

CURRENT MARKETING STUDIES AND DIGITAL DEVELOPMENTS

EDITOR
ASSOC. PROF. DR. SELDA ENE

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Current digital changes and developments have been constantly taking place in the marketing studies and strategies. Thanks to developing technologies with digital economies- Industry 4.0 and innovative approaches, global businesses using a modern marketing approach are trying to discover ways to better understand consumers to increase the success of their brands. The changing demands of consumers, businesses in many sectors where there is intense competition must choose to follow these digital developments and current marketing strategies. The dynamism provided by digital development and marketing strategies on communication provide many advantages to many companies to do their best in terms of marketing their products or services as well as 'establishing an effective relationship with customers, cross-border e-commerce, digital marketing, creating new products and innovative brands, increasing corporate reputation, conducting market research and evaluating feedback from customers'.

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Editor

Assoc. Prof. Dr. Selda Ene



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PREFACE

Dear Readers,

Current digital changes and developments have been constantly taking place in the marketing studies and strategies. Thanks to developing technologies with digital economies- Industry 4.0 and innovative approaches, global businesses using a modern marketing approach are trying to discover ways to better understand consumers to increase the success of their brands. The changing demands of consumers, businesses in many sectors where there is intense competition must choose to follow these digital developments and current marketing strategies. The dynamism provided by digital development and marketing strategies on communication provide many advantages to many companies to do their best in terms of marketing their products or services as well as ‘establishing an effective relationship with customers, cross-border e-commerce, digital marketing, creating new products and innovative brands, increasing corporate reputation, conducting market research and evaluating feedback from customers’.

Especially in the present day, when digital developments, cross border e-commerce with globalization 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 includes digital developments and current marketing studies, consists of 7 chapters. This book titled “Current Marketing Studies and Digital Development”, prepared by publisher Livre de Lyon, includes studies in the field of marketing. We hope that the studies on current marketing in the book will contribute to the literature and businesses, shed light on future studies. We would like to thank our authors who contributed to the creation of the book with their valuable and original works, our referees who meticulously evaluated the works and everyone who contributed to the creation of this book and we wish the book to be beneficial.

Best regards,
Assoc. Prof. Dr. Selda ENE

CONTENTS

Preface		iii
Chapter 1	Neuromarketing Practices and Their Role in Affecting Consumer Behavior	1
Chapter 2	A Research on The Ethnocentrism Trends of Consumers and Compulsive Buying Behavior in The Context of Demographic Characteristics	33
Chapter 3	The Place of Digital Marketing in The Hospitality Sector: A Review for Cappadocia	59
Chapter 4	Cross-Border E-Commerce (E-Export) Methods and Problems Encountered	73
Chapter 5	Exploring Perceived Risks Towards Self-Service Parcel Delivery Usage	97
Chapter 6	An Overview of Fear of Missing Out Strategies Implemented By Brands	117
Chapter 7	A Research on Safflower (Carthamus Tinctorius L.) in The Vegetable Oil Market and the Future of Safflower in Turkey	135

CHAPTER 1

NEUROMARKETING PRACTICES AND THEIR ROLE IN AFFECTING CONSUMER BEHAVIOR

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1. INTRODUCTION

Marketing is an aggregate of the development, pricing, retention and distribution of products, services and ideas in order to align with customer requests and needs in a dynamic market environment and to develop and maintain good relations with stakeholders (Mucuk, 2009, p.5). The marketing department is recognized as one of the most important departments because it increases the efficiency and productivity of sales and purchasing, the profitability of the business, and serves as a bridge between the business and its customers.

Thanks to developing technologies with digital economies (Industry 4.0) and innovative approaches, businesses utilizing a modern marketing approach are exploring ways to better understand consumers in order to increase the success of their brand. Presented as an alternative to marketing insights and strategies with technology innovation and digitization, 'neuromarketing techniques' break ground on modern marketing world and they are few of the new techniques that can be used to better know and serve your consumers. Neuro-

marketing develops a common language in understanding customer requests and needs for sales and marketing, creating an environment in which they can constantly communicate.

‘Neuromarketing’ is a new branch of marketing that bridges the science of neurology and consumer behavior and helps to measure the subliminal emotions that trigger the purchasing behaviors of consumers by using various scientific applications and to use the results in marketing strategies (Morin, 2011, p.131). Neuromarketing, approaches consumer behavior in terms of brain and subconscious. As is known, “95 percent of thinking occurs in the subconscious; the subconscious is a mix of all of those magnificent memories, feelings, thoughts and other formations of understanding that we are not aware of or cannot express” (Kagan, 2002, p.17). Therefore, the fact that businesses reveal what consumers are subconsciously thinking as well as what they are saying through marketing research will increase their success and allow them to better understand and serve them better.

Along with the new technologies developing with the digital economy and the innovative approaches they apply in marketing, businesses can be located in the immediate vicinity of consumers with their products and brands. In the globalizing and ever changing world, the businesses utilizing neuromarketing techniques in marketing studies will enable them to “understand what consumers really need, not just what they want” and therefore it will be easier for the businesses to serve their customers and to improve customer satisfaction and loyalty.

2. NEUROSCIENCE, BRAIN STRUCTURE AND WAY OF THINKING

The word neuroscience comes from the French word ‘neurologie’. It can be translated as neurology. The diseases related to neural system in the human body are called neurological diseases. There are many identified neurological diseases that are common among the public, but they are usually scarce (<https://www.cnnturk.com/>, 2018). Neurology is a field of medicine related to the anatomy, physiology and emerging diseases of the nervous system. The nervous system is a very complex system. The study of the nervous system, elucidation of its various functions and its use in various fields have become increasingly common in recent years(<https://www.sabah.com.tr/>, 2018.) Neuroscience is a

branch of science that takes priority over the study of the nervous system. Traditionally, neuroscience is considered a branch of biology. Thanks to neuroscience; motor control systems, sensory systems, learning, memory and basic sciences and behavioral sciences such as psychiatry, can be conducted in many areas. As a result of the fact that many events that were thought to have occurred behaviorally in the past are actually related to the nervous system, it is thought that neuroscience will be very popular in the next century, and various positive predictions are made on this issue (<https://designneuro.com/tr/blog/>, 2018).

Beginning in the early 2000s, neuroscience research, which has been quite frequently used in marketing research, has led to the formation of a new field defined as “consumer neuroscience or neuromarketing” (<http://www.acikbeyin.com.tr/>, 2019). A topic of interest to neuromarketing is the field of neuroscience that studies consumer behavior.

Emotions, thoughts, memories and experiences are all originated from the brain, which is a neural tissue. The identity of humanity is hidden in the intricate patterns of electrochemical pyrexia of the brain. Consumer behavior, character, and structure are also shaped according to the brain that is formed by neurons having this complex structure (Eagleman, 2015, p.7). It is open to development throughout life through continuous learning and experience.

The most important feature that distinguishes human beings from other living species is that the human brain does not appear to possess the circuits of everything and it has the ability to adapt to the environment in which it is located. The human brain is open to constant remodeling with the details of its vital experiences, gradually leading to adapt to the environment. It has a flexible structure in the face of life and in the face of new developments and it develops the ability to adapt. The secret to flexibility in the human brain is not relevant to cell count and cell formation, because the number of brain cells is the same in children and adults. The secret to explaining the difference lies in the way these cells bind together and how they bind.

