The most important expectation of patients from nurses is careful/attentive treatment which falls within the reliability dimension. It may be thought that a careful treatment may have satisfactory effects on patients' recovery. For this reason, it is reasonable that patients whose primary goal is to improve their health expect nurses to perform the most attentive treatment first. Studies by Larrabee & Bolden (2001: 34) and Radwin, et al. (2003: 283) evidenced that the treatment applied by nurses should be done carefully to meet the needs of patients effectively and contribute to the healing process. While careful treatment is so important for patients, they are not satisfied with the thoroughness of actual treatment practices. The reason for such inconsistency between patient expectations and satisfaction seems attributable to the relatively low number of nurses per patient (OECD, 2017). It is also supported by another finding of the study in that patients are not pleased with the number of nurses at the hospital. Kol et al. (2018: 55) also suggest that a smaller number of nurses at a hospital may result in less service to patients. To improve this situation, healthcare facilities should increase their nursing staff size, which may have further implications for the national education system and labour market, e.g. more nursing schools should be opened, the labour supply of nurses be increased.

Another finding is that patients have significant expectation about their privacy which falls in the individuality dimension. This finding is

consistent with previous studies (Alasad et al., 2015: 565; Laschinger et al., 2005: 224). National culture and religion can also be effective on this practice. Various measures are in place at hospitals in Turkey to ensure the privacy of patients such as regulated visit hours, limited number of family attendants and private rooms. However, patients still attach importance to activities by nurses to protect their privacy. On the other hand, respondents are not so satisfied with the activities by nurses to protect their privacy. To improve this situation, the physical environment and conditions in hospitals can be controlled to provide desired protection of privacy. In addition, other staff such as technicians can assist nurses in this regard. On the other hand, during the in-service training activities or other training activities, administrators may emphasise the significance of activities relating to protection of patient privacy.

In addition, respondents find it important for nurses to have sufficient professional knowledge and skills, which falls in the reliability dimension. Adequate knowledge and necessary skills of nurses builds patient's trust in nurses and contributes positively to healing processes (Radwin, 2000: 189). Similarly, previous findings suggest that good nursing service requires that nurses have adequate knowledge, skills and abilities (Kol et al., 2018: 53; Larrabee & Bolden, 2001: 36; Liu & Wang, 2007: 269). In the present study, patients think that the knowledge, skills and abilities of nurses are satisfactory.

Moreover, patients are satisfied with the overall personal appearance of nurses. Pelander et al. (2009: 448) covered nurses' appearance (colourful clothes) as an item to measure nursing care quality which was included in the dimension of nurse characteristics. However, it was later excluded due to criticism over its analysis of the reliability and validity. In the present study, the item about nurses' personal appearance is placed in the reliability dimension. Although this item is considered moderately important by respondents for nursing care quality, it is one of the aspects where respondents are highly satisfied. The reason for this finding may be related to the fact that there is a regulation in Turkey which prescribes nurse uniforms (Republic of Turkey Ministry of Health, 1983). Hospitals generally prefer one colour (white) uniforms for nurses which may positively affect the satisfaction of respondents. Gupta et al. (2016: 92) also argue that nurses wear uniform protective clothing against external pollutants and the fact that these clothes are usually white colour contribute to the good and clean appearance of nurses. Another related factor is that nurses are trained on the significance of cleanliness for the nursing profession (Republic of Turkey Ministry of Health, 2011). The integration of cleaning education in the healthcare education for nurses may have caused nurses to attach importance to their appearance and cleanliness, and therefore, patients may be satisfied with it here.

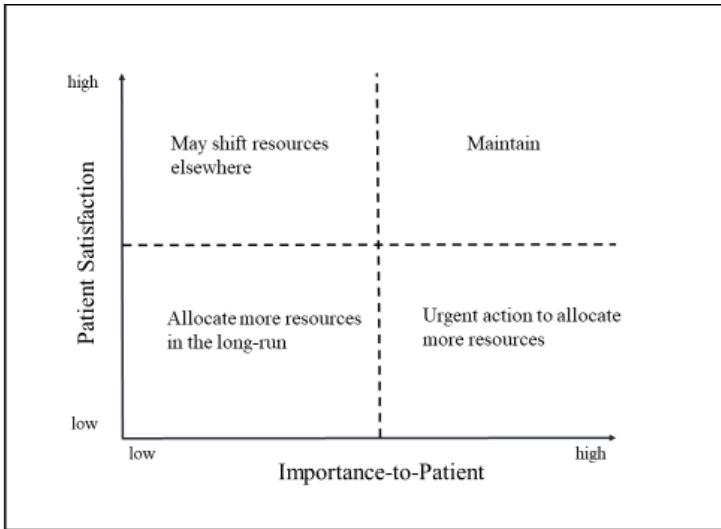
Another finding is that the reliability of nursing interventions is not much important to respondents. In other studies, trusting nurses is found to be a critical factor (Comparcini et al., 2018: 292; Lynn & McMillen, 1999: 69; Radwin, 2000: 179). On the other hand, it is found in the present study that respondents are highly satisfied with the reliability of nursing interventions. Charalambous et al. (2016: 184) argues that patient satisfaction with nurse competence is a precursor of patient's trust in nursing interventions. This finding is similar to the current one in that respondents find nurses competent and are satisfied with the reliability of their interventions.

Respondents are found to attach less importance to the gender of nurses in evaluating the nursing services. On the other hand, in many countries including Turkey and Israel which are more traditional societies, there is widespread expectation among people that nurses must be women (Aul, 2017: 36; Romem & Anson, 2005: 173; Yi & Keogh, 2016: 102). In addition, there are many studies suggesting that in Turkey, male patients want to be served by male nurses and female patients want to be served by female ones due to some factors such as shyness (Kahraman et al., 2015: 115; Orhan & Yucel, 2017: 57). This dimension can be further analysed in future studies. On the other hand, boys can be supported and encouraged to be nurses and given more opportunities.

Finally, the findings are not without management implications. It is common sense that more effort and resources should be devoted to the aspects of nursing care which are important to patients rather than to those relatively less important. Figure 1 offers practical guidance to healthcare operators and professionals as to where they should devote efforts and resources.

Where “importance” to patients and patient “satisfaction” are high, they should maintain the state of affairs (top-right). Where importance is low but satisfaction is high, they may consider shifting resources elsewhere (top-left). Where importance and satisfaction are both low, they may need to allocate more resources in the long run (bottom-left). Finally and most importantly, where importance is high but satisfaction is low, they must take urgent action to improve satisfaction which in turn requires urgent allocation of more resources (bottom-right).

Figure 1: Resource Prioritisation Guidance



## 5. Limitations

The number and geographic distribution of respondents may represent some limitation for the study. In addition, respondents were not asked which department of the hospital they were treated. Since the quality of treatment received from nurses may vary by department, such inquiry may be included in future studies. Another limitation is that there is no distinction between the types of healthcare facilities where the subject-matter nursing services were received. Therefore, future studies may focus on the expectations of and satisfaction with nurses working at private healthcare institutions, and reveal differences in nursing services based on types of facilities. The administration of the developed questionnaire in different countries may reveal cultural differences by country. On the other hand, the results that may arise depending on the gender differences of the participants can also be discussed in future studies.

## 6. Conclusion

As nursing care quality is crucial both as competitive advantage to healthcare institutions and as part of healthcare infrastructure, it is important for healthcare operators and professionals to identify the most important aspects of patient expectations of and satisfaction with nursing care quality so that they can enhance quality through efficient use of scarce resources.

A method called “entropy weight” was used in this to improve the accuracy in quantifying patient expectations of and satisfaction with nursing care quality in order to ultimately identify and rank-order quality



aspects by importance. The study identified two factors namely reliability and individuality of nursing care through factor analyses based on scores of improved accuracy. The knowledge of what aspects of nursing care are important to patients as well as how a healthcare institutions perform on those aspects should definitely provide decision guidance to healthcare operators and professionals. Thus they can allocate more resources to aspects important to patients on which performance is relatively poor.

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## CHAPTER IV


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### **WILL THE COVID-19 OUTBREAK ELIMINATE OWNERS AND BUYERS' EGOCENTRIC EMPATHY GAP? AN EXPERIMENT ON ENDOWMENT EFFECT**

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#### **1. Introduction**

Empathy is described as an ideal mechanism to form the basis of altruism in response to someone else's needs, pain, and distress (De Waal, 2007). It is stated that altruistic motivation emerges along with empathy towards a person in need (Batson, 1990). In the study of Adam Smith (1759), the concept of sympathy is known to be actually used instead of empathy since then the term empathy had not been used yet. Ashraf, Camerer & Loewenstein (2005) put forward Adam Smith's seminal work as a preliminary study of behavioral economics and supported it with many examples of empathy. Smith (2010 [1759]) stated that sometimes people lack empathy, whereas sometimes they exhibit too much empathy. For instance, people from another country who hear the news that people have died due to an earthquake in a country tend to go on with their daily routine after getting upset about it. According to Smith, it is, after all, a lack of empathy. However, for example, a mother's pain for her sick child may be more painful for herself than the child's illness, which is excessive empathy. Throughout history, it has been also seen from studies that altruistic behaviors with a feeling of empathy as sharing one's property or money with people with whom he/she never got acquainted without considering his/her own interest (Kamilçelebi & Gürsoy, 2020).

In cooperation based on altruism, induced by empathy, people are expected to sell at any price a good is worth. Likewise, the buyers are not expected to purchase the product at a price below such value. In other words, being the owner or buyer of a good should not affect the value of that good. Nevertheless, various experiments have indicated that the owner tends to attribute more value to a good than its actual worth, whereas the buyer tends to attribute lesser value. In one of the first experiments on the subject, the difference between the willingness to pay for a good, and the

willingness to accept to pay compensation was examined (Knetsch & Sinden, 1984). The lottery tickets were distributed randomly to half of the group consisted of 79 persons, and \$3 was given to each person in the other half. Those with lottery tickets were given the option to choose between a \$70 worth of gift voucher and \$ 50 cash to be spent in a bookstore in case they won. After a while, both groups were offered both lottery tickets and \$ 3 cash options once again.

In fact, it should have not mattered if the participants were randomly awarded cash or lottery tickets at the beginning of the game. They should have chosen the lottery ticket if they attributed more value to it higher than \$ 3, otherwise, they should have preferred the cash. However, 82% of those who started with lottery tickets continued to keep the ticket, whereas merely 38% of those who started with cash wished to purchase lottery tickets. Thus, it influenced the initial random distribution preferences and revealed that people were more likely to retain what was originally distributed, even if randomly. Furthermore, Knetsch and Sinden estimated the probability that a randomly selected individual would be willing to accept different payment levels, and that a randomly selected individual would be willing to pay various amounts, and determined an expected value from the data for willingness to pay and willingness to accept. Then, when they multiplied those probabilities by the respective amounts (\$ 1, \$ 2, \$ 3, or \$ 4) to get an expected value, they determined the willingness to pay as \$ 1.28, and the willingness to accept as \$ 5.18. Therefore, their evidence was consistent with the survey evidence that estimated the willingness to pay four to five times higher than the willingness to accept (Kamilçelebi, 2019).

By further developing such a difference between the willingness to pay and willingness to accept, the endowment effect experiments have been designed. A coffee mug engraved with the logo of a university was utilized in the experiment, which revealed the endowment effect. The market price of the coffee mug was around \$ 6. Coffee mugs were randomly distributed to half of the participants who volunteered in the experiment, and they were referred to as the sellers. The sellers were requested to exhibit the coffee mugs on their desks for a while, and consequently so that the buyers who have not been given any mugs would have gazed at these mugs. The sellers were asked to set the selling price, whereas the buyers set the purchasing price. The sellers also had the right not to sell their mugs. As a result of the experiment, the average purchasing price was determined as half of the average selling price. The predicted number of purchases was found lower than half the number predicted by the standard theory. In the study, the sellers who were initially given coffee mugs wished to sell their mugs at a high price, while the majority of them did not wish to sell their mugs at all, whereas the buyers offered low prices,

and the endowment effect, which refers to the abandonment of selling or overvaluation due to the ownership of a good, occurred (Kahneman, Knetsch & Thaler, 1990).

In another experiment that revealed an endowment effect, approximately half of the students in a class were given pens, while others were given a token that could have been paid for an unspecified gift. Later on, all participants were given an option to choose between a pen and two bars of chocolate. In that experiment, the endowment effect was also revealed. The pens were preferred by 56 percent of those who owned them, but merely 24 percent of the other participants chose the pens. The authors explained that as the heavily weighing pain of giving up ownership of a good (Loewenstein & Kahneman, 1991).