The human brain is connected with neurons (nerve cells) and the number of neurons increases with increasing learning. A newborn's neurons, depending on the emotional connections and information they receive, connect very quickly within the first two years and form two million new connections (synapses) per second. After two years the number of synapses in the baby exceeds 100 trillion

and the number reaches twice that of an adult. So the brain reaches its peak in capacity and is able to make more connections than it needs. After that point, as much as 50 percent of the synapses will be pruned and eliminated in later age, which will replace the new connections of the brain with another strategy known as neural pruning. Depending on their experience and environment, useful synapses become stronger, while useless ones are disabled and unused connections are lost (Eagleman, 2015, p.9-11).

In an adult who has reached the age of 25, the brain transformation has finally completed its development. But the brain continues to develop in adulthood. Lifelong learning continues. Our cultural environment, family environment, friends, work life, every movie we've watched and every conversation that has taken place have left their mark on our nervous system. So these microscopic traces, which are permanently formed, accumulate over time, forming the whole that will make a person human, and as a result, they place limitations on how he will turn into someone.

Consumer behavior also develops by learning in the society in which it is located, new products and services begin to be used with the cycle of habits that occur, and then the habit is formed and they continue to be used consistently (Duhigg, 2012).

The "Three Siblings Theory" developed by US neuroscientist Paul MacLean in 1978, examined the complex working structure of the human brain and explained the working system. MacLean described three layers of brains developed one after the other and associated this trio to three siblings living under the same roof (MacLean, 1990; Quoted: Batı and Erdem, 2015, p.89-90):

- 1- *Neocortex*: Although the smallest of the siblings, it is the Neocortex structure, spread over the widest area. This layer deals with complex analysis, can use language, compose and is the manager. The three-four millimeters of the outer surface of the cortex is completely covered with neurons. The communication network in the brain is realized mostly through this cortex.
- 2- *Limbic System*: It feels deeply and is the emotional area. In addition to controlling emotions, it enables to learn new information and to remember them. It regulates stimuli coming from the environment in our brain and plays an important role in balancing the body and the environment. It tries to keep the balance between two siblings. It inhibits the dominance of the eldest brother, serving as a source of nutrition.

- 3- *Midbrain (Reptilian Brain – Primitive Brain)*: It is the oldest of the siblings. It regulates our daily movements, is responsible for maintaining life, providing food, disposing of waste and general safety. It is responsible for the storage of information and the functioning of our muscular system. It is the sole decision maker. (Renvoise and Morin, 2007, p.5).

The primitive brain is the oldest brain, 450 million years old, that has existed since the day mankind was created, taking on the task of survival. But given that humanity can only communicate by talking for 40,000 years, writing for 10,000 years, it is difficult to understand the primitive brain with relatively newer methods. In order to communicate with the primitive brain, you need to be able to speak the language that it speaks and to address it because it is effective in decision-making, and it is the master (Öztaş, 2012) (<http://www.zihinselpazarlama.com/>,2012).

Because the primitive brain is 45,000 times older than written words, written words did not possess enough time to affect the primitive brain. So what needs to be done is learn to speak a whole new language to motivate and inspire the primitive brain. Renvoise and Morin aimed to shed light on marketers by combining the latest research on this characteristic and structure of the brain with sales, marketing and communication techniques (Renvoise and Morin, 2007).

3. CONSUMERS' THINKING STYLES AND THEIR IMPORTANCE IN TERMS OF MARKETING

Marketing research methods have been trying to predict and explain the impact of advertising campaigns for centuries. But traditional methods often achieve unsuccessful results in this regard, which has led the companies using the incorrect product and marketing strategies. There is a famous saying on this subject, said by American entrepreneur John Wanamaker, who lived between 1838 and 1922: “*Half the expenditure on advertising is wasted. The problem is that you can't know which half of it is wasted.*” (<https://eksisozluk.com/john-wanamaker-234542>, 2002). The fact that digital media is so advanced today contributes to a better understanding of this fifty percent; however, it is insufficient to explain why half of advertising budgets are wasted.

Because emotions take up a large amount of space in the process of consumers perceiving the messages, it is very difficult to understand and model rational responses. Face-to-face interviews, surveys, focus group studies remain

superficial and generally do not contain any emotion. Usually, when the message is delivered to the consumers, it is not known what they have experienced in the past, what the messages may mean to them; so the consequences remain unfruitful. A brand message can create completely different meanings in different consumers and trigger different behaviors, encouraging the consumers to buy or causing them to quickly move away from it. Because human beings are not rational, but emotional-thinking beings, and these emotional values are values that lie in the subconscious, which the consumers in general are not even aware of themselves. Another reason for this is that consumers willingly tell researchers the answers they know to be correct for the sake of not being an outcast in social life. The most important proof of this is the fact that, after marketing studies, 80% of the new products offered to the customer fail (Morin, 2011, p.132-133).

Traditional research methods can vary depending on a particular person's current mood, time constraints and even environmental factors. Neuro-imaging techniques, on the other hand, can shed light on what sections of the brain the message is perceived by, why it succeeds or fails. Realizing that the large role that the consumer's subconscious plays in buying has been ignored, some marketers have embarked on new pursuits, and thus neuromarketing research has emerged has become widely used.

Gerald Zaltman, in interpreting consumers and their way of thinking, mentioned mistakes made by experts and issues that need attention (Zaltman, 2003, p.33-34):

- *Contrary to popular belief, consumers do not think too much when making decisions*, of course, they measure and evaluate the value that they will provide for themselves, how they will meet their needs, but this reasonable way of thinking does not adequately explain how consumers decide. "However, the selection process is highly automatic; caused by habits and other subconscious forces, and is greatly influenced by the social and physical state of consumers" (Lowenstein, 2001, p.499).
- *Emotions are the first force that affects the way you think and behave*. For example, the smell of a product or music playing in the store activates the emotional area in the brain and the person can determine a very positive or very negative approach to the product from that point on. Because smell or music evokes certain memories in the consumer and causes a direct connection between

them and the product. If the targeted sales figure is not reached, it is not possible to understand what the reason is and therefore it is necessary to study the work capacity of the brain (Zaltman, 2003, p.33-34).

- *Ninety-five percent of thinking occurs in the subconscious; the subconscious is a mix of those magnificent memories, feelings, thoughts and other formations of understanding that we are not aware of or cannot express*” (Kagan, 2002, p.17). The belief that consumers consciously realize all their thoughts is not accurate.

“In fact, emotions by definition are already in the subconscious. To bring them to the surface, special techniques of skilled researchers are needed” (Damasio, 1999, p. 3-5).

- *The truth may be different from what is said.* For example, when people are asked “why do they prefer the expensive chocolate brand,” people can say that they “buy it as a gift for their friends.” However, the real reason may be very different from the reasons for choosing this brand at that particular moment. In fact, most people will want to buy this expensive brand for their own consumption needs. The reasons for this brand preference effecting a person’s states of crime or joy, are beyond their answer to the question asked at the level of consciousness and it is necessary to examine the reasons that lie in the subconscious beyond the level of consciousness. Thus, this will require the services of talented interviewers. It seems that consumers’ behavior and thoughts, which they are not aware of or cannot express, are formed in a much different way than the marketers think (Zaltman,2003, p.35-37).
- *Words are of course very important in communicating thoughts, but they are insufficient to reveal the whole picture.* People don’t usually think with words. For example, brain scans and other physiological function measures show that; the activities between brain cells and the subconscious comes before our conscious awareness of any thought and brain activity involving verbal language (Zaltman, 2003, p.40).
- *Consumers cannot understand the message in a simple way.* They think and perceive this new knowledge by associating it with “the stories and recognitions of businesses, the experiences they gather

from their old operations and even the image of their brands” and blending them all together (Zaltman, 2003, p.40-41). According to the results, consumers can interpret the message they receive in a much different way than what businesses want to convey. Why consumers perceive given messages differently cannot be revealed by utilizing the question and answer method; for this purpose, the functions of the subconscious must be examined. The role of the subconscious in consumers’ buying behaviors is of considerable importance. For this reason, neuroscience research in marketing research to study consumer behavior is a new technological development that has been implemented since the early 2000s. Consumer neuroscience, or neuromarketing, is an important benefit in revealing the extent to which the subconscious mind is effective in consumer behavior.