In another experiment, selectors were included besides the buyers and sellers. The buyers can purchase the coffee mugs with their own money. Selectors, on the other hand, can either choose the coffee mug or money of which they can determine the amount. Upon considering the results, the value of the mug was determined as \$ 7.12 by the sellers. The selectors set a lower figure (\$ 3.12) than the sellers did. The figure set by the buyers for the coffee mug (\$ 2.87) was lower than the figure set by the other two groups. The difference between prices determined by the sellers and buyers was noteworthy. The authors attributed the reason underlying the sellers' high pricing for the coffee mug and their reluctance to give up the items in their possession to the pain of losses which was twice as high as the gains, and they stated that the sellers perceived it as a loss (Kahneman, Knetsch & Thaler, 1991). Those experiments have been repeated by other authors, and it has been described as an egocentric lack of empathy due to the endowment effect, whenever people did not wish to value the goods in their possession and did not wish to sell them, or the owners determined the selling price much higher than the market price and the purchasing price (Van Boven, Dunning & Loewenstein, 2000; Van Boven, Loewenstein & Dunning, 2003). In an experiment, it was detected that people who did not have an item in their possession estimated the value to which those who had the items attributed as low, and even underestimated the value to which they would have attributed if they had the items themselves (Van Boven, Dunning & Loewenstein, 2000; Loewenstein, O'Donoghue & Rabin, 2003).

In another experiment, a certain group of students was given coffee mugs, but not the other group. In that experiment, unlike the other experiments, both groups were asked to set the selling price. Those who possessed the coffee mugs set a price for their mugs at \$ 6.37, whereas those who did not possess set a price at \$ 1.85. Those who had mugs in their possession were asked to estimate the price at which those who have not been given any mugs would have purchased those mugs, and those who

had no mugs were asked to estimate the price at which the mug owners would have sold their mugs. The mug owners' average estimates were \$ 3.93. Although that price was lower than the selling price, they reported in the first experiment, its average was higher than either of the two reported purchasing prices. The average price for the buyers without mugs was \$ 4.39 which was higher than their average purchasing price, but lower than the average selling price. Here, the erroneous estimates made by the projection bias of the buyers about how valuable the mugs would have been to themselves if they had mugs were statistically revealed. It was claimed to be stemming from the egocentric empathy gap (Van Boven, Dunning & Loewenstein, 2000). The projection bias caused people to overestimate reference-dependent goods and exaggerate the endowment effect. The underlying reason for that was the inability to empathize with the decisions made (Loewenstein, O'Donoghue & Rabin, 2003; Kamilçelebi, 2020a).

Loewenstein & Adler (1995) proved in another experiment that predicted selling prices were significantly lower than actual selling prices. Therefore, the empathy gap has emerged as a result of people's misconceptions about their next predictions and their inability to put themselves in the other's place. The desire of individuals to satisfy their current desires and emotional states may cause them to not comprehend the feelings of the other persons (Loewenstein, O'Donoghue & Rabin, 2003; Loewenstein & Schkade, 1999) and reveal their feelings of commitment to the goods in their possessions (Kogut & Kogut, 2011).

In order to induce empathy behaviors of individuals and to observe the differences in empathy behaviors, there are also studies priming a certain word group, certain emotional behaviors, visualization, and video prior to experiments (Higgins, Rholes & Jones, 1977; Srull & Wyer, 1979; Bargh & Pietromonaco, 1982; Shariff & Norenzayan, 2007; Posten, Ockenfels & Mussweiler, 2014). For example, in an experiment designed as an empathic dictator game, a video clip with the image of a mother who passed away was featured and the game was played following that video clip. In the other group, a non-emotional (neutral) video clip was watched by the participants and the standard dictator game was played. Upon comparing both groups, a significant relationship was found between the empathic dictator game and empathy/altruistic behavior, and it was revealed that the video clip that caused empathy significantly predicted generosity (Klimecki et al., 2016). The first case of Covid-19 in Turkey was reported on March 11, 2020. Due to the Covid-19 pandemic, various mandatory rules such as wearing masks have been introduced to individuals in Turkey. Those who do not wear a mask are being fined (Provincial Public Health Decision No. 60). There are studies which claimed that individuals who ignored social norms should have been imposed an informal punishment (Boyd et al., 2003; Kamilçelebi, 2020b).

With the sense of empathy, individuals can help people with whom they never get acquainted at all, or sometimes use this as an altruistic method of punishment to fine those who do not care for the other's interests, those who do not fulfill their responsibilities for protecting the well-being of other people. This is considered as a punishment caused by altruism induced by empathy in the literature (Fehr & Gächter, 2002). In this study, the endowment effect experiment is designed based on those experiments and it is one of the original and pioneering studies in the literature that deals with the extent to which the Covid-19 pandemic affects people's feelings of empathy, in particular, and whether or not it would reduce the egocentric empathy gap mentioned in the literature. Moreover, it is considered whether or not the subjects would impose an altruistic punishment by selling the pen at a price higher than the market price compared to those who do not wear masks.

## **2. Method**

### **2.1. Subjects**

The experiment is designed in a way similar to the endowment effect game and performed by the participation of the students of the Economics Department, Istanbul University using “Istanbul University”-engraved pens. The game is played by a total of 133 individuals. 71 of the participants are female, and 62 of them are male. Their average age is 22. There are four groups in the experiment consisting of two control groups of non-empathy-primed buyers and sellers, and two groups of empathy-primed buyers and sellers related to the Covid-19 outbreak.

### **2.2. Procedure and Materials**

The data is designed as a game that generates a standard endowment effect. The experiment is performed on September 21, 2020. The token and “Istanbul University”-engraved pen are utilized in the experiment. The average selling price of the pen is TRY 10 in the market. Participation in this survey is voluntary. The survey questionnaires are sent to the e-mail addresses of the students of the Faculty of Economics, Istanbul University who voluntarily participate in the survey. Students (sellers) who own property are shown a photo of the “Istanbul University”-engraved pen, and they are told that if they can sell the pen in their possession to the students (buyers) who have not been given any pen by setting a sale price if they wish to do so. The same item's image is shown to the buyers, and they are told that this item is given to another student group (sellers) in the game, that they would set a purchasing price if they wish to do so, and if the seller wishes to sell at the purchasing price, they can purchase the item. Since the game is played through an online questionnaire, in order for the pen to generate an endowment effect, the sellers are asked to write down a shipping address. It is stated in the

questionnaire that if a shipping address is not requested from the group to which the item is not given if they prefer to purchase the item and the seller accepts the amount of money offered, their shipping address would be requested and the amount of money would be delivered to them through the experimenter. Before the game in which the endowment effect is to be tested, a visual with which they can empathize similar to the video image used in Klimecki et al. (2016) is shown to the empathy-primed buyer and seller groups. This image is obtained from a documentary video of the official national channels in Turkey (TRT Documentary).

In the video image, a medical doctor's statements regarding a colleague who has died due to the Covid-19 pandemic are subtitled. The doctor asserts that the person who just passed away due to respiratory failure caused by Covid-19 was a friend and staff member of Istanbul University, that he is shocked and upset, and that the same thing could happen to himself. Apart from this empathy-primed group in the experiment, there are also two control groups. The same procedure applies to them, and instead of an empathy-priming visual image, a neutral office image that does not express any emotion is shown to them before the game is played. In this image, men and women work at their desks, on their computers in the office.

In certain places in Turkey wearing masks requirement was brought since April 2020 (Provincial Public Health Decision No. 20). That is why all groups are also asked the price at which they would sell the pen to the masked and unmasked persons and it is determined whether or not the empathy gap occurs due to price differences. For this purpose, photographs of average reliable Turkish women and average Turkish men in the study of Saribay et al. (2018, p. 16) are utilized. These photos are shown both with and without masks. All groups are asked within the range of minimum TRY 1 and maximum TRY 20. Upon completing the experimental questionnaire is completed, the money transfer of those with the same price offered by the sellers and the prices offered by the buyers are made through the experimenter. If those who wish to sell the pen cannot find a buyer at the price offered, a pen is sent to them.

### **3. Results**

The results are obtained with the Stata software. The Cronbach's alpha value is 0.7280. The students in each group are asked to indicate which of the positive, negative, and neutral emotions that the shown images evoke, and the relationship between pen purchasing and selling is evaluated.

**Tab.1: Relationship between the Emotions in Images Shown to Buyers and Sellers and Purchase-Sell Decisions**

Groups	p	Adj. R <sup>2</sup>	Std. Err.	t
Pen Owner (Seller), n=43, Empathy Group	0.000	0.8907	.0996	18.53
Buyer, n=30, Empathy Group	0.000	0.4082	.2618	4.58
Pen Owner (Seller), n=31, Control Neutral Group	0.002	0.2712	.3388	3.49
Pen Buyer, n=29, Control Neutral Group	0.005	0.2250	.3486	3.02

As can be seen in Table 1, a positive ( $R^2 = 0.8907$ ) and strong relationship is found between the negative image, which is the dependent variable, and the sale of the pen in the possession of the empathy group. In the buyer group, a significant relationship is found between negative image and buying process ( $R^2 = 0.4082$ ). A significant but weak relationship is detected between selling ( $R^2 = 0.2712$ ) and purchasing ( $R^2 = 0.2250$ ) the pen, based on the dependent variable, which is the neutral image in the control group with the office photo.

**Tab.2: Pen Sale of Pen Owners and Predicted Purchasing – Selling Prices**

Groups	"Istanbul University"- engraved pen (TRY)							
	The price at which you wish to sell	The min. price at which you prefer to sell	The max. price at which you prefer to sell	The max. price at which an average person prefers to purchase	At what price would you be willing to sell it?			
					Woman without mask	Woman with mask	Man without mask	Man with mask
Pen Owner, n=43 Empathy Group	9.51*	8	15	10	11.67	8.76	11.81	9.04
Pen Owner, n=31, Control Neutral Group	7.5**	5	9	10	9.25	7.83	9.61	9.32

\*(n=30), \*\*(n=9) Note: Their averages are stated.



As seen in Table 2, it is detected that the participants who are given pens are affected by the images shown to them and 70% of them determine a selling price by expressing that they are willing to sell the pens in their possession at an average price of TRY 9.51. On the other hand, 29% of the control group state that they are willing to sell their pens at an average price of TRY 7.5. As can be seen here, the empathy group is more sharing. They also state a price lower than the average market price of the pens. A lower price is determined in the control group, despite the low number of individuals who are willing to sell. Upon comparing all prices, it is seen that the empathy group reports higher prices than the control group, except for the selling price to the man with mask. Here, it can be explained that the passing of the Istanbul University member in the image may have an effect on them as a student, and considering the highest prices at which they would prefer to sell, they feel more belonging and valued in this respect than the other group. It is revealed that both groups wish to sell the pen to the individuals with masks at a lower price in the selling price for women and men with and without masks.

**Tab.3: Pen Purchase of the Buyers and Predicted Purchasing – Selling Prices**

Groups	“Istanbul University”-engraved pen (TRY)								
	The price at which you wish to purchase	At what price would you prefer to sell	The max. price at which you prefer to purchase	The min. price at which an average pen owner prefers to sell	The max. price at which an average pen owner prefers to sell	At what price would you be willing to sell it?			
Woman without mask						Woman with mask	Man without mask	Man with mask	
Buyer, n=30, Empathy Group	3.6*	8.66	4.66	5.5	9.33	7.05	6.75	7.25	6.95
Buyer, n=29, Control Neutral Group	3.5**	13.33	6.11	7.33	13.22	10.44	9.1	10.75	8.75
*(n=15), **(n=8) Note: Their averages are stated.									

As seen in Table 3, it is detected that the participants who are given any pens are affected by the images shown to them and 50% of them determine a purchasing price by expressing that they are willing to purchase the pens in their possession at an average price of TRY 3.6. 28% of the control group state that they can purchase the pens in the visual

image at an average of TRY 3.5. As can be seen here, the empathy group is more sharing. They state a price much lower than the average market price of the pens compared to the sellers. Upon comparing the prices, it is seen that the empathy group reports lower prices than the control group in all the questions except for the purchasing price. Here, just like the endowment effect, there are serious differences between the purchasing and selling prices. It is revealed that both groups wish to sell the pen to the individuals with masks at a lower price in the selling price for women and men with and without masks. There is a difference of TRY 5.91 between the selling and purchasing prices. The control group buyers, who are not induced by empathy, assert that although they wish to purchase the pens at TRY 3.5, they would offer a sale price higher than the market value if they had them. Therefore, the matching number of the prices at which the seller wishes to sell and the prices at which the buyers wish to purchase are low, and the pens and tokens are transferred through the experimenter.

#### **4. Conclusion**

According to the analysis results, it was revealed that the value attributed to the pens by the participants who were given a pen is higher than of those who were not given a pen, similar to the literature. As stated in the literature; the egocentric empathy gap, which is caused by the price differences due to the high value attributed to a property owned, somewhat decreases here. Although the participants do not have the knowledge of the item's market price, the majority of the pen holders wish to sell the item at a bit lower than the market price. However, 30% of them do not wish to sell the item. This is justified by a significant conclusion drawn regarding the doctor's image, which mentions the Istanbul University staff who have lost their lives due to Covid-19, which affects the students emotionally who empathize with it. Nonetheless, the buyers tend to attribute less value to an item they do not own in compliance with the literature. Therefore, although the presence of an empathy gap that consists of both those who do not wish to sell the item and the price difference is detected, it is apparent that the price differences cannot be compensated by the buyers who underestimate the value of the item, not because the sellers, i.e. the item owners, who overestimate the pen.

These differences arise when the maximum price at which an average pen owner would sell is compared with the maximum price at which the sellers would sell the pens. In the buyers' group, those who wish to purchase the pens are few in number, and the value they attribute to the pen is even much lower. This reveals the endowment effect, and thus, the lack of empathy. In sales decisions for those who wear masks and those who do not wear masks, it is revealed that all groups approach individuals with masks at a lower price than those without masks, and they prefer to sell pens at a higher price to those who do not wear masks. It is determined

that the empathy-primed group tends to sell to an individual without masks at higher prices in comparison to the control group. This result reveals that individuals whose empathy is induced by visual images impose altruistic punishment on those who ignore social rules through which they empathize with individuals wearing and not wearing masks. Therefore, it is apparent that all individuals look after the other and approach the other emotionally regarding the mask. In this sense, the study also reveals the presence of sensitivity to wearing a mask.

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## CHAPTER V


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# THE RELATIONSHIP AMONG WORK ENGAGEMENT, WORK ALIENATION, AND INTENTION TO LEAVE: A STUDY ON BANKING SECTOR

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### 1.Introduction

Factors such as productivity, growth, efficiency, and productivity are quite crucial for companies. In the classical management approach, it is seen that profit-seeking companies tend to focus on factors other than the human factor. With the abandonment of the classical management approach in the 1930s, the human factor has become an important element for organizations. As of today, the organizational environment is becoming even more complex. The product, technology, marketing, and competitive strategies of companies change over time to cope with rapidly changing business and competitive conditions. The most important factor that would lead them to organizational goals maintains its importance as the “human element”. Nonetheless, the “positive psychology” movement is becoming increasingly important in the field of organizational behavior (Abdullah, 2009: 23; Güler, 2008: 199). Positive psychology (Luthans et al., 2006: 25), which focuses on the right thing and means to improve it, provides essential contributions to the organization and the employee (Karacaoğlu and İnce, 2013: 142). Positively oriented studies, which are increasing day by day in the field of organizational behavior, indicate that focusing on strengths provides more effective and productive results (Luthans, 2002: 695; Met, 2010: 889). So much so that understanding human behavior in the workplace and eliminating negative attitudes is very crucial to gain a competitive advantage and to maintain sustainability. Positive thoughts of the employees towards the organization increase their commitment to the



company and their organizational performance while mitigating negative organizational behaviors.

One of the leading issues of positive psychology is the work engagement of employees. Engagement plays an important role in achieving organizational goals. Otherwise, it is expected that work alienation would increase and intention to leave would emerge. So much so that employees who do not feel any commitment to their jobs and lack the desired job conditions would experience work alienation such as meaninglessness and powerlessness over time. The intensification of these feelings towards the job and the organization leads to intention to leave, and employees would seek new jobs.

Based on these basic theoretical assumptions, the study aims to reveal the causal relationship patterns among work engagement, work alienation, and intention to leave. First, the theoretical framework related to these three concepts is presented. The emergence of three concepts, their theoretical foundations, antecedents, and results are discussed. In recent studies, the acceleration of negative organizational behavior phenomena on bankers draws attention. The highly competitive banking sector is among the service sectors with intensive emotional labor. It is thought that determining the status of the issues mentioned for these and similar reasons in the relevant sector would make an important contribution and the field study is conducted with the participation of bank employees. Consequently, the correlation and regression analyses are performed and possible relationship patterns among the variables are determined. In the conclusion section, the obtained findings are discussed and some suggestions for the relevant academic field and practitioners are presented.

## **2. Conceptual Framework**

### **2.1. Work Engagement**

The phenomenon called work engagement was first coined by Kahn in 1990. Kahn defined engagement as the contribution of organization members to their work performance. In engagement, an individual expresses and employs himself/herself physically, cognitively, and emotionally committed to his/her job. Employees with work engagement tend to work with more effort of their own will than others. In the case of disengagement, employees' personal selves are separated from their job roles. In other words, disengagement reduces the performance of individuals and causes them to defend themselves physically, cognitively, or emotionally (Kahn, 1990: 694).

There is still no consensus about the Turkish version of the phenomenon referred to as "engagement" in the English literature. In this study, the concept expressed as work engagement has been conceptualized

by different authors as “Indulging in work”, “Devotion to work”, “Being attracted to work”, “Engagement”, “Passion for work” and “Commitment to work” (Öner, 2008; Ardiç and Polatçı, 2009; Kaya, 2018; Bal, 2008; Dalay, 2007; Güneşer, 2007; Koçel, 2017; Metiner, 2019; Bostancı and Ekiyor, 2015).

Work engagement is associated with several established structures in organizational psychology such as organizational commitment, job satisfaction, or job involvement. However, according to Maslach, Schaufeli, and Leiter (2001), work engagement is a completely different phenomenon from these concepts. Organizational commitment is related to the individual’s attitude towards the organization. In this context, the focus of organizational commitment is the organization, whereas the focus in work engagement is the work itself. Job satisfaction refers to an individual’s satisfaction with his/her job. So much so that the employee provides a sense of satisfaction by meeting the needs of the institution or the job with his work. On the other hand, job involvement is quite similar to the dedication dimension of the phenomenon of work engagement, but it does not include energy and effectiveness dimensions. According to all these concepts in the field of organizational psychology, the phenomenon of work engagement has a more comprehensive and complex perspective about the individual’s relationship with his/her job (Maslach, Schaufeli, & Leiter, 2001: 416).

Kahn (1990) examined the work engagement, which he described as a psychological state occurring based on the conditions, in three dimensions: cognitive, physical, and emotional. Based on Kahn’s work, Schaufeli et al. (2002) also developed a work engagement model with three-dimensions. In this study, work engagement is analyzed according to cognitive (vigor), emotional (dedication), and physical (absorption) dimensions. Schaufeli et al. (2002) confirmed Kahn’s model, but since Kahn’s dimensions were highly comprehensive, they named their dimensions with a prominent feature of each dimension which he considered.

The cognitive (vigor) dimension of work engagement refers to the individual’s mental resilience and a high level of energy while working. The individual is willing to work even in the presence of difficulties. The cognitive (vigor) dimension is characterized by persistence. The emotional (dedication) dimension, referring to a sense of meaning that the employee has pertaining to his/her job, is characterized by enthusiasm, inspiration, pride, and challenge. The individual’s participation to work is essential, not his/her commitment to work. Although this state of participation is defined as the psychological identification of the individual with his/her job, it goes a step further both quantitatively and qualitatively. It has a wider scope reflecting not only a cognitive dimension but also an

emotional dimension. The physical (absorption) dimension, which is the final dimension of work engagement, refers to the individual's complete concentration on his/her job. Time passes quickly for the individual who is deeply indulged in his/her work. It is very difficult for an individual, who does not realize that time passes rapidly while working, to detach himself/herself from work (Schaufeli et al., 2002: 74,75). In this context, the phenomenon of work engagement that can occur in three different dimensions is thought to have a negative impact on employees' intention to leave and work alienation.

## **2.2. Work Alienation**

Kanungo (1979: 131) described the concept of work alienation as a psychological dismissal that occurs when the employee thinks that his/her needs and expectations connected with the organizational structure are not met. According to Kanungo (1983: 120), a negative situation arising in the working conditions of the employee causes alienation and an inefficient workforce. Other organizational factors causing work alienation are organizational structure, management style, ethical climate (Chiaburu, 2014: 25), working conditions, and group characteristics. Among the environmental factors that lead to work alienation, there are many factors such as economic structure, social structure, cultural structure, and legal structure (Şimşek et al., 2006: 546).

According to Seeman (1959: 784), work alienation consists of five different dimensions as powerlessness, meaninglessness, normlessness, isolation, and self-estrangement. Although these dimensions are correlated under certain conditions, each of them is independent. The powerlessness dimension involves the fact that the employee thinks of the actions taken to achieve his/her goals are ineffective and inadequate (Blauner, 1964: 18), whenever the employee cannot have control over his/her work (Seeman, 1959: 784). The meaninglessness dimension is related to the employee's ability to attribute meaning to his/her work or to an event in which he/she is involved (Arslan, 2016: 32). It expresses the indecision of the employee as to what he/she should believe. In the normlessness dimension of work alienation, the norms and values of society seem meaningless to the employee. Therefore, the employee exhibits unusual behaviors. The fourth dimension, isolation, refers to the detachment of the individual from his/her social environment. Unable to adapt to the social structure, the employee fails to establish effective and meaningful relationships with other individuals (Şimşek et al., 2006: 574). According to self-estrangement, which is the last dimension of work alienation, the employee moves away from his/her own self and does not enjoy his/her daily work (Korman et al., 1981: 344). In this context, the work alienation phenomenon that can occur in three different dimensions may lead to many

negative individual, social and organizational consequences. One of these consequences is thought to be the intention to leave.

### **2.3. Intention to Leave**

It is desired that the employee turnover rate be low in companies. Employee turnover rate, which is considered to be an indicator of the success level of an organization, is crucial for effective and productive employment (Eren, 2014: 276). Companies invest in their employees in order to recruit and improve them later. High employee turnover rates, on the other hand, inflict high costs for companies. The cost of replacing an employee leaving his/her job is almost twice the salary of the employee. Upon examining different sectors, it is seen that the negative impacts of employee turnover rate are equally valid for each sector (DeConinck and Bachmann, 2005: 874). The movements of individuals out of employment that negatively affect organizational activities are a situation that stakeholder owners and managers do not prefer to encounter. It occurs in two different ways, namely, voluntary and involuntary leaves (Cheng and Brown, 1998: 137). The reason for involuntary turnover; in other words, the movement out of employment, is usually related to the weakness of the harmony between the employee and the organization. In this regard, companies act in line with their own corporate culture and strategies (Barutçugil, 2004: 477). What is aimed to be prevented here is the voluntary turnover, in other words, the employees leaving their jobs on their own free will. Many researchers such as those who investigated the employee turnover resulting from voluntary turnover stated intention to leave as the antecedent of the employee turnover (Mobley, 1977; Steers & Mowday, 1981; Hom, Griffeth & Sellaro, 1984). As a result of the research studies, it is very crucial that intention to leave, the most determining factor of the employee turnover rate, is low or does not exist at all.

### **3. Methodology and Field Study**

The research study was carried out within the framework of the correlational survey model, one of the quantitative survey models. The causal relationships among the cases were determined in the correlational survey model. First of all, the levels of the employees' work engagement, work alienation, and intention to leave which can occur in different dimensions, were determined; then, correlation analysis was conducted to identify the relationships among the dimensions; and finally, regression analysis was performed to determine the causal relationship patterns of the three main phenomena with each other.

Research data were collected through the scales designed to measure all three dimensions. The population of the research consisted of white-collar employees working in the banking sector in Antalya / Alanya. In this context, the field study was conducted between January-February 2020.

142 out of 250 questionnaires distributed by convenience sampling method were obtained.

In order to determine the work engagement levels of employees, a three-dimensional scale (Utrecht Work Engagement Scale-UWES) developed by Schaufeli et al. (1981) consisting of 17 items was utilized. This scale, which has been widely used in Turkish studies, was adapted into Turkish by Gündüz, Çapri, and Gökçakan (2013). Sub-dimensions of the scale consist of vigor, dedication, and absorption dimensions stated in the relevant literature.

As a result of the factor analysis performed utilizing the data obtained from the work engagement scale, it was seen that the scale had a three-dimensional structure (Kaiser-Meyer Olkin-KMO = 0.860). Similar to the original scale; the “vigor engagement”, “dedication engagement”, and “absorption engagement” dimensions consisted of 5, 3, and, 5 items, respectively. Four items were excluded from the analysis since their factor loadings were low. The total variance explained is 72.946%. According to the results of the reliability analysis, the Cronbach’s alpha values of the dimensions were within the confidence interval specified for quantitative research: vigor engagement ( $\alpha = 0.886$  / explained variance: 26.559%), dedication engagement ( $\alpha = 0.852$  / explained variance: 22.437%) and absorption engagement ( $\alpha = 0.867$  / explained variance: 23.950%) (Altunışık et al, 2012).

In the study, the work alienation scale, which was developed by Mottaz (1981) and translated into Turkish by Uysaler (2010) and whose validity and reliability study was performed, was utilized in the study. Mottaz’s Work Alienation Scale (WAS), which was used in many studies (Arslan, 2016; Moç & İşcan, 2018), consists of three dimensions. These dimensions are “powerlessness”, “meaninglessness” and “self-estrangement”. There are 7 different statements for each dimension in the scale consisting of a total of twenty-one items.