The century in which we live in, together with magnificent developments in communication technologies, is the age of chaos, moving through highly dynamic systems and interconnected variables. Most importantly, the logic of mankind in this age is fuzzy. Fuzzy logic differs from classical logic and is not very open to inquiry. The most important issue in fuzzy logic is how to activate the brain. In order to achieve the best results, it is necessary to use egocentric messages, contrasts, embodiments and other brain variables that can keep the brain under control. In order to influence the brain’s decision-making mechanism, it will be necessary to address the primitive brain. As a result of studies conducted on the functioning of the primitive brain, it was found that in addition to controlling stimuli from the neocortex and limbic system, it was also sensitive to six types of stimulating messages (Batı and Erdem, 2015, p.151-152).

The six stimuli that address and activate the primitive brain have been identified as:

**Primitive brain is egocentric because it doesn’t empathize, it only reacts to things that are meant to survive. It is the task of the intermediate and superior brain to empathize or act by thinking within the framework of logic. So the majority of the messages that the marketers will give should be about consumers, not about themselves, because in order to get their attention, they need to hear what you can do for them (Renvoise and Morin, 2007, p.8).*

**In order to understand and bring the consumer to the decision-making stage as soon as possible, contradicting statements should be used, not neutral. It is nec-*

essary to prepare the brain for perception of the signal by giving the consumer old information first (Renvoise and Morin, 2007, p.9).

**In order to address the primitive brain, it is necessary to use words that are easy to understand and contain more concrete data.* For example, ‘more money’, ‘unbreakable, incorruptible’, ‘raise after two months’, ‘result in 24 hours’ (Bati and Erdem, 2015, p.153).

**The primitive brain likes beginnings and endings.* If people can easily engrave situations that have a strong beginning and end, they will not spend much energy to hide the areas in the middle, because they do not think that this part carries necessary or crucial information about the situation. When marketers want to reach the consumer, they should give important information first, arouse interest and expectation, and highlight important information again at the end, taking into account that the middle part of the message will be ignored.

**Various scientific studies reveal that “in the right lobe of the brain, functions such as rhythm, imagination, colors, size, volume, music are performed. In other words, the right lobe forms the artistic side, deals with the whole of the picture rather than small details, processing information with shape and imagination”* (Renvoise and Morin, 2007, p.11)

Also, the right lobe is influenced by emotions and dreams and its ability to learn is photographic, i.e. holistic. For this reason, it is understood that the right lobe, unlike the left lobe which processes information in sequence, is much faster and more effective in learning. Einstein has a famous saying about this: “The left brain is a loyal servant and the right brain is a sacred gift” (<http://arsiv.zaman.com.tr/2003/06/12/yorumlar/>, 2003).

Because visual stimuli are processed and perceived in the right lobe of the brain, the process of consumer awareness will be faster; the process of reaching the consumer’s brain and encouraging them to buy will be faster when visual stimuli are used. In order to evaluate this sacred gift, it is necessary to first understand it thoroughly and then develop studies for it. The science of neurobiology, especially recently, has brought more clarity to how emotions work. According to these findings, emotions create electrochemical reactions in the brain and these reactions directly affect the way people process and store information. The superior brain’s processing speed is slower, while the primitive brain’s is faster and works depending on visual stimuli and reacts much faster. Visual nerves, which work connected to the primitive brain, work 40 times faster than hearing nerves (Bati and Erdem, 2015, p.153).

**Because the primitive brain is only activated by emotions, it is necessary to call out their feelings, or even use their emotions, so that consumers can easily*

remember messages. (Renvoise ve Morin, 2007, p. 12). As Antonio Damasio said “We are not thinking machines that feel, we are feeling machines that think.”

Renvoise and Morin identified these six stimuli that the primitive brain responds to, in order to convince those in the sales and marketing industry, and created a four-step sales action plan consisting of these. In carrying out sales and marketing activities for customers together with neuromarketing, four basic steps are followed (Renvoise and Morin, 2007, p.155):

- Customer’s grievances should be identified (not just their desires, wishes or needs).
- The claims of the business should be differentiated (more concrete than positioning).
- A gain should be presented to the customer (the value proposition must be proven to be the heart of sale)
- The message should be transmitted to the primitive brain (it should be acted in a way that helps people understand and makes them decide.

In general, 90 percent of a person’s behavior is formed subconsciously. 80 percent of purchasing decisions are shaped by emotional data. In purchasing decisions shaped by emotional data, the contribution of all five senses to the brain’s perception process is crucial. The five senses that drive consumption’s purchasing feelings work as follows:

- One of the most effective ways to call out to the *visual sense* is the use of color. The most important rule of being a brand is that it can be recognized by logo or color without the need for any name. In an experiment, Linderstrom gave each of the 600 women he invited to a salon a blue Tiffany box, and found that the heart rate of the women who took the box rose by 20%, even though the boxes were empty. Women have been able to experience this excitement only with a color that expresses it, without seeing the brand’s logo or product. Again, another study found that color can increase brand awareness by up to 80% (Linderstrom, 2010, p.150-151).
- *Sense of smell* is a system whose importance has not yet been fully perceived, but which is very useful in terms of brand awareness, especially when presented with visual reminders. Because all

sensory systems, except smell, reach the brain through a long and winding way. Smell reaches directly into the brain's emotion and memory centers. Professor Pam Scholder Ellen says: 'When we use all our other senses, we think before we react, but when it comes to our sense of smell, our brain reacts without thinking (<http://www.nytimes.com/>, 2007). Despite this, more than 50% of the brain is allocated to visual senses, while olfactory senses use only 1%. For this reason, it is very difficult to reach this 1% segment and to catch the senses that can take place with smell in the consumer's memories, but if it is caught, it leaves a long-term effect on the memories of the consumers because it directly reflects on the brain.

Smell is recorded in episodic memory, which is recollection memory. Episodic memory contains recollections and memories of individuals and events that are significant to people are stored in this memory (<http://www.egitimpsikoloji.com/bellek-turleri.html>, 2012). Therefore, when exhibiting the products of brands, marketers should prefer fragrances that are directly proportional to the style of the product, the positioning and the story of the brand. In this case, neuromarketing techniques are considered; as a result of experiments with these techniques, it is necessary to test people are sensitive to which fragrances for certain products.

Sense of taste is one of the most beautiful senses bestowed upon mankind, giving happiness and energy to man. But since each person's taste senses can be different, it is quite difficult to offer a common flavor that everyone can like.