According to the factor analysis results, a structure consisting of 12 statements and four dimensions was obtained. Four variables with six diagonal values of 0.5 in the anti-image correlation matrix were excluded since they had a distorting impact on the solution (Altunışık et al., 2012: 293). In the factor analysis performed later, 5 statements with low factor loadings were not included in the evaluation. As a result of the analysis, the Kaiser-Mayer Olkin (KMO) test value was calculated as 0.760. This value indicates that the work alienation scale has significant factor dimensions, as it is greater than 0.60 (Büyüköztürk, 2012), which is specified as the lowest value for any scale’s suitability for factor analysis. The total variance explained was 74.254%. According to the results of the reliability analysis, the Cronbach’s alpha values of the dimensions were

seen to be within the confidence interval specified for quantitative studies: powerlessness ( $\alpha = 0.729$  / explained variance: 16.685%), meaningfulness ( $\alpha = 0.685$  / explained variance: 17.316%), self-estrangement(1) ( $\alpha = 0.743$  / explained variance: 16.204%), and self-estrangement (2) ( $\alpha = 0.797$  / explained variance: 24.049%) (Altunışık et al., 2012). The statements collected in four dimensions different from the original scale were rearranged in order to maintain the original scale. With this rearrangement, two statements in the dimension of self-estrangement1 (Questions 18 and 20) were included in the dimension of self-estrangement2 (questions 17, 19, and 21) as in the original scale. The Cronbach's alpha value ( $\alpha = 0.797$ ) of the "self-estrangement" dimension generated by combining "self-estrangement1" and "self-estrangement2" dimensions was within the specified confidence interval.

In order to determine the employees' intention to leave, the scale developed by Cammann et al. (1979) consisting of 3 statements was used. Questions measuring the intention to leave were the questions numbered 18-19-20 in the second part of the questionnaire. Question number 18, which had a negative expression in the original scale, was asked in reverse and addressed to the employees with a positive expression. According to the factor analysis results; the factorial structure of the scale had a single factor structure in accordance with its original structure (Kaiser-Mayer Olkin-KMO = 0.783). The total variance explained in the analysis was 59.385%. According to the results of the reliability analysis; it was seen that the reliability coefficient (Cronbach's alpha = 0.765) of the intention to leave was within the confidence interval specified for quantitative studies.

First of all, frequency analysis was carried out to determine the demographic characteristics of the employees participating in the study. According to the results, 52 (42.6%) of the participants were male, whereas 66 (54.1%) were female. 4 participants failed to specify their genders. Upon considering the age range of the employees, there were 26 individuals between the ages of 20-30, 76 between the ages of 31-40, and 10 between the ages of 41-50. 4 participants did not answer about their age ranges. The number of married participants is 70 (57.4%), whereas the number of single participants was 48 (39.3%). Upon considering the education levels, it was seen that there were 4 individuals with a high school degree, 4 with a vocational school diploma, 4 with a master's degree, whereas 96 with an undergraduate degree. In other words, most of the employees (78.7%) were undergraduate graduates. Participants tended to leave this question unresponded the most with a total of 14 individuals. Consequently, it was determined that 14.7% of the employees have been working in the sector for less than five years, whereas 37.7% have been working for 5 to 10 years, and again 37.7% have been working for 10 to

15 years. The rate of those who have been working in the same company for at least 4 years was 31.4%. 4 participants did not specify their duration of work.

Within the framework of these data, it was seen that most of the participants in the study were between the ages of 31-40, undergraduate graduates, and have been working in the banking sector for 5 to 15 years.

#### 4. Findings

Within the scope of the aim of the research study, firstly, the participants' levels of work engagement, work alienation, and intention to leave were determined. According to the analysis results in the table, it was seen that the levels of "vigor engagement" "dedication engagement" "absorption engagement" of the employees participating in the study were quite high. The highest level of engagement belonged to the vigor engagement dimension. On the other hand, in the context of alienation, it was found that employees' levels of powerlessness and self-estrangement were high, and their level of meaningfulness was medium. The same was true for the intention to leave. Within the framework of these findings, it could be said that the engagement level of the bank employees was high, whereas their levels of alienation and intention to leave were moderate.

Dimensions	1	2	3	4	5	6	7	Mean	Std. Dev.
1. Vigor	1							3.565	.937
2. Dedication	.563**	1						3.366	.850
3. Absorption	.567**	.621**	1					3.324	.817
4. Powerlessness	.486**	-.385**	-.393**	1				2.614	.849
5. Meaninglessness	-.149	-.201*	-.285**	.409**	1			2.501	.694
6. Self-Estrangement	-.110	-.393**	-.342**	.448**	.617**	1		2.745	.786
7. Intention to Leave	-.280**	-.540**	-.250**	.366**	.422**	.551**	1	2.961	.933
**p<0.01 *p<0.05									

According to the correlation analysis results in the same table, it was seen that vigor engagement had positive relationships with both dedication and absorption engagement, whereas a negative relationship with the intention to leave. The relationship of vigor engagement with two work alienation dimensions; namely, meaningfulness and self-estrangement was not statistically significant. There was a positive relationship between

dedication engagement and absorption engagement, whereas dedication engagement had negative relationships with work alienation dimensions and intention to leave. Similarly, there was a negative relationship of absorption engagement with the dimensions of work alienation and intention to leave. There was a positive correlation between all dimensions of work alienation (powerlessness, meaningfulness, and self-estrangement) and the intention to leave. The dimensions of work alienation also had positive correlations among themselves.

Table 2. Regression Analysis Results								
Model 1	Intention to Leave							
	B	Std. Error	$\beta$	t	Sig.	r	r <sup>2</sup>	F/p
Constant	4.524	0.389	-	11.625	0.000	.387	.150	19.049/ 0.000
Work Engagement	-0.486	0.111	-0.387	-4.365	0.000			
Model 2	Work Alienation							
	B	Std. Error	$\beta$	t	Sig.	r	r <sup>2</sup>	F/p
Constant	3.901	0.266	-	14.664	0.000	0.447	0.200	24.516/ 0.000
Work Engagement	-0.379	0.076	-0.447	-4.951	0.000			
Model 3	Intention to Leave							
	B	Std. Error	$\beta$	t	Sig.	r	r <sup>2</sup>	F/p
Constant	0.764	0.321	-	2.383	0.000	0.554	0.307	47.781/ 0.000
Work Alienation	0.819	0.118	0.554	6.920	0.000			

Finally, three simple regression analyses were conducted for the purpose of the study. Table 2 presents the regression analysis results. According to the results in the first model, work engagement explained approximately 15% of the intention to leave ( $R^2 = 0.150$ ). It was determined that work engagement had a negative significance at  $\beta = -0.387$  and 0.001 significance level in estimating the intention to leave. In the second model, the result of the regression analysis was found to determine the impact of work engagement on work alienation. Work engagement explained 20% of the intention to leave ( $R^2 = 0.200$ ). It was determined to have a negative impact on the estimation of work alienation ( $\beta = -0.447 / p = 0.000$ ). According to the results in the third model, work alienation explained approximately 30% of the intention to leave ( $R^2 = 0.307$ ). According to the standardized beta coefficients, it was determined that work alienation had a positive impact in estimating the intention to leave ( $\beta = 0.554 / p = 0.000$ ).



## 5. Conclusion

This study was conducted on bank employees to determine the relationship patterns among work engagement, work alienation, and intention to leave. According to the results, employees' level of work engagement was high, and their intention to leave as well as work alienation was moderate. As employees' work engagement levels increase, their levels of work alienation and intention to leave decrease as expected. So much so that when the correlation analysis results were examined, significant relationships among almost all variables were detected. 19 out of 21 correlations were significant ( $p < 0.01$  /  $p < 0.05$ ). There was a negative correlation between work engagement dimensions and alienation dimensions as well as the intention to leave.

According to the results of the regression analysis, work engagement had a negative impact on work alienation and intention to leave. As the level of work engagement of the participating banking employees increases, their intention to leave decreases. These results comply with the theoretical assumption, conceptual framework, and empirical research results on the subject (Harter et al., 2002; Richman, 2006; Sonnentag, 2003). In a study conducted on 710 hotel employees in China, a negative relationship was found between work engagement and intention to leave. It is observed that the work pressure of the employees who think they have many valuable resources decreases and the employees have higher ranks of work engagement. Employees with such resources have less intention to leave (Wang et al, 2020). In another study conducted in Turkey, a negative relationship was found between emotional engagement and intention to leave (Erdil and Müceldili, 2014). Engagement may provide human resource practitioners and managers with powerful tools to develop efficient strategies. Work engagement contributes to the improvement of organizations' high performance (Rogers, 2001) positive workplace outcomes such as job satisfaction, commitment, productivity, profitability, and low intention to leave (Chalofsky & Krishna, 2009; Geldenhuys et al, 2014).

In future studies, conducting qualitative research as well as quantitative methods may be beneficial in the banking sector, which is a labor-intensive sector. Likewise, in-depth interviews are required to comprehend the social reality of organizational life. It can be investigated the extent to which work engagement is maintained and what other benefits it has for the organization, colleagues, performance, and private life. Individual and organizational factors should be examined in order to eliminate negative attitudes of employees such as work alienation and intention to leave. Examination of research topics from the perspective of manager and leader behaviors may have a positive impact on the literature and business life. It is thought that these questions can be responded by

using quantitative and qualitative research methods concurrently. If companies can attract and retain the best employees as well as motivate their engagement levels, they can gain a very powerful competitive advantage. Companies that seek success and sustainability in the long-run need to develop new approaches to retain high-performing employees with work engagement.

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## CHAPTER VI

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### SENSES IN EXPERIENTIAL MARKETING

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#### **1. Introduction**

People remember the product/service they purchase with their feelings they have at that moment, when they are happy or unhappy at a sales or service delivery point. The music they listen to, the sounds they hear, the smells, tastes, images they have etc. during the presentation of the product/service are effective in the formation of these feelings and experiences. A person who leaves with pleasant experiences when they go to a restaurant may be willing to go back to that restaurant. Although he does not remember the taste of the food, the positive feelings he experienced at the restaurant can make the customer think positively about the quality of the food served. Conversely, a person who has negative experiences about the restaurant may also be hesitant to go back to the same restaurant. In fact, it is likely that he remembers his negative feelings at that moment and feels unhappy when he thinks about the experience at the restaurant. Some people connect with their experience in a store, restaurant, destination etc. and may even describe a product, service or place as “auspicious” or “inauspicious” depending on whether the experience is positive or negative. All these make it an important goal for businesses to focus on the consumption-related experiences of individuals and to provide positive customer experiences.

In this study, in which experiential marketing focusing on the concept of customer experience, which is included in the mission definition of many businesses (Verhoef et al, 2009, 31), first, the concept of experiential marketing, key features of experiential marketing, and then the sensory experience issues are discussed.

#### **2. The Concept of Experiential Marketing**

The rapid evolution of marketing focused on product-to-service and experience has forced marketing researchers to put an experiential marketing approach in place when designing marketing strategies by involving customers (Maghnati, Ling, Nasermodeli, 2012, 169). Pine and



Gilmore, who set a ground for the emergence of experiential marketing by deriving the concept of experience economy, in a long-term perspective, divided the advancement of economic value into four stages referring to commodities, goods, services and experiences (Tsaur, Chiu, Wang, 2007, 48). They provided a framework to explain the transition from service-based marketing to experience-based marketing. According to the authors, as service-based marketing offerings become more and more commoditized, the transition must be made to providing customers with unforgettable experiences in order to gain competitive advantage and customer satisfaction (Pine, Gilmore, 1998; Petkus Jr, 2004, 50).

Schmitt (1999, 53), in his article comparing traditional marketing with experiential marketing, states that traditional marketing sees customers as rational decision makers who care about functional features and benefits. According to the author, in experiential marketing, it is discussed to see customers as rational and emotional people interested in gaining pleasurable experiences (Schmitt, 1999, 53; Tsaur, Chiu, Wang, 2007, 48). One of the main ideas of experiential marketing is that value is not only found in purchasing objects (products and services) and their functional benefits. Value also takes part in the hedonic and experiential elements surrounding the product and service and in the consumption experience itself (Schmitt, Zarantonello, 2013, 26). Thus, experiential marketing addresses the customer's self-image, social goals, emotions, and desires (Srinivasan, Srivastava, 2010, 194).

Experiential marketing constitutes the next reasonable stage in customer demands beyond goods or services (Srinivasan, Srivastava, 2010, 193). Here, experience is the main component of experiential marketing. Businesses often create special stages with different motivational elements such as environments, atmospheres and settings for customers to experience. As a result of these experiences, customers have different perceptions and response according to these perceptions. These perceptions of customers are the result of the marketing activities exhibited by businesses (Yuan, Wu, 2008, 388).