Another way to give the consumer a taste of the product is to promote the product, especially in supermarkets. The product is offered as a promotion and if it is liked, the person makes the purchase. Food products are tested and their performance is measured by presenting them to many people before they are presented to the market. But despite this, it seems that dozens or even hundreds of products are withdrawn soon after they are presented each year. Because people's feelings of taste are also directly proportional to their current motivation. A person may like a product very much or not like it at all for different reasons during the experiment. In order to investigate these causes and to achieve clear results, neuromarketing techniques are again needed.

- ✓ *The sense of hearing* basically serves to make interpersonal communications, but beyond these formalities; hearing allows people to create deep and nostalgic memories of highly emotional moments.

Another situation in which the importance of hearing is emphasized is the tempo of music played in markets, stores and restaurants. Some businesses prefer fast-paced music in the area, while others prefer slow-paced music to increase sales. For example, fast-paced music is often preferred in fast food restaurants. An experiment was conducted to investigate the cause of this, and the following results were observed: “Milliman tested the hearing of consumers with an experiment conducted in the ambiance of the store. In-store traffic was observed, and with slow-tempo music, there were both a 17% slowdown in traffic in-store and a 38% increase in sales. Milliman later repeated this experiment in the restaurant and observed that with slow-tempo music, customers stay in the restaurant much longer than in fast music. But he found that they did not spend more money to buy food. Customers have been observed to spend extra time chatting. In addition, because the tables emptied more slowly with slow music in the restaurant ambiance, customers waiting for tables spent more money at the bar (\$21 was spent with fast music, \$30 was spent with slow music)” (Kutlay, 2007, p.46). Research results show that in environments where the tempo is used correctly according to the store ambiance, customers were positively affected and spent more time in the area. Another study on the effect of music in the store concluded that music partially positively affects the time that customers with low income levels stay in the store (Kirkbir et al., 2013, p.54).

- ✓ *The sense of touch* is the sense that increases interpersonal communication and helps people connect more with each other. The need to touch or be touched depends on the culture in the country in which the individual lives, or on the individual’s own character. Some people like sensual contact, while others hate it. So store employees should be very conscious and careful and be able to maintain their boundaries, especially when it comes to interpersonal contact.

Another issue that requires neuromarketing research related to the sense of touch is related to online purchases that are becoming more and more common today, but still not preferred by some consumers (<http://sosyalmedya.co/>, 2012).

In order to obtain a solution for this, and for those who abstain from virtual shopping for this reason, neuromarketing studies should be carried out.

4. EMERGENCE AND WIDE SPREAD USAGE OF NEUROMARKETING

Neuromarketing is a new marketing branch that helps bridging the purchasing behavior of consumers and consumer behavior that triggers the measurement of unconscious emotions using various scientific applications of the results to be used in marketing strategies that helps a new marketing branch (Morin, 2011, p.131). In short, it can be summarized as follows: neuropsychology in psychology is the same as neuromarketing in marketing. Neuropsychology studies functions between the brain and human, while neuromarketing approaches consumer behavior from the point of view of the brain and subconscious.

In order to solve the problems that arise in marketing strategies that show negative progress, neuromarketing applications that are not only based on the answers of consumers, but also measure unconscious responses have become more common, as well as traditional methods. The use of neuroscience applications that are developing today in combination with marketing applications helps to understand consumer behavior in the most accurate and clear way. In the event that sales and marketers cannot determine the reasons why they cannot reach the sales figures they target despite all marketing research and advertising work, the need for neuromarketing techniques increases. Thanks to this branch of science, which is becoming increasingly important, it is aimed to reveal the subconscious thoughts, feelings and desires that guide the purchasing decisions that people make in all aspects of life.

The concept of neuromarketing was first emerged in late 90s by Gerry Zaltman, a Harvard University professor, when he announced that he was using the “functional magnetic resonance imaging device (fMRI)” in marketing research. Professor Ale Smidts was the research scholar who later brought these studies into question, put them in literature in 2002 and expressed them as the concept of neuromarketing (Lewis, 2008) (<http://www.drdaavidlewis.co.uk>, 2015).

The term neuromarketing first appeared in 2002 and has been investigated by several American companies, such as BrightHouse and SalesBrain. Justine Meaux, a strategist at BrightHouse, said: “We have learned more in the last 10

years than we have learned before. I think neuromarketing research will open a whole new page in the business world,” he said. Since the early 1950s, the only way to understand which ads, products, and brands consumers like, has been to question consumer behavior by conducting focus group interviews. But the answers people gave and the results could contradict with what they said. For this reason, the need for a more reliable solution has arisen. The first research was conducted at Medicine University in 2003 using functional magnetic resonance imaging (fMRI) regarding Pepsi and Coca Cola consumption in a focus group.

Pepsi Cola executives wanted to create a new experimental environment and prove and show how much Pepsi is preferred. Known as ‘Pepsi’s Challenge’, they launched their experiment in 1975 with an intense promotional campaign. In this simple experiment, Pepsi officers set up stands in shopping malls and supermarkets, handed people two glasses with no brand marks on them, and asked volunteers which one they liked better. According to the result, half of the volunteers preferred drinking Pepsi to drinking Coca Cola. The result has made Pepsi executives very happy and made them think they could take over the market. But the result was not at all what they had hoped for and Coca Cola continued to maintain its market dominance. Since neuromarketing techniques were not used at that time, the real reason for the result was not understood.

28 years later, Dr. Read Montague decided to examine of the test results more thoroughly and in 2003 the same experiment was repeated on 67 subjects with the fMRI device, and the result was exactly the same as the previous test. In other words, more than half of the subjects who didn’t know the brand of coke they drank said they liked Pepsi and their brain waves supported it. In the second phase of the experiment, the study subjects were told beforehand that the beverage they drank was Pepsi or Coca Cola. According to the result, 75% of the participants in the experiment “said that they liked Coca-Cola”, and moreover, “it was observed that there was also a change in the brain activity of the volunteers”. With the introduction of emotions, rational thinking and emotional thinking regions of the brain began to work together and customers with mind-based preferences towards Pepsi, have preferred Coca Cola when they thought emotionally. After this research, with the scientific link between the brain and branding firmly proven, advertisers and marketers began to seek an interest in neuromarketing (Linderstrom, 2008, p.33-34).

Understanding and widespread use of neuromarketing applications will occur over time and in this process there will be some difficulties and resistance to acceptance. It will receive criticism on some issues that are not fully understood and as with the acceptance of every innovation, there will be difficulties.

In the widespread phase of its use, it is very important to establish ethical values in a healthy way in order to be perceived correctly and to prevent the exploitation of emotions.

The most critical aspect of neuromarketing is that it can reach unconscious perceptions and it is feared that it will activate purchasing behaviors that are beyond people's control. The possibility of businesses' ability to affect consumers' purchasing behavior beyond their control is considered to be risky. In addition to affecting their budgets, it is also thought that there is a possibility of adversely affecting mental and physical health by encouraging the purchase of harmful products (tobacco, etc.). The director of a neuromarketing company Neuroses, Dr. Michael Brammer replied to the negative criticism as follows: "It's difficult to accept and to understand a new technology in its early phases and it may be quite open to exploitation, but it is very important to be meticulous in scientific matters and to clarify ethical issues." (Morin, 2011, p.132)

According to some marketing academics who do not lean towards the topic of neuromarketing, 'cognitive psychology and neuroscience' are among the topics that are generally avoided due to the concern that there may be malicious uses in the wrong hands. The use of these techniques by knowledgeable and informed people will help to achieve correct results. For implementation in marketing departments, supporting sciences and their interpretations will be required, using it alone may reveal the risk of misinterpretation. Even though marketing departments and academics view neuromarketing positively, they may be inadequate to use these techniques and will need support. Neuroscience experts are skeptical of its ethical application in neuroscience and marketing. They do not find it ethical to create advertising campaigns that consumers cannot resist (Lee, Chamberlain and Broderick, 2007, p.199).