The experiences provided to customers may be similar to those provided to other customers. However, the assimilation of experience is personal (Srinivasan, Srivastava, 2010, 193). In other words, two people cannot have the same experience; because every experience stems from the interaction between the staged event (like a theater play) and the individual's state of mind (Pine, Gillmore, 1998). Thus, experiential marketing creates unforgettable experiences (Yuan, Wu, 2008, 388; Srinivasan, Srivastava, 2010, 194). It offers a great framework for combining experience and entertainment elements in a product or service (Zena, Hadisumarto, 2012, 37). Creating unforgettable experiences is critical to retain old customers and attract new ones (Yuan, Wu, 2008, 388).

It is aimed here to ensure that customers remember these experiences fondly and even share them with their environment to increase sales with the power of word of mouth and customer loyalty (Srinivasan, Srivastava, 2010, 194).

The concept is defined as “the process of engaging customers through two-way communication, which is based on determining and meeting customer needs and requests profitably, realizing brand personalities and adding value to the target audience” (Smilansky, 2009, 5). Another definition is “customers’ recognition or purchasing of a business’s or brand’s goods or services after they have experienced the activities and have perceived arousals”. Experiential marketing motivates customers to make faster and more positive purchasing decisions (de Farias, Aguiar, Melo, 2014, 93). It positively affects the brand image and is effective in creating brand value (Cleff, Lin, Walter, 2014, 7).

### **3. Key Characteristics of Experiential Marketing**

Experiential marketing presents a different approach from traditional marketing with the features of “focusing on customer experiences”, “focusing on consumption as a holistic experience”, “accepting both the rational and emotional drivers of consumption” and “using eclectic methodologies” (Schmitt, 1999, 57-59; Tsaor, Chiu, Wang, 2007, 48; Datta, 2017, 27).

**A focus on customer experiences:** Customer experiences are at the focus of experiential marketing. It is seen that the thought of "what people really want is not products, but satisfactory experiences" is put forward in the 1950s, when looking at the development of the concept of customer experience. Experiential theorists who promoted this thinking in the 1980s supported a broader view of human behavior, especially recognizing the importance of emotional aspects of decision-making and experience (Lemon, Verhoef, 2016, 70). When it comes to the 1990s, it is seen that the studies of Pine and Gilmore (1998) and Schmitt (1999) brought experiential marketing to the agenda.

Customer experience includes the internal and subjective reactions of customers who have any direct or indirect contact with a business. Direct contact usually takes place at the time of purchase, use and service purchase and is often initiated by the customer. Indirect contacts, on the other hand, include unplanned encounters about the presentation of products, services and brands belonging to an enterprise and applications such as word of mouth suggestions, criticism, advertisements, news, etc. Indirect contacts include unplanned encounters and practices such as word of mouth suggestions, criticism, advertisements, news etc. regarding the presentation of products, services and brands belonging to a business (Meyer, Schwager, 2007, 2). Subjective experience, on the other hand,

refers to the customer's involvement at different levels (rational, emotional, sensory, physical and spiritual) (Gentile, Spiller, Noci, 2007, 397).

As the first step towards managing the total customer experience, a business should recognize the tips it sends to customers. Businesses should ensure the meticulousness, which they have in managing product and service functionality, also in managing the emotional component of experiences (Berry, Carbone, Haeckel, 2002, 2).

**A focus on consumption as a holistic experience:** Schmitt (1999, 58) stated that in consumption, consumption should not be evaluated on the basis of a single good or service, but it should be approached to consumption holistically. For example, a cinema ticket, a popcorn, a fizzy drink offers a “cinema night” experience when evaluated together rather than alone. Listening to classical music while visiting a museum can be exemplified as services that are considered to be consumed together (Smith, Redden, 2020, 1). Experiential marketing suggests marketing campaigns to be prepared by considering consumption within the framework of a holistic experience.

Starbucks is a business example based on an experiential marketing paradigm. This example shows how a café has been successfully transformed into a meeting place for customers and, moreover, a Starbucks lifestyle experience. Starbucks is not just a gourmet cup of coffee; it is also a socializing and intellectual discussion center especially for students and young urban professionals. Customers find comfortable seats, wireless internet connection and even downloadable music options here. Moreover, it is a pleasant experience for a wide range of customers through an endless product innovation cycle (Tsai, 2005, 433-434).

**To accept both the rational and emotional drivers of consumption:** It is known that customers do not only follow the functional features of the products or services in their purchasing decisions and satisfaction evaluations. For example, it is suggested to approach the subject in a holistic framework such as physical comfort, psychological comfort, physical product evaluation and sensory product evaluation for a store experience. Experience creates a subjective part in creating or converting customers by emphasizing the emotions and senses experienced in promoting a product or service. Both rational and emotional elements provided during store visits offer shopping experiences that can provide high levels of satisfaction, pleasure and emotional response. Thus, experiential marketers can influence customers' emotional and behavioral responses (Dalmoro et al, 2019, 2054-2058). Here, Schmitt (1999, 58) states that the consumption experience generally pursues “fantasies, emotions and entertainment”.

**To use eclectic methodologies:** While methodologies in traditional marketing are analytical, quantitative and verbal, a wide variety and versatile methodology is mentioned in experiential marketing. It is stated that experiential marketing is not dependent on a single methodological ideology and is eclectic. Studies conducted are not in a way that provides the same standard format for all participants; it usually includes formats customized to the situation at hand (Schmitt, 1999, 59).

#### 4. Senses

Schmitt (1999) mentions the importance of creating “sensory experiences (sense)”, “emotional experiences (feel)”, “creative cognitive experiences (think)”, “physical experiences with behaviors and lifestyles (act)” and “social identity experiences resulting from relating to a reference group or culture (relate)” for customers within the context of experiential marketing. In this study, sensory experiences (sense) are discussed.

People perceive the world through their senses (Krishna, Schwarz, 2014, 162). Human senses are important for individuals' experiences regarding different purchasing and consumption processes. Individuals become aware of businesses, products/services and brands through the senses (Hulten, Broweus, van Dijk, 2009, 1) and customers' perceptions, judgments and behaviors are influenced through senses (Krishna, Schwarz, 2014, 159). Therefore, having knowledge about the senses can make it possible for the marketing activities of a business to be more successful and the sensory experience of an individual to be more personal (Hulten, Broweus, van Dijk, 2009, 1). Lindstrom and Seybold (2003, 97) mentioned the importance of sight, smell, sound, taste and touch for success in brand creation. The limbic brain system affects emotions based on sensory observations of the instinctive brain (Den Bergh, Behrer, 2016, 314). Each of these senses, which also affect the emotions of the customers, are explained one by one below.

**Sight:** Sight is the strongest sense used in marketing. It is stated that more than 80% of commercial communication is done through the sense of sight (Shabgou, Daryani, 2014, 574-575). Brand logos, colors, graphics, names, packages and product design are visual stimuli that can be part of any brand strategy. Moreover, visual stimuli become more important in the absence of verbal material about a product (Hulten, 2013, 19). In addition, customers can be influenced more easily with visuals than texts (Den Bergh, Behrer, 2016, 317). Many visual elements such as curvature, flatness, complexity, simplicity, mobility, stability, pictorial, being digital, informative, persuasive, aesthetic, placed side by side, separated from each other, colorful, illuminated, large-sized, small-sized are used to influence customer experiences and become an experiential marketing element (Raghubir, 2010, 202).

**Smell:** As the emphasis is on consumption as a holistic experience in experiential marketing, ambient scent is as important as the smell of the products. While the existing artificial smell of Play-Doh brings childhood memories to the minds of adults (Den Bergh, Behrer, 2016, 314) and also reminds children of their fun experiences. Ambient scents are another factor that is emphasized as they have the potential to create a positive mood. It is predicted that this will translate into positive store/sales point and product evaluations, desire to spend longer time in the ambient, revisit intentions and positive customer experiences (Morrin, 2010, 75-76).

**Sound:** Sound is agreed as a human sense that has positive effects on customers' moods, preferences and behaviors (Hulten, 2013, 20; Shabgou, Daryani, 2014, 575). The sound of products/services and their sales/presentation environments is important in terms of evaluating customer experiences and creating a positive customer experience. It is suggested that sound should be applied consistently throughout a firm's sensory marketing in order to obtain a distinctive, catchy and flexible sound (Hulten, Broweus, van Dijk, 2009, 71). For example, sound is also taken into account in creating a "multi-sensory taste perception" in the experiential marketing activities to be carried out for a food product. The sound of opening a package or bottle, the sound of cooking, the sound in the environment where customers are eating, the sound heard when chewing food all affect experiences. Perception of crunchiness etc. related to the food is supported by sound. Noise or music elements in the environment are effective on experiences. Successful retail outlets or restaurants improve the consumption experience by carefully creating the right sound environment (Haas, 2017, 93).

**Taste:** Another element used by experiential marketers to influence customer experiences is taste. The taste, which forms the chemical senses with the smell, can contain thousands of chemical reactions and is affected by the sense of smell. Smell is critical in distinguishing tastes and it is stated that the perceived taste experience decreases by up to 80% when the smell is not detected (Hulten, Broweus, van Dijk, 2009, 117-118). The fact that using marketing on the palate can be persuasive and impressive to the customer is one of the reasons why the sense of taste is important for businesses (Shabgou, Daryani, 2014, 576). Toys wrapped in chocolate, strawberry-flavored lipsticks, popping candy, strawberry erasers etc. can be given as the examples of products offered to customers, taking into account the taste element. A nice Turkish coffee served to and a pleasant conversation offered to a woman, who goes to the hairdresser in Turkey, are extremely important. Almost coffee is an integral part of the hairdressing service. Moreover, the pleasant smell of Turkish coffee will support the positive emotions that will be created in the customers.

**Touch:** Tactile cues can be used in product selection and evaluation (Brasel, Gips, 2014, 227). Tactile stimuli are taken from the nerve endings in the human skin. Customers use the sense of touch to learn about the structure, temperature, and shape of an object's surface (Vietoris, 2017, 18). In other words, touching objects, people or products enables the sense of touch, the largest sensory organ of the body, to include physical contact through the skin in the shopping experience (Hulten, 2013, 21). It is stated that most of the research on touch focuses on touch-imagery, interpersonal touch or touching products. It is stated that touch, which is a relatively new research area for customer behavior, can be used to provide both haptic and non-haptic information (Brasel, Gips, 2014, 226-227). Consequently, this is another sensory element that is important for experiential marketers.

In summary, Starbucks succeeds by creating sensory stimulation through sight, sound, touch, taste and smell, which stimulate positive emotions and moods that positively affect the brand image (Cleff, Lin, Walter, 2014, 20). Sensory experiences are strategically important to clarify the identity and values of a business with the goal of creating long-term brand awareness and sustainable brand image. Therefore, it becomes more important for businesses to influence customers in new and creative ways in addressing human senses (Hulten, Broweus, van Dijk, 2009, 2).

## **5. Conclusion**

Creating positive customer experiences is extremely important in today's digital world, where people can share their thoughts about their experiences with each other much more easily. Customers transfer their thoughts and experiences about products and services without any difficulties to each other. When they have a positive experience, they reward the brands with their sharing on the internet, but they sometimes deliberately punish brands if they have negative experiences. Brands that provide memorable experiences, with satisfied customers, both contribute to brand loyalty and enable new customers to be created through word of mouth marketing activities. Focusing on the holistic consumption experiences of customers who are confronted with a large number of products and services, can easily access information, and can evaluate many aspects between products/services/brands is an inevitable issue for the success of businesses. It is mentioned to provide customers with an experience beyond just offering a product or service and to create categories for this.

It is extremely important to capture customers emotionally and to appeal to their senses, as well as impressing them with the functional features of the products. Experiences supported by the senses of sight, hearing, touch, smell and taste are the elements that are used to influence customers. Memorable scents, delicious tastes, impressive visuals or

physical environments, music, sounds and so on, they are all used to attract customers as part of the holistic customer experience. As a result, experiential marketing activities are recommended for businesses that want to create positive brand image and brand value in addition to creating positive feelings in customers.

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## CHAPTER VII

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# THE MEDIATOR EFFECT OF TECHNOLOGICAL INNOVATION ON THE RELATIONSHIP BETWEEN SUPPLY CHAIN MANAGEMENT PRACTICES AND FIRM PERFORMANCES


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### 1. Introduction

Every sustainable for-profit business needs to check their performance regularly. Audit, one of the important tasks of management, which is one of the functions of the business, is a process that involves checking the alignment between the goals and the results and taking the necessary measures. It is necessary to provide inputs used in the production of goods or services for each enterprise. Similarly, the manufactured goods or services must be delivered to the user or to the intermediaries who undertake the task of consumer or distribution. This process, also referred to as the supply chain, needs to be addressed from a holistic perspective. Strategic supplier partnership includes strategic customer relations, information technology use, and logistics integration and delivery applications. The effectiveness of procurement operations is also reflected in the company's performance.

The concept of innovation, which is one of the variables of this research, is expressed as the development of a new idea, product or process in organizations. Any innovation activities related to the supply chain process in the organization can also have a positive or negative impact on the results. For this reason, it has led to the need to search for answers to the following questions: "Is the concept of innovation for the supply chain applications selected in the study important for company performance? What is the role of innovation in the relationship between supply chain applications and performance?"

The research consists of three parts. In the first part, the conceptual framework for variables is drawn. The second part includes information about the method of the research (research model, hypotheses, and scales).

In the third part, the findings and discussion section are included based on the analysis.

## **2. Conceptual Framework**

### **2.1. Supply Chain Management**

Supply chain management is conceptualized in the literature with three different approaches: management philosophy, management philosophy practices and a series of management processes (Mentzer et al., 2001). Monczka et al. (1998) describe supply chain management as providing, integrating and managing the suppliers in many different layers and the functions of these suppliers using the total system approach to control, integrate and manage resource, material and financial flows. Cooper et al. (1997) describes the supply chain management as an integrated management philosophy based on the management of all distribution channels from the supplier to the end consumer. Jones and Riley (1985) define supply chain management as management practices that deal with the total flow of materials from suppliers to final consumers.

It is known that various supply chain management practices have been introduced in the literature to implement supply chain management processes. Min and Mentzer (2004) classify supply chain practices as *common vision and goals, information sharing, risk and reward sharing, cooperation, process integration, long-term relationship and joint supply chain leadership*. Chen and Paulraj (2004) describe supply chain practices based on the seller-buyer relationship, which they consider to be in relation with the supply network structure and logistics integration, as *long-term relationship, communication, cross-functional teams, supplier development and reducing the supplier base*. In their study to determine the relationship between supplier and firm performance and supply chain management practices, Tan et al. (1998) explains supply chain practices as *supply chain management practices of purchasing, quality and customer relations*. In addition, Tan et al. (2002) discusses the applications of supply chain management at a strategic level under 6 factors: *supply chain integration, information sharing, geographic proximity, customer service management, supply chain features and just-in-time (JIT) capability*. Li et al. (2006) gives a multidimensional perspective to supply chain management practices available in the literature and groups supply chain management practices as *strategic supplier partnership, customer relations, information sharing level, information sharing quality and delay (not performing assembly processes until the final consumption point)*. Salhieh (2011), on the other hand, handles supply chain management practices with a holistic and strategic perspective. Salhieh has defined supply chain management practices as *strategic supplier partnership*,

*strategic customer relations, use of information technologies, logistics integration and delivery practices.*

In order to create the best supply chain value within the framework of strategic supply chain management, it is necessary to explain the theoretical infrastructure of supply chain management practices and determine the main foundations. *Strategic supplier partnership* was first brought to the agenda with the emphasis on strategic and long-term management of purchasing activities in purchasing applications and was based on mutual benefit and cooperation (Lamming, 1993; Ellram, 1991). Network theory focuses on strong bond structures between firms based on trust, cooperation and social capital relationships (Cook and Emerson, 1978; Holm et al., 1999). Looking at the business relationship between retailers and suppliers, it is seen that retailers focus on suppliers that add value and benefit to their supply networks, establish strong networks, and establish weak networks with suppliers that do not benefit (Morgan et al., 2007). Considering the fact that strategic supplier partnerships act based on strong bonding structures between the company and the supplier, it supports the basing of the network theory on its basic functions. Transaction cost analysis is known as the theoretical structure based on the similarity of the typical state structures in which firms act by taking into account the costs of transactions (Barney and Hasterley, 1996). Rindfleisch and Heide (1997) explain that transaction costs theory is applied in their studies on the buy-make relationship (Monteverde & Teece, 1982), storage (Maltz, 1994) and distribution relations (John & Weitz, 1988) within the supply chains of firms. Considering the long-term, trust and cost-based structure of strategic supplier partnership relations, it supports the basing of the transactions in procurement activities on transaction costs theory in terms of both transaction size and total cost dimension. Resource dependence theory is a theoretical approach that explains that the balance of power between firms differs according to the resource quality structure they have, and that firm relationships based on resources are regulated (Pfeffer and Salancik, 1978). The variety and quality of resources that suppliers have affects the formation of bargaining power between the company and suppliers in Supplier Relations (Crook and Combs, 2007). The effective role of resources owned by suppliers in the establishment and execution of strategic supplier partnerships helps to base this network of relationships on the theory of resource dependence and explain strategic supplier relationship structures based on mutual trust. Managing supply and logistics activities carried out within the supply chain by establishing strategic partnerships provides the benefit of developing easy solutions to problems encountered in procurement processes and keeping the procurement processes uninterrupted in addition to the benefit of providing long-term, trust-based supply partnerships to businesses (Gunasekaran et al., 2001).

## **2.2. Supply Chain Management Practices**

Supplier relations and customer relations in supply chain management are two areas of investigation that act simultaneously and are in direct relationship with each other. Strategic customer relationship management includes managerial activities carried out to make the relationships of companies with their existing customers sustainable in the long term and to attract the attention of potential customer candidates (Soltani et al., 2018). Kim and Kim (2009) explain the customer relationship management performance success criteria of companies as *common value, profitability and customer equality* from the organizational performance perspective. From the customer perspective, it is explained as *customer loyalty, customer satisfaction, and customer value*. From the perspective of the process, it is explained as *customer acquisition, re-attention of the customer, customer expansion*. From an investment perspective, customer relationship management technologies are described as *employee behavior, employee satisfaction, and management of attitudes, reward system, organizational structure, partnership, clear goals and market fit*. Customer relationship management studies are handled in many different areas (Plakoyiannaki, 2005). In supply chain management studies, since all suppliers are in the position of customers of the previous supply chain member, companies need to manage customer relations as well as supplier relations management successfully. For this reason, supply chain management is considered at a strategic level and is included among supply chain applications (Salhie, 2011). Social Capital Theory describes the ability of firms to access resources through social relationships (Granovetter, 1992). Social capital theory is discussed in three dimensions as structural, cognitive and relational (Nahapiet and Ghoshal, 1998). Cognitive dimension provides the benefit of creating common values between supplier-company-customer in relation to supplier-customer relations. The social capital that companies have indicates the ability to access resources, as well as the ability to transfer existing resources to customers. Strategic customer relationship management, as part of the supply chain applications component, overlaps the social capital theory with the perspective of creating an understanding of shared value. Moberg et al. (2002) points to the creation of a structural form that is based on the customer relations of companies in supply chain management practices and aims to create successful customer relationships since the relationship between supply chain members is based on a customer-supplier relationship.

It is known that information and communication technologies are discussed in three different application areas in the literature among supply chain management application. (Zhang et al., 2016). Changing these areas of practice is considered efforts to improve the effectiveness of supply

chain management. As a priority, the use of intra-organizational Information Technologies in order to accurately determine the purchasing and supply needs of companies has been involved in supply chain management applications (Ward and Zhou, 2006). With the development of information sharing technologies and the knowledge-based approach of supplier-company relations, it is seen that the use of inter-organizational information technologies is included in the supply chain management practices in order to determine the supply needs between the supplier and the company simultaneously and to provide time advantage (Hsu et al., 2008). The use of third information technologies in supply chain management applications is an approach that is based on harmonizing both intra-organizational and inter-organizational information technologies and establishing transparent relations between the supplier and the company and sharing the information regarding all supply needs with the suppliers. Information sharing level and information sharing quality are two basic principles that determine the use of information technology in supply chain applications (Li et al., 2006). Determining the level of information sharing is also divided into two different perspectives of research. These perspectives are as follows: the realization of information sharing at all levels in order to obtain *seamless supply chain efficiency* (Towill, 1997), and the approach that adopts a protective and restrictive approach is the *realization of information sharing at certain levels*. Regardless of the stage of information sharing, the main goal of information sharing is to offer solutions to problems encountered or likely to encounter, and to benefit from the entire supply chain power to react quickly to changing market and competitive conditions. Information sharing quality refers to the reliability, adequacy, accuracy and timely availability of information exchange between companies (Moberg et al., 2002). Information processing theory accepts the open system approach in the management of intra-firm and inter-firm relations (Galbraith, 1974). This approach points to the fact that information sharing between companies in the same supply chain is accessible and actionable by all stakeholders. Gu et al. (2020) explains that information processing theory in supply chain applications serve as a theoretical lens on how information technology structures should be established and implemented between firms, suppliers and customers. The organizational learning theory explains that firms use two different ways to obtain knowledge as exploitation and discovery (March, 1991). The exploitation of information technologies in supply chain applications refers to automated transactions (invoice, inventory management, etc.) between companies and suppliers. The use of information technologies for discovery purposes in supply chain applications refers to making unstructured transactions (market forecasts, coordination, integration, etc.) between companies and suppliers (Gu et al., 2020). The fact that the use of information technology takes an active role in the realization of



organizational learning indicates the existence of a relationship between organizational learning and information technologies in theory.

Establishing a smooth supply chain structure depends on the excellence of the coordination between the supplier-company-customer, which plays a role in the supply chain. Perfect coordination within the supply chain can be achieved by integrating the logistics activities between supply chain members. The logistic integration structure established between supplier-company-customer provides benefits to all actors involved in the structure in dealing with problems that disrupt the supply chain structure such as the whiplash effect (Geary et al., 2006) and taking necessary measures (Prajogo and Olhager, 2012). Stank (2001) mentions 6 integration dimensions in his study to determine the impact of logistics integration dimensions on Total Logistics Performance: *customer integration, internal integration, technology and planning integration, measurement integration and relationship integration*. *Customer integration* is to establish long-term and distinctive structures with customers. *Internal Integration* is the integration and harmonization of units in order to increase the performance of internal business processes (Fawcett et al., 2002). *Technology and planning integration* is the integration of information technologies used in the company and the establishment of integrated plan structures during the planning phase. *Measurement integration* is the integration of measurement techniques and practices determined for the evaluation of logistics activities. *Relationship integration* is the integration process that aims to bring together customer-company-supplier relations with common values (Stank, 2001). Contingency theory tries to explain the size, structure and strategies of organizations based on organizational factors (Donaldson, 2001). In supply chain management applications, the probability theory approach is applied in the establishment of the logistics and supply chain integration structure, in determining the situations where material and product flows are likely to encounter problems, and in evaluating the probabilities of encountering these situations (Flynn et al., 2016). Flynn et al. explain the uncertainties encountered in supply chain management as micro-level uncertainties, meso-level uncertainties and macro-level uncertainties. Probability theory in supply chain applications contributes to the establishment of a theoretical framework by taking uncertainties into account.

Delivery practices within the scope of supply chain management practices mainly refer to the development and implementation of different delivery methods suitable for different customer portfolios (Tucker, 1994). Khan et al. (2009) considers the dimensions of delivery applications under a total of 6 Dimensions. These dimensions are *collaborative distribution, order commitment, distribution flexibility, inventory management, information technology-supported distribution and transparency in the*

*distribution process*. Collaborative distribution provides the advantage of integrating distribution activities and other supply chain applications with an integrated and joint fulfillment advantage in distribution processes. In addition, reducing carbon dioxide emissions by preventing unnecessary vehicle movement (Danloup et al., 2015), use of inland waterways (Wiegmans, 2005) and optimization of distribution networks (Bahrami, 2002) provide advantages to companies with collaborative distribution. An early order commitment is described as pre-placing orders for products that need to be delivered between the company and suppliers. Calculating order cycles by taking into account customer flexibility as well as production flexibility in order commitment processes also increases the success level of delivery applications (Zhang and Tseng, 2008). Distribution flexibility plays an effective role in the formation of logistics flexibility of companies (Tosun and Uysal, 2016). Yu et al. (2013) explained that the relationship between logistics flexibility and relationship flexibility, which form distribution flexibility, and relationship satisfaction between firms, is significant and positively affected. In addition, they determined the factors affecting distribution flexibility as environmental uncertainty, bond structure strength and bond structure density. Inventory management is the management of all elements that affect the response times of orders received by the company in delivery applications. With the digital value provided by information and communication technologies, there have been some significant and gradual changes in the distribution channel structure (Agrawal et al., 2006). The realization of simultaneous transfer of information provided by Information Technologies plays an active role in the delivery of information related to the delivery, such as the current location of the delivery, delivery time, place of delivery, method of delivery in delivery applications. Transparency in the distribution process explains that the planning and implementation of the distribution and delivery processes are transparent and can be followed by all stakeholders. Network theory creates a mixture of strengths and weaknesses that meet supply chain needs to maximize supply chain performance (Ketchen Jr. and Hult, 2006). The need to establish successful network structures of distribution channels used in delivery applications is theoretically based on the foundations of network theory. Solution proposals can be developed by adopting a network theory approach in the implementation of delivery applications.