This new approach certainly involves some risks, but it is also in the hands of marketers to ensure that it is not abused and served as a service to humanity and companies and can benefit the beginning of a new era. Life consists of risks, and the path to success is through taking these risks. Every revolutionary innovation, every new invention goes through a painful process of acceptance and is first denigrated by the majority. When Galileo defended his claim that the Earth revolves around the sun, which against the dominating view that the Earth is the center of the entire universe, he was tried by the court and almost condemned to death. Because this view refuted all other views, all beliefs, all theses. It is often easier for people to deny the 'new idea' rather than to accept it. Acceptance of innovations requires a certain time process and through the years people have always faced with resistance in this regard.

Misunderstandings and criticisms regarding neuromarketing affecting the subconscious of consumers and its confusion with subconscious advertising, have led to the need to raise awareness of this issue and to carry out more detailed studies. Subconscious advertising and neuromarketing applications are mistaken for each other, whereas they are very different concepts (Yücel and Çubuk, 2013, p. 174-176):

- ✓ *Subconscious advertising* is performed by reaching consumers' subconscious perceptions outside their control and use an illegal form of communication. Consumers' purchasing behavior is affected by sending messages that fall below their perception thresholds that they are not normally aware of. Subconscious ads are delivered indirectly to the viewer or consumer without them perceiving these. *Neuro marketing*, on the other hand, is used to measure subconscious thoughts and perceptions and to reveal detailed reasons for purchasing/non-purchasing behavior. With neuromarketing, using technologically advanced techniques and measurements, the way messages and stimuli delivered to the consumer affect the brain is measured. At the same time, the results of the neuromarketing research are used to identify and eliminate negative situations that occur in consumer behavior.
- ✓ “*In subconscious advertising*, the encoded message sent to the target audience is not easy to detect; subconscious messages are sent with hidden words and images, or they can consist of recorded sounds in the background. If the consumer's message is clearly seen or heard directly with the sensory organs, this is not a subconscious message; the message is perceived at the level of consciousness. Subconscious ads are different from normal messages perceived at the level of consciousness; the message is perceived by the consumer's subconscious outside of their control” (Tıǧlı, 2002, p.357). Subconscious advertising aims to influence the subconscious of the consumer. *In neuromarketing research*, the desired message is clearly conveyed to the consumer; the purpose of the research is to reveal the emotions and thoughts that lie behind the thoughts and ideas expressed orally on this subject.

People should be aware of this issue and neuromarketing should be introduced as a science that is beneficial to humanity. When it is believed that its contri-

butions for businesses and marketers can provide more to consumers, and the consumer realizes that they actually want to know what they really want, volunteering for these efforts will be seen in their interests, not scary.

5. TECHNIQUES USED IN NEUROMARKETING RESEARCH

Among the many techniques used in neuromarketing research, the most used techniques are; “Electroencephalography (EEG), Functional Magnetic Resonance Imaging Device (fMRI), and Eye Tracking” techniques.

✓ *Electroencephalography (EEG) Technique*

Electroencephalography (EEG) is applied as a method that measures electrical activity in the brain without applying electrical current to the subjects participating in the research. It is commonly known as brain electrocution in public and it has no known harm. Communication in the brain is carried out by neurons. During this communication, an electric current occurs between the neurons due to voltage difference. By means of metal detectors placed on the human skull, the intensity of this electric current and the effected regions can be observed. This technique is called EEG (Batı and Erdem, 2015, p.193). The EEG technique measures, records and prints the electrical activity and its frequencies in the brain and the electrical signals realized inside the skull with the help of small detectors (sensors) placed on the scalp and the forehead area.

In the measurements made with EEG, the cognitive and emotional reactions of the consumers can be successfully monitored simultaneously. Consumers’ responses to advertising messages can be measured and analyzed (Ohme and Wiener and Reykowska and Choromanska, 2009, p.22). In measurements made using the EEG technique, the emotions of ad viewers are monitored and useful information is obtained if a certain hypothesis for research is followed. EEG measurement reveals users’ subconscious thoughts about how the advertising message is perceived (Olson and Ray, 1985). The EEG technique is used in neuromarketing research to identify consumers’ levels of interest, their attention, motivation and cognitive thoughts (learning and problem solving, etc). In order to eliminate the complexity of the obtained data and ensure noise reduction, statistical operations are carried out and the results are interpreted and used (<https://www.neurodiscover.com/2016>).

The EEG technique is more preferred than the fMRI machine, which provides clearer results, due to its cost-effectiveness.

✓ *Functional Magnetic Resonance Imaging Device (fMRI) Technique*

The functional magnetic resonance imaging (fMRI) technique measures the brain's response to consumer messages and different stimuli. The fMRI device performs a brain scan, showing which areas of the brain have become active and the degree of activation by creating a map. Experiments are carried out with these devices used in neuromarketing applications, visual materials are shown to consumers (advertising, images, etc.) and simultaneously the brain of consumers is scanned and examined.

The region of the brain that acts to make the most correct decision is the prefrontal cortex region located at the front of the brain (Batu ve Erdem, 2015, p.32). During measurement with the fMRI device, if the prefrontal cortex area becomes bright and displayed in red, it indicates that consumers' preferences are activated, with the images of products encouraging them to buy are monitored. In this case, the images shown are thought to encourage consumers to purchase (Wilkinson, 2005).

fMRI scanner is a fairly big device, an expensive and costly method to invest in. The fMRI device provides detection of areas where blood flow increases, identification of active areas of the brain. During brain scanning, the amount of oxygenated blood passing through the brain is measured, even the smallest areas are detected. The brain needs more glucose and oxygen when performing a special task; whichever part is used, the color of that part becomes red. Whatever area in the brain is active, that area becomes red and can be detected by this device, monitored by neurologists and can be evaluated (Lindstrom, 2008, p.18).

It is not possible for neurological movements occurring inside the human brain to lie and thanks to the developed fMRI technique, they can now be easily monitored. These new technical applications used in neuromarketing are recognized as highly effective techniques for tracking how consumers react to brands.

✓ *Eye Tracking Technique*

In recent years, measurements using eye-tracking devices have become quite common and these have begun to gain general acceptance in research studies conducted in the field of marketing with neuromarketing research methods (Centaur Communication, 2005, p.21).

Most expert viewers who use eye tracking devices in research methods measure eye's point of view using the "corneal-reflection / pupil-center"

method (Goldberg and Kotval, 1999, p.631). When using this technique, the directed rays enter the retina of the eye, making the pupil look bright, and the rays are largely reflected back from the retina layer. At this time, the eye tracking device determines the center of the pupil and the light reflected from the corneal layer; the difference is measured trigonometrically by mathematical calculations and the eye's attention point is determined (<http://www.alexpoole.info/blog/wp-content/uploads/2010/02/PooleBall-EyeTracking.pdf>, 2005).

Eye tracking is a more common and less costly technique that can be used more comfortably for both subjects and practitioners, in comparison to other techniques. In particular, its use in supermarkets is quite common and is used to measure how much consumers think on various shelves, brands and which products are more easily selected and purchased.