### ***2.3. Technological Innovation: Product and Process Innovation***

The concept of innovation basically describes the process of developing and implementing a new idea, product, process, or behavior in an organization (Damanpour, 1996). But it is also seen that the concept of innovation is conceptualized in the literature with different approaches. Meyer and Kraemer (1984) describe innovation in the form of providing

technological development in products and techniques and commercializing this development by addressing the concept of innovation with a technology dimension. Schumpeter (1992) defines innovation as the creation of new forms in financial or commercial organizations by considering it organizationally. Rogers (1995) expresses innovation as the generation and development of new ideas within new organizational structures. Damanpour and Aravind (2012) lists the broad framework of different approaches to innovation in the literature as product and process innovations, innovations in administrative and management processes, and innovations in organizational structures. Innovation classifications in the literature are continuous-discontinuous innovation (Robertson, 1967), instrumental-purposeful innovation (Damanpour & Gopalakrishnan, 1998), low-medium-high creativity innovation (Kleinschmidt & Cooper, 1991), and incremental-architectural-modular-radical innovation (Henderson and Clark, 1990).

Donbesuur et al (2020) divides innovation into two as technological innovation and organizational innovation, taking into account its impact on firm performance. Technological innovation is associated with changes in an organization's technical system or technical core that includes its primary business activities (Walker et al., 2015). Organizational innovation refers to new or significant improvements in the methods, procedures or routines of managing an organization, such as employee management, marketing, database management, allocation of responsibilities and managing external relations (Damanpour and Aravind, 2012). Technological innovation helps companies produce a variety of new products and services to achieve high performance and profit, while organizational innovation has a significant impact on the formation of technological innovation as a precursor to technological innovation (Camisón and Villar-López, 2014; Chen et al., 2019). Technological innovation deals directly with the customers or introduction of new products and processes for customers. Organizational innovation, on the other hand, defines the implementation of new and improved ideas and processes in the firm's workplace, such as management and marketing systems, to help reduce costs and create value for the firm (Chetty and Stangl, 2010).

Product innovation is the entry of a firm into the market with a new or significantly modified product (Un et al., 2010). Lau et al. (2010) explains that the most important innovation among innovations is product innovation and the company plays an active role in improving performance. Otero-Neira et al (2009) describe product innovation as improvements made to the company's product mix and new product development. They emphasize that product innovation is often seen in technology-oriented companies. The product innovation performance of

firms shows the degree to which a new product or service reaches market share, sales, return on investment and profit targets (Chen et al., 2014). Kotler and Keller (2009) explains that the new products introduced by product innovation will play an active role in the economic success of the companies and the social success of the consumers. In addition, product innovation provides advantages to companies in order to meet the needs of customers by offering new products and to gain competitive advantage over existing products (Kotler and Keller, 2009). The resource base view advocates that superior performance can be achieved by ensuring product innovation capability, and that the company can perform organizational learning to obtain new products with the organizational learning theory (Najafi-Tavani et al., 2018). In this context, it can be mentioned that resource-based views and organizational learning theories contribute to the creation of a theoretical infrastructure for product innovation applications.

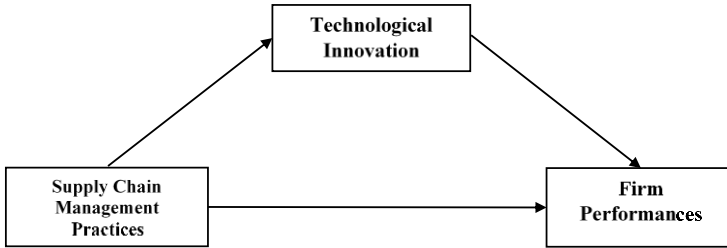
While product innovation practices ensure the realization of targets for the market and customers, process innovation focuses more on the improvement and innovation of internal processes (Aliasghar et al., 2019). Process innovation is defined as changes in organizational methods that lead to results such as higher quality or faster service delivery (D'Antone and Santos, 2016). From a supply chain management perspective, process innovation can lead suppliers to post-purchase innovation practices so that customers can improve their work environment and use human and financial resources effectively to improve their capabilities (Ashok et al., 2018). Figl and Recker (2016) describe process innovation as a creative problem-solving technique in which analysts generate appropriate and original ideas about how processes can be redesigned. They also noted that in order to achieve creative process innovation, it must be an original, unexpected, useful innovation and create concrete or abstract effects. These effects can also improve organizational effectiveness and responsiveness (Khazanchi et al., 2007). Process innovation, also referred to as advanced manufacturing technologies, is described as a series of advanced programmable manufacturing technologies that drive, monitor and connect the production process, including computer-aided manufacturing, flexible production systems, and computer numerically controlled machines (Lewis and Boyer, 2002: 101). The resource-based theory of vision and organizational learning theory, on which product innovation is based, are also accepted as the theoretical foundation of process innovation (Najafi-Tavani et al., 2018).

### **3. Method**

#### **3.1. *Research Model***

The research model of this study, in which the effect of supply chain management practices on firm performance and the intermediary effect of

product and process innovation on this relationship is tried to be determined, is presented in Figure 1. The hypotheses and hypothesis supports created within the scope of the research model are presented under subtitles.



**Figure 1: Research Model**

### **3.2. Hypotheses**

Successful supply chain management practices and effective supply and logistics activities among companies provide advantages to companies. A study conducted by Ince et al (2013) on industries operating in the Marmara region of the Republic of Turkey concluded that supply chain practices have a positive significant impact on company performance. In the study conducted by Youn et al. (2013) on manufacturing, electronics and communication, logistics and various industrial areas, it has been determined that environmentally friendly supply chain management practices have a significant positive effect on firm performance and environmental performance. In their study in leading manufacturing industries, Hong et al. (2019) concluded that supply chain quality management practices have a significant relationship on the innovation performance of companies, but not on their operational performance. Handoko et al. (2015) explained that the supply chain management practices of companies operating in Indonesia have a significant positive effect on both creating competitive advantage and increasing firm performance. In their research on companies operating in the manufacturing industry, Bayraktar et al. (2009) found that supply chain management practices have a strong and significant positive effect on operational performance.

It is known that strategic supplier partnership, which focuses on the management of supplier relations that are dealt with strategically in supply chain applications, has a significant effect on the financial performance of companies (Li et al., 2006). Gallear et al. (2012) concluded that supply chain partnership has a significant positive effect on firm performance in their study conducted in the sampling area of supply managers. Yeung et al. (2013) found that supplier partnership has a significant positive effect

on cost performance in the study of electronics manufacturers operating in Hong Kong. Salam (2015) found a positive significant relationship between supply chain collaboration and operational performance in a study conducted in FMCG companies (food and beverage). Considering the studies conducted in the literature on strategic supplier partnerships based on supply chain partnerships and collaborations, it is evaluated that it will have a significant impact on firm performance.

There is a significant relationship between strategic customer relations in procurement and logistics activities and organizational performance (Li et al, 2006). In their study examining the relationship between customer relationship management and firm performance, Haislip et al. (2017) explain that customer relationship management has a significant positive effect on operational performance. Reinartz et al. (2004) found in their study on companies operating in Austria, Germany and Switzerland that customer relationship management has a significant effect on economic performance. Valmohammadi (2017) determined the impact of customer relationship practices on organizational performance, product innovation and process innovation in manufacturing companies operating in Iran. According to the findings, customer relations practices have a significant positive effect on both organizational performance and innovation capabilities. Wu (2010) determined strategic customer relationship management as a business model that can be an important factor for quality, profitability and competitive advantage. Doyle (2012) concluded that integrated strategic customer relationship management plays an important role in ensuring quality service delivery.

Supply chain and logistics integration ensure the integration of logistics and supply activities of companies in supply chain management applications. Kim (2009) concluded in his study on companies operating in Korea and Japan that supply chain integration has a significant positive effect on firm performance. Stank et al. (1999) explains that with the integrated structure established between the departments of the companies, an effective communication network between the departments can be provided and the performance of the departments can increase. Gimenez (2006) explains the logistics integration structure of companies in the food industry operating in Spain in 3 stages. The first of these stages is the absence of an integrated logistics structure, the second stage is the existence of an intra-company logistics integration structure, and the third stage is the establishment of a logistics integration structure between supply chain members. Gimenez and Ventura (2005) explain that there is a positive correlation between intra-company logistics integration and inter-company logistics integration in supply chain management. It is expected that logistics integration will have a significant impact on

company performance, taking into account the contribution it makes to supply chain applications.

Information sharing provided by the use of information technologies between suppliers and companies increases organizational performance (Li et al., 2006). In their study on companies operating in the manufacturing industry in Malaysia, Vafaei-Zadeh et al. (2020) found that the use of information technologies has a positive significant effect on supply chain information integration, supply chain information integration, and operational performance. Bharadwaj (2000) found that there is a significant relationship between superior information technology ability and high profit return. Liu et al. (2013) points out that flexible information technologies and information technology exploitation of firms will increase their supply chain agility structure and exploitation capacity and thus firm performance will increase. As a result of their study on companies operating in China, Peng et al. (2016) concluded that information technologies significantly affect firm performance and supply chain management provided a significant intermediary effect on this relationship.

Delivery applications are among the logistics activities of companies, but this is the stage where the success level of the company is presented in the eyes of the customer. Fawcett et al. (1997) suggests that firms with strong delivery capability can meet market requirements, achieve customer satisfaction and build a positive reputation, thus achieving high levels of firm performance. Garrison et al. (2015) states that the use of cloud information technologies in delivery applications will increase the success of delivery applications and the performance of the company. Idris et al. (2013) points out that in order to make appropriate strategic decisions that can increase the performance of the firm, it is necessary to provide quality service to customers and to regularly evaluate the use of information technologies. Considering the strong relationship between supply chain management practices and firm performance in the literature, the H1 hypothesis formed within the scope of our study was formed as follows:

***H1: Supply chain management practices have a significant positive impact on firm performance in the manufacturing industry.***

The existence of the relationship between supply chain management practices and company performance is supported by studies conducted in the literature. The relationship between company innovation success and company performance success and the existence of innovation practices in supply chain management is also expected to have a mediating effect on the relationship between supply chain management practices and company performance. In their study of companies operating in different industrial

areas in Spain, Vazquez et al. (2001) show a significant relationship between the success status of innovation applied in the firm and the superior performance of the firm. Han et al. (1998) concluded that both technical and managerial innovation have a significant effect on firm performance in the study performed on banks 'sampling area. In their study examining the relationship between firm innovation levels and firm performance, Rubera and Kirca (2012) found that firms' innovation culture achievements and innovation output success have a significant impact on firm's market position, financial position, firm value and overall firm performance. Chege et al. (2020) investigated the effect of technological innovation on firm performance in SMEs operating in Kenya, and according to the findings obtained, they concluded that technological innovation success has a significant positive effect on firm performance. In their study of 140 production companies operating in Turkey, Bayraktar et al (2017) found that the innovation performance of companies has a significant impact on the company's performance. Wang (2018) found in his study of SMEs operating in developing countries that radical and incremental innovation, which he considered as part of technological innovation, has a statistically significant impact on company performance. The study Xu et al. (2019) conducted in 1112 manufacturing companies operating in China also revealed the effect of technological innovation on firm performance. Lii and Kuo (2016) explained that innovation focus has a significant effect on customer integration, supply integration and internal integration, and supply chain integration significantly affects firm performance.

Product innovation, which is among the sub-dimensions of technological innovation, plays an active role in increasing performance by providing new product advantages to companies. In their study on 856 companies operating in Korea, Lee et al. (2019) concluded that the companies' incremental product innovation success has a significant positive effect on firm performance success. Chege et al. (2020) found that product innovation has a significant positive effect on firm performance in their study in Kenya. In the sampling area of the companies in the automotive industry operating in Iran, Miterga et al. (2017) found that the ability to develop supplier relations has a significant effect on product innovation, and product innovation has a significant positive effect on company performance. Tajeddini (2016) explained in his study on SMEs operating in Japan that product innovation has a significant effect on firm performance and companies should turn to product innovation to increase firm performance. In their study on the CEOs of 132 companies operating in Finland, Laitinen et al. (2016) concluded that product innovation has a significant effect on firm performance.



Process innovation refers to the systemic innovations developed by companies to carry out their operations. Lee et al. (2019) also examined the relationship between process innovation and company success, and it was determined that process innovation has a significant positive effect on firm performance. Schniederjans (2018) investigated the mediating effect of radical and incremental process innovation between social quality management and supply chain performance in the study he conducted in manufacturing companies operating in the United States, and he observed that incremental process innovation has a positive intermediary effect, and that radical process innovation has a negative intermediary effect. Chege et al. (2020) concluded that the process innovation, which is considered as the sub-dimension of technological innovation, positively affects the performance of the firm. Al-Sa'di et al. (2017) found in a study on 207 manufacturing companies that information management has significant positive effects on product and process innovations and operation performance, process innovation has a significant positive effect on operational performance, and product innovation does not have a positive effect on operational performance. They also found that process innovation significantly mediates the relationship between knowledge management and operation performance. Ukpabio et al. (2017) show that process innovation is a critical element in increasing the performance of manufacturing companies in their study in 305 SME companies operating in Nigeria. Chang et al. (2019) found that process innovation has a positive intermediary effect on the relationship between operating system leverage and supply chain performance.

Considering these studies in the literature, it is evaluated that technological innovation has an intermediary effect between supply chain applications and firm performance. The hypothesis we have formed in this context is as follows:

***H<sub>2</sub>:** Technological Innovation in the manufacturing industry has an intermediary effect on the relationship between supply chain management practices and firm performance.*

### **3.3. Research scales and sampling**

In order to determine the effect of supply chain management practices on company performance and the intermediary effect of Technology Innovation, a sample area consisting of manufacturing companies operating in Bursa, Çanakkale and Balıkesir region in Turkey was selected. A total of 521 survey applications were sent to 67 manufacturing companies operating in the region in 2018 and the company's employees were requested to complete these surveys. As a result of the submitted survey application, a total of 322 successful surveys were obtained at a level that can also be used in research. As part of the

survey application, the respondents were asked about their gender, age, marital status and level of education. In addition, the supply chain management applications scale, technological innovation scale and company performance scales of variables in the research model created within the scope of the research were presented to the participants within the scope of the survey application.

Scale expressions of supply chain management applications has been obtained from the scale created by Chen and Paulraj (2004) and Li et al. (2006) and developed by Salhieh (2011). The supply chain management practices scale consists of 5 dimensions and 30 statements. These dimensions are Strategic supplier partnership (6 statements), strategic customer relations scale (11 statements), information technologies (5 statements), logistics integration (4 statements) and delivery practices (4 statements). Scale expressions of technological innovation were obtained from the scale developed by Prajogo and Sohal (2006) which was based on the criteria created by Avlonitis et al. (1994), Deshpande et al. (1993), Miller and Friesen (1982), Subramanian and Nilakanta (1996). The innovation scale consists of 2 dimensions and 9 statements. These dimensions are product innovation (5 statements) and process innovation (4 statements). Scale expressions of firm performance were created by Baker and Sininkula (1999) and Antoncic and Hisrich (2001) and obtained from the scale developed by Zehir et al. (2015). Firm performance scale consists of a single dimension and a total of 7 statements. The statements of the scales are presented in Annex-A. The 5-point Likert scale ("1" strongly disagree, "2" disagree, "3" undecided, "4" agree, "5" strongly agree) was applied in the supply chain management practices, technological innovation and company performance scale application implemented within the scope of the research.

## **4. Findings and Discussion**

### **4.1. Demographic Findings**

The frequency analysis results regarding the demographic characteristics of the participants are shown in Table 1. When the data in Table 1 are examined, 56.8% of the participants are men and 43.2% are women. When the education levels of the participants are examined, it is seen that 29.4% of them have higher education and 70.6% of them have education at the primary and secondary education level. When the marital status of the participants is examined, it is understood that 40.7% are married and 59.3% are single. When the age of the participants is examined, it is seen that 62.8% of them are 33 years old and under, and 37.2% of them are 34 years old and above. According to the data regarding the working years of the participants, the rate of the participants with a

working period of less than 10 years was determined as 24.5%. The rate of participants with a working period of more than 10 years is 75.5%.

#### 4.2. Findings Regarding The Scales

Before analyzing the data, normality tests were carried out and the results are shown in Table 2.

**Table 1: Demographic characteristics of the participants**

Gender	Number	%	Educational Level	Number	%
Woman	139	43,2	Primary Education	126	39,1
Man	183	56,8	Secondary	101	31,4
Total	322	100	University	89	27,6
Medeni Durum	Number	%	Graduate/Doctorate	Number	%
Evli	131	40,7	Total	100	100
Bekar	191	59,3	Working Year	Number	%
Age	Number	%	0-4	30	9,3
18-25	34	10,6	5-9	49	15,2
26-33	168	52,2	10-14	52	19,3
34-41	54	16,8	15-19	58	18,0
42-49	17	5,3	20-25	99	30,7
50 +	49	15,3	26+	24	7,5
Total	322	100	Total	322	100

**Tablo 2: Tests of Normality**

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
<b>SCMP</b>	,046	322	,094	,992	322	,079
Technological Innovation	,039	322	,200	,993	322	,139
Firm Performance	,042	322	,165	,990	322	,174

\* SCMP: Supply Chain Management Practices

According to the results of Kolmogorov-Smirnov and Shapiro-Wilk tests, it was analyzed whether the data were suitable for normal distribution or not. We hypothesized that there is no difference between the distribution of existing data and the normal probability distribution. Our hypothesis was rejected by both tests. According to the KS test;  $p > 0.05$ , and according to the S-W test;  $p > 0.05$ . Our data meet the normal distribution condition.

##### 4.2.1. Scale Validity and Reliability Analysis

“Reliability of a scale is related to random errors in the scale, and systematic error in the scale structure does not affect reliability. Reliability coefficient is the expression of the degree of reliability with a number “(Can, 2013). When the coefficients are examined, if  $0.60 < \alpha < 0.80$ , the

scale is quite reliable; If  $0.80 < \alpha < 1.00$ , the scale is highly reliable (Tutar & Erdem, 2020).

**Table 3: Reliability Analysis**

Scales	Items Number	Reliability Coefficient ( $\alpha$ )
SCMP	30	,841
Technological Innovation	9	,839
Firm Performance	7	,798

Kaiser Meyer Olkin (KMO) and Bartlett tests were applied to the data for validity analysis. The KMO test tests the adequacy of the sample from which the data set was taken, and the Bartlett test tests that the correlation matrix is different from the unit matrix.

**Table 4: KMO and Bartlett's Test**

		SCMP	Technological Innovation (TI)	Firm Performance (FP)
<b>KMO Sampling Adequacy Measurement</b>		,852	,833	,785
<b>Bartlett's Test of Sphericity</b>	<b>Chi square Approach</b>	5442,100	1131,572	717,386
	<b>Degrees of freedom</b>	435	36	21
	<b>Significance Level</b>	,0001	0,0001	0,0001

KMO values between 0.5-1.0 are considered acceptable. As a result of the tests, KMO values for the variables were found to be quite high, and Bartlett's Sphericity Test results were significant for all three variables ( $P < 0.05$ ). According to these results, the sample is sufficient for analysis.

#### **4.2.2. Tests Of Hypotheses**

Correlation analysis is an analysis method used to determine the severity of the relationship between two variables measured at interval and ratio levels (Altunışık et al. 2012: 128). According to what is given in Table 5, it is seen that there is a relationship of 0.367 with innovation and supply chain management practices. There is a 358 percent relationship between supply chain management practices and performance. However, there is a relationship of 0.320 between technological innovation and performance.

**Table 5: Correlations**

		TI	SCMP	FP
<b>TI</b>	Pearson Correlation	1	,367**	,320*
	Sig. (2-tailed)		,000	,032
	N	322	322	322
<b>SCMP</b>	Pearson Correlation	,367**	1	,358**
	Sig. (2-tailed)	,000		,000
	N	322	322	322
<b>FP</b>	Pearson Correlation	,320*	,358**	1
	Sig. (2-tailed)	,032	,000	
	N	322	322	322

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

When determining the mediating effect on a dependent variable, 4 conditions must be met. The necessary conditions for the mediation effect are examined under 4 titles in this study. However, in the method of Baron and Kenny (1986), it was stated that three conditions should be met when determining the mediation effect and it was examined under two subtitles as the 1st part and the 2nd part in the third condition (Yıldız, 2020: 123). First condition: the independent variable must have an effect on the dependent variable. Second condition: the mediator variable must have an effect on the dependent variable. Third condition: the independent variable must have an effect on the mediator variable. Table 6 shows the analysis results showing that these three conditions are realized.

**Table 6: Regression Analysis**

	Independent variable	Dependent variable	R	Adj. R <sup>2</sup>	Beta	Std.Error	F	P
<b>Condition 1</b>	<b>SCMP</b>	<b>FP</b>	,358	,126	,342	,050	47,138	,0001
<b>Condition 2</b>	<b>TI</b>	<b>FP</b>	,320	,100	,164	,027	36,616	,0001
<b>Condition 3</b>	<b>SCMP</b>	<b>TI</b>	,367	,132	,685	,097	49,794	,0001

The fourth condition is that when the independent variable and the mediator variable subjected to the analysis are inserted into the model together, the effect of the independent variable on the dependent variable should decrease or disappear completely. If the effect decreases, it is

mentioned about partial mediation effect, if the effect is completely eliminated, full mediation effect is mentioned (Yıldız, 2020: 123-124). Regression analysis results for the fourth condition are given in Table 7.

**Table 7: Mediation Effect**

	Independent variable	Dependent variable	R	Beta	Std.Error	t	P
Condition 4	SCMP	FP	,347	,223	,059	3,816	,0001
	TI			,170	,031	2,815	,0001

There is a statistical relationship between supply chain management practices and firm performance ( $R = 0.358$ ,  $R^2 = 0.126$ ,  $P < 0.05$ ), the variable of supply chain management practices explains 12.6% of the change in firm performance. Therefore, the **H1 hypothesis** was supported. In addition, one-unit increase in supply chain management practices causes an increase of 0.342 standard deviations on firm performance. (= 0.342). The first condition is provided for the mediation effect.

According to the regression analysis, there is a statistical relationship between the innovation variable and the firm performance ( $R = 0.320$ ,  $R^2 = 0.100$ ,  $P < 0.05$ ), the innovation variable explains 10% of the change in firm performance. On the other hand, a one-unit increase in innovation causes an increase of 0.164 standard deviation in firm performance. (= 0.164). Therefore, the second condition for the mediation effect is provided.

It is seen that there is a statistically and significant relationship between supply chain management applications and innovation, and that supply chain management applications have a significant effect on innovation ( $R = 0.367$ ,  $R^2 = 0.132$ ,  $P < 0.05$ ). Supply chain management practices variable explains 13.2% of the change in innovation. In addition, a one-unit increase in supply chain management applications causes an increase of 0.685 standard deviations on innovation (= 0.685). In this case, the third condition for the mediation effect is satisfied.

The result of the regression analysis made to test the fourth condition for the mediation effect is shown in Table 7. According to what is given in Table 7, firm performance is accepted as dependent variable, and SCMP and Innovation are accepted as mediator variables. When the regression analysis is repeated by including it in the model together, the independent variable is at the significance level of  $p < 0.05$  and the beta coefficient decreases. Therefore, technological innovation has a partial mediating

effect on the effect of supply chain management practices on firm performance. **H2 hypothesis** was partially supported.

## 5. Conclusion and Recommendations

There are many studies in the literature that indicate the existence of the relationship between supply chain management practices and firm performance (Bayraktar et al., 2009; Youn et al., 2013; Ince et al., 2013; Handoko et al., 2013; Hong et al., 2013). Likewise, it can be mentioned that there are many studies examining the relationship between the innovation success levels of companies and company performance (Han et al., 1998; Vazquez et al., 2001; Rubera and Kirca, 2012; Bayraktar et al., 2017; Wang et al., 2018; Xu et al., 2019; Chege et al., 2020). In this study, our main purpose is to determine whether technological innovation has an intermediary role while examining the effect of supply chain management practices on firm performance. As a result of our research, it is seen that technological innovation partially mediates the relationship between supply chain management practices and firm performance. Considering this finding we have obtained, it is seen that the development of supply chain management applications and the development of a management approach based on new ideas will support the increase of firm performance.

Product innovation, which is the sub-factor of technological innovation, gives companies a competitive advantage. It is expected that new products will be created that will support the efficiency of activities in the supply chain in order to improve the supply chain management with product innovation practices. Especially with the creation of new products such as new vehicle tracking systems developed with information technologies, inventory tracking systems, new storage systems, and material handling vehicles, an effective supply chain structure can be created by improving the supply chain flow. This situation supports that product innovation will create competitive advantage for companies by strengthening the supply chain and will also affect the company performance.

Supply chain activities are considered as a holistic process consisting of various processes. Process innovation, which contributes to the improvement and development of these sub-processes and the overall process, contributes to the change of traditional procurement process approaches. The creation of new ideas in business and delivery processes and the acceleration of supply activities also increases the efficiency of the supply chain. This situation also contributes to the company performance by supporting the successful procurement and delivery of the company.

Based on the findings we obtained within the scope of the study, company managers are expected to focus on product and process innovation to increase supply chain efficiency and company performance.

It is recommended that they use technological innovation to improve new product development and processes in order to increase the efficiency of their supply chain activities. In addition, it is important to take and adopt technological innovations developed by the environment and competitors. This approach can play an active role in integrating technological innovation into supply chain applications.



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