There are 3 main methods for tracking eye movements: "Recording the reactions of the pupil by directing the beam into the eye, measuring electricity on the skin around the eye, monitoring eye movement by inserting special lenses" (Özdoğan, 2008, p.137).

The most common of these methods is to record the reactions of the pupil thanks to the beam directed at the eye. For this method, there is no need to establish any experimental areas or gather focus groups. Because it can be utilized in daily life. For example, Pizza Hut has an eye-tracking technique that is still in the project phase and will emerge as a result of a 6-month study period. In this project, taking orders is carried out via tablet instead of a menu, and this tablet features an eye tracking device belonging to Swedish company called Tobii Technology. As the customers examine the ingredients they want to include in his pizza, the eye tracking camera analyzes the ingredients that the eye focuses on; the tablet recommends the pizza containing the most focused ingredients, and this analysis takes place within a short period of 2.5 seconds (<http://www.dailymail.co.uk/>, 2014).

As a new marketing strategy, neuromarketing uses neuro-science measurement techniques, measuring the brain's responses to a brand or product (Özkaya, 2015, p.42). It is suggested that successful and effective techniques such as "Electroencephalography (EEG), Functional Magnetic Resonance Imaging Device (fMRI), and Eye Tracking" etc. will be used instead of traditional marketing research techniques. These will be just complementary techniques to traditional means, not as rivals (Özkaya, 2015, p. 37).

6. CASE STUDIES ON NEUROMARKETING RESEARCH IN TERMS OF ITS ROLE IN INFLUENCING CONSUMER BEHAVIOR

Neuroscience seeks to identify the reasons behind consumer behavior. Neuromarketing, on the other hand, tries to reveal the importance and role of subconscious thoughts and emotions in creating a brand image and making brand decisions for consumers in the target market. Business managers use neuromarketing research to determine how consumers subconsciously feel towards created brand packaging and how customers feel during advertising campaigns. Neuromarketing research will clarify how consumers' decision-making behaviors are formed and how they are affected, and thus it will guide marketers towards their goals.

Although neuromarketing has been applied in general terms and used by companies abroad since 2002, it has found a new application opportunity in Turkey. Neuromarketing applications, the new generation of technological developments that are developing with the digital economy, and their use in the context of Industry 4.0 are becoming widespread. Due to the high costs, the process of its expansion becomes widespread in direct proportion to the country's development rate. Neuromarketing applications are among the research techniques and methods that have been more widely applied in recent years for businesses that want to increase their success in a competitive environment and become globalized.

6.1. Purpose of the Study

Neuromarketing research has been widely used in recent years to predict and understand consumer behavior towards brands and if necessary, to change consumer behavior in favor of the business performing marketing research (Baybars, 2016, p.207). Recently, it has become a topic that is also discussed quite often among marketing academics and practitioners.

Neuromarketing research are utilized in areas such as "brand positioning studies, customers' shopping experiences, creating product packaging designs, establishing marketing communication and creating advertising strategies", etc. Consumers' unconscious reactions are observed, their subconscious emotions are monitored and business managers try to achieve maximum benefit in marketing activities. Thanks to the research studies conducted, it is tried to reveal the subconscious feelings and thoughts of unaware consumers, apart from the answers they give to the questions. For example, before an advertising study is published, its impact on consumers can be evaluated using brain imaging tech-

niques. It is clear that this newly developed technological application, defined as neuromarketing; can be used very comfortably in every field, ranging from a new product or service to food, clothing, etc. and it will find its place, with ethical practices in the developing world without any negative side effects. It is believed that it will be used more widely and more often in coming years and will provide many advantages to both brands and customers.

The aim of this study, carried out in line with these views, is to try to explain the role of neuromarketing in influencing consumer behavior and to prove this goal with examples. For this purpose, samples of neuromarketing applications conducted in the world and in Turkey and the experimental studies conducted were examined through Case Studies and evaluated in detail with positive and negative results. In the case studies examined in line with this purpose, the positive and negative aspects of the advertisements and packaging studies of the companies on consumer behavior have been critically evaluated and examined.

6.2. Research Methodology

In the study, “neuroscience, the consumer’s brain and thinking style, neuromarketing applications and neuromarketing research techniques” were examined through literature research. In the research part of the study, neuromarketing applications from the new generation of technological developments developing with the digital economy were examined and with the use of neuromarketing techniques in marketing research, it was tried to reveal “not only what the consumer says, but what their feelings are in their subconscious”. In order to explain this situation, the results of previous neuromarketing experiments were evaluated as a case study.

In the study where “descriptive case study analysis” is used, the businesses selected for the research were examined by selecting them using “judgement sampling.” The reason for choosing the well-known global brand Unilever’s Algida and Penti is that they are both popular advertisements and studies, and they provide more information about the Turkish consumer. Another example is Frito-Lay, which is important in terms of observing the work realized on brand and packaging in the world.

The first two of the sample applications in Turkey were taken from the studies of Thinkneuro, the first neuromarketing company in Turkey, which uses both EEG and eye-tracking techniques. The ThinkNeuro company tests companies operating in Turkey and their activities for the Turkish consumer, and although it uses methods that already exist in the world, new methods are also

being developed. In the research study, advertising campaigns were based on “advertising scenarios were monitored by consumers” and consumer behavior was examined in detail using neuromarketing techniques.

6.3. Evaluation of Research Findings

In the study, which was prepared as case studies, the study and evaluation of consumer behavior in the neuromarketing studies that were previously carried out were conducted.

*** Penti Company**

Neuromarketing Study on the Commercial ‘You are the Star’

Penti has more than 300 stores in 60 cities in Turkey and 106 stores in 29 different countries abroad. Since 1999, it has been selling Penti branded products in established store chains. According to research, with 99.6 percent brand awareness and 78 percent brand loyalty, it remains the most recognized and most loved female brand in its field in Turkey. All of its achievements and speed of development attracted the attention of foreign investors, and in 2012, a partnership was made with the Carlyle Group, one of the world’s largest investment funds, and the goals of creating a global Turkish brand were further strengthened (https://www.penti.com/kurumsal_hakkimizda.html2016).

Penti started to use famous people as the face of the brand in its advertisements for the first time in the sock industry in 2006.

You are the Star (Star Sensin) is Penti’s television commercial published in 2014, and the advertisement consists of Hadise, appearing like world-famous stars. This research was measured with the AdNeuro™ research model, in which EEG and eye tracking measurement were used together.

Using celebrities in advertising in the world and in Turkey involves very high risks. As these famous people, who are part of popular culture, may have a lot of fans, they might have a segment that doesn’t like them or even might hate them. But according to the results of the Penti ad, Hadise’s friendliness is a benefit and the fact that she’s a judge in the popular TV show ‘Turkey’s Voice’ make the audience perceive her as a ‘member of the family’ among Turkish population and therefore the brand value is strengthened.

The advertising success of Penti was measured by neuromarketing research. This study was conducted on 32 women from Segment A, B, aged between 18 and 36. The scores came out at a level that could be interpreted as good. It

is noted that the emotional impact score of 78.2% is quite high compared to other advertising averages, the importance of which is often mentioned in the entire project. Again, according to the results, the attention curve appears to have increased significantly at the beginning of the ad (overall attention score 69.23%), indicating that the ad will be actively watched. At the same time, it was observed that the attention rate increased towards the end of the ad, and both the emotional impact and attention increased as the brand appeared. This means that the story has ensured integrity and consistency with the brand in the eyes of the consumer.

In the ad, Hadise portrays three different famous stars, and when their impressions are considered, it was revealed that the most effective one was appearance of Mena Suvari, who lied down on the roses in the film *American Beauty*. The enthusiasm in the audience's emotions this scene reached its peak at 9 and 30 seconds of the ad. The portrayal of Marilyn Monroe, in which the white skirt flutters around, seems to have a negative impact on the viewer. Trying to clarify the reasons for this in in depth interviews, Managing Partner of ThinkNeuro, Dr. Yener Girişken has found that the audience detached from the ad and lost themselves in their own memories and recalled the feeling of shame they felt when their skirts fluttered and they expressed their discomfort. But this negative effect was removed by the following action scenes and the attention and emotional impact curves increased as viewers gave their attention to advertising again.

According to the conclusion gained from this research, Penti is believed to have made the right decision by choosing Hadise as the face of advertising. Normally, it is difficult to come to such a conclusion in general, because admiration is a relative concept, and as mentioned earlier, the usage of celebrities in advertising films is risky. It is quite difficult to appeal to everyone with these stars who have fans, but also haters. According to the results however, Penti has overcome his challenge and Hadise was the right choice; suitable for the target audience and compatible with the brand (<http://www.thinkneuro.net/>, 2014).

*** Unilever Algida Brand**

A neuromarketing Study on the commercial "Share your Happiness with Algida in this Ramadan"

Algida is an ice cream company under the umbrella of Unilever, which differentiates its product varieties that are produced all over the world and which are similar in every country with local flavors, and their promotion works with

cultural elements and successfully implements the strategy of “think global, act local” in the international market (<https://www.algida.com.tr/home.html>, 2018).

They have prepared a special advertising film for the month of Ramadan in Turkey. This commercial film begins with a child trying to get to the evening meal with a pita bought from the grocery store, after the sound of a cannon exploding. As the child leaves the grocery store, he makes contact with the Algida freezer; the freezer moves around the neighborhood and stops in the garden, where all the family members are breaking their fast together. The narrated message at the end is as follows: “It may be a little difficult for an Algida freezer to come to you this Ramadan, but we expect you to come to the nearest Algida freezer after iftar this summer, share your happiness with Algida in this Ramadan.” Considering the results of the AdNeuro™ test, conducted by ThinkNeuro for the advertisement, it is revealed that all the scores of the commercial film are below the desired and expected levels.

*Attention remained below the overall average of all ads measured so far, with a score of 67.47, and Emotional Impact has the score of 66.63. Initially, the attention and emotional impact curves began to rise, which means that the continuation of this ad will be watched by viewers.

*Although the cannon exploding sound first raises the stress level, the fast-tempo music that follows activates emotions. With the activation of the Algida freezer, the emotional strain curve and attention curve begin to rise. However, after a while, the image of the freezer continuing to slide towards people starts to lower the emotional effect curve. The “Hey!” callout at the end, along with the introduction of external voice, creates an emotional strain occurs on the consumers. This is a negative situation and the emotional strain value was significantly higher than the average with a rating of 44.68. For this reason, the established emotional bond slowly disappears. With the ice cream eating scene, viewers’ interests are re-drawn.

*Finally, it was examined where the eyes of the audience were focused on the scene where the brand name was highlighted, and it was revealed that the audience saw the Unilever logo in the upper right corner as well as the Algida logo in the center.

One of the ThinkNeuro partners, Eda Ocak explained this decrease trend recorded in these subconscious perceptions as follows: “The downhill motion of the freezer has revealed emotional strain on the consumer, i.e. anxiety. Thanks to the establishment of an emotional connection between the logo on the freezer and the brand, the audience has felt anxiety toward the brand and

this has caused the situation to be associated with the brand. In recent neuro-marketing studies, there are two important issues that have an impact on the consumer: One is the ‘celebrity effect’, and the other is the ‘negative impact of negative emotions on the brand’, created in a commercial film to strengthen the story line. These two situations are of great importance for advertising films. The brand should be sure that it chooses the right person and should not unintentionally create negative internal reactions and emotions on the consumer, while it is desirable to arouse a correct and positive image in the story arc of the ad.”

As a result of research conducted with the neuro marketing experiment, it was revealed that attention should be paid to these situations, especially to the creation of story patterns that will evoke positive emotions, in the advertising film Unilever made for the Algida brand. Research results show that Algida has scared the consumer while trying to make them happy with this ad special for Ramadan. Although initially consumer feelings and thoughts were captured correctly and effectively, the consumer was also slowly lost as simplicity was lost. (<http://www.thinkneuro.net/mutlu-etmek-isterken-korkutmak>,2013)

*** Frito-Lay Company**

Neuromarketing Study On “Snacks for Women”

FritoLay company has a share of over 70% in the market. Frito Lay; draw a strong image in the market with “Doritos, Lay’s, Ruffles, Cheetos” brands. As a strong competitor trying to compete with Frito Lay, Kraft is the company and its brands are “Patos, Cipso and Cookie”. Frito Lay innovates and develops its products by placing its own brands in a competitive environment in the market (<https://pazarlamasyon.com/>, 2013).

Pepsi-Co’s Frito-Lay conducted a neuromarketing research study using an fMRI device in 2008 to test the packaging of chip products. With matte beige colored packages containing ‘other healthy ingredients in the content of the chips and the appearance of potatoes’ on the chips packaging; it has been observed a specific region of the brain known as the ‘Anterior Cingulate Cortex’ of the consumers is not triggered. On the chips that use bright color on packaging; it has been revealed that this triggers that area of the brain (unlike the picture, which has other matte and healthy product images). The ‘Anterior Cingulate Cortex’ region of the brain is the part associated with guilt. Pepsi-Co/Frito-Lay company has continued to use matte packaging by withdrawing brightly colored packaged chips from the market in America using the

results of this neuromarketing research (Aytekin and Kahraman, 2014, p.53) (Akan,2019, p.24).

In addition, they expanded this study by conducting more detailed research on women.

To get women to eat more of their Frito-Lay snacks, they explored women's feelings about snacks and guilt to produce new packaging, new flavors, and a new advertising campaign. *Neuromarketing studies* has helped the PepsiCo-affiliated company Frito-Lay, which makes snack products, learn more about women in what is actually its biggest target audience. As a result of neuromarketing research, the marketing activities of the brand have changed significantly as they learn that women approach Frito-Lays with guilt. According to research, women in general are more sensitive to diet and are more likely than men to feel guilty if they do not follow the diet. Snack products trigger this feeling of guilt in women. When Frito-Lay realized that they could not dispel women's guilt about snacks, they at least aimed to prevent this feeling from triggering.

* For this purpose, they started to prepare and market healthy products such as single packs and baked snacks for women who care about their calorie values.

* Another change has been made on package designs. Using more feminine colors and fonts, they waved off the guilt feeling and emphasized that they are fun and healthy snacks.

This attempt to reduce guilt has been successful. During this campaign based on neuromarketing researches, Frito-Lay has achieved 8% revenue and 7% profit increase in North America (<http://www.nytimes.com/>, 2009).

7. CONCLUSION AND ASSESSMENT

Businesses wishing to adapt to globalizing and rapidly developing markets, consumer demands and needs They fulfill their products and services with agile marketing activities in an agile production and organizational structure in line with consumer needs. Acting with an agile marketing strategy offers businesses a dynamic environment where long-term strategic marketing plans can be intervened in shorter terms if necessary. Agile marketing approach allows businesses to be innovative and act according to changes in the market. In agile marketing, the priority is to create positive values for the customer, to solve problems, to follow the consumer even before the competitors and to

make them happy consistently. To establish an innovative and agile frame of mind, welcoming change and planning changes in continuity are extremely important factors for success (Ene, 2020, p.14-15).

Nowadays, with the innovative and agile understanding, thanks to the developing technological applications, understanding the changing consumer behavior, understanding and following the subconscious thoughts are made easier with neuromarketing research, and neuromarketing applications have been widely used in recent years. It is possible to better understand consumer desires and needs with neuromarketing research techniques and to develop marketing strategies compatible with the target market (Dal, 2018, p.44). Using the right neuromarketing techniques serves to not only understanding the consumers' brain, but also understanding their emotions. Businesses that can understand both the logic and emotions of consumers can have both the sales figures they want and endless customer loyalty. Consumers' unconscious and emotional responses to marketing inputs and messages can now be measured by neuromarketing research and accurately explained and analyzed with the help of experts (Ustaahmetoğlu, 2015, p.164). In this way, businesses can establish a successful brand connection with their consumers and strengthen their competitive position in the market by deciphering consumers' thoughts and behaviors about the brand with neuromarketing research experiments (Coşkun, 2018, p.157).

In case studies examined for this purpose, the effects of advertising and packaging studies made by companies on consumer behavior were evaluated in terms of positive and negative aspects. In this study, which includes case studies based on neuromarketing research, we tried to increase the positive effect created on consumers in the target audience by using neuromarketing measurement techniques during packaging studies and advertising campaigns. Where emotional strain and negative effects were observed in advertising campaigns, regulations were made if necessary, and the success of advertising campaigns for the brand was increased. The brand's advertising campaign has been designed to create positive impressions, and if there are negative aspects for the brand, these have been corrected. In this way, it has been observed that the sales, profits and turnover of the brand have been positively affected, and a positive effect has been created on consumer behavior. The brand's success in influencing consumer behavior has also been increased.

In subsequent studies, more detailed studies can be done on the importance of ethical issues in neuromarketing research. Businesses must ensure that they protect consumers' information, that they are aware of the quality of interpreted

digital information and their ethical responsibilities. The results of neuromarketing laboratory experiments performed with due diligence should be generalized to the entire target audience.

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CHAPTER 2

A RESEARCH ON THE ETHNOCENTRISM TRENDS OF CONSUMERS AND COMPULSIVE BUYING BEHAVIOR IN THE CONTEXT OF DEMOGRAPHIC CHARACTERISTICS

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1. INTRODUCTION

Thanks to the innovations brought by our age, many consumers have had the opportunity to access products in international markets more easily than before. This situation has caused a great change in the product preferences of the consumers. Consumers have begun to acquire new shopping habits by exhibiting a more selective attitude thanks to the easier access to the products they desire. It is observed widely that in many studies where the phenomenon of consumption varies according to the social, psychological, cultural, economic

and demographic characteristics of individuals. Consumers can focus on their own benefits and display purchasing behavior according to these benefits. Some consumers prefer to act by taking care of the benefit of their countries and prefer to buy products belonging to local brands.

In this context, the concept of consumer ethnocentrism appears in the literature. It is possible to say that consumer ethnocentrism emerges as a result of individuals' preferring products belonging to their own countries to products of other countries. Some consumers, acting in line with their feelings, may behave against purchasing foreign brand products. This can lead to major changes in a consumer's purchasing behavior. Stating this; the present study examines the concept of consumer ethnocentrism and compulsive buying behavior together.

Compulsive purchasing behavior can be expressed as a consumer's purchase of a product that will force them financially by not being able to resist the buying feeling. Compulsive consumers can attempt to purchase a product without considering their financial situation, even though they do not need it. In the light of this information it is possible to state that such behavior of consumers causes dire financial consequences. A compulsive consumer may unwittingly attempt to shop in order to cover up the negative emotions he/she experiences in his/her life or to cover the lack of self-confidence. In this context, the principal objective of the present study is to exploit the relationship between compulsive purchasing behavior of consumers and ethnocentrism tendencies. In addition to the relationship between the two variables, the sub-objective of the study was determined the checking of any statistically significant difference between the demographic characteristics of the participants in the sample and these variables.

The study consists of 4 separate sections in total. In addition to the first section of the study, the second section includes the literature of consumer ethnocentrism and compulsive purchasing behavior, in the third part, information about the scales, model and hypotheses of the study is given, and in the last part, the fourth part, presents and offers the results which are the findings obtained from the research.

2. LITERATURE

2.1. Consumer Ethnocentrism

Thanks to the opportunities brought by globalization, the removal of market borders between countries has caused many different goods and services to take place in international markets. However, the attitude of consumers towards

foreign branded products may sometimes differ from the attitude they display towards domestic branded products. In this context, consumers can observe the distinction of foreign brands or domestic brands while purchasing products and pay attention to whether the products have an origin effect. This situation brings to mind the question of whether the products are produced by local businesses, and this question can change the purchasing behavior of consumers. Given this information it can be stated clearly that all these situations gave rise to the concept of `consumer ethnocentrism` in the literature. Consumer ethnocentrism emerges as a concept derived from the term psycho-sociological ethnocentrism (Jain and Jain, 2013: 3).

One result which is obtained at the end of the research is revealing that the people who first used the concept of consumer ethnocentrism were Shimp and Sharma. Shimp and Sharma (1987) stated that they used the concept of consumer ethnocentrism thinking that it should represent their beliefs about the appropriateness and morality of an American consumer purchasing foreign branded products and emphasized that it is wrong to purchase imported products from the perspective of ethnocentric consumers. Ethnocentric consumers prefer to buy foreign branded products to emphasize their wealth but Shimp and Sharma they think this is wrong (Özer and Dovganiuc, 2013: 68). Therefore, it is meaningful to say that the ethnocentric tendencies of the consumers are related to the feelings of nationalism and those who display an ethnocentric tendency prefer local products instead of imported one (Erciş et al., 2018:371).

Consumer ethnocentrism is defined as `the belief of consumers that the goods or services belonging to their own country are superior to the goods or services of other countries` (Değermen et al., 2017: 103). In another definition, consumer ethnocentrism can be defined as the evaluation of how ethical is a consumer's choice between domestic and foreign products in favor of foreign products (Ezzat, 2019: 73). It is possible to state that this concept is generally used in international marketing literature to explain negative feelings towards foreign countries' products (Banna et al., 2018: 311-312). On the other hand, it has been determined according to the research that consumers in developing countries are expected to use foreign products by reducing this negative effect of exhibiting ethnocentric tendencies (Ma et al., 2020:377).

2.2. Compulsive Buying Behavior

The increase in the financial possibilities of individuals from past to present has had a great effect on the change of consumption habits. Individuals have become

able to access more goods and services thanks to the abundance of product variety and technological opportunities nowadays. It is possible to say that this situation causes individuals to consume arbitrarily by going beyond their basic needs over time. Thanks to the conditions that have a great impact on purchasing behavior, consumers may attempt to purchase some products even if they do not need them and in situations that may force them financially. In the literature, this situation appears as compulsive buying behavior. As a result of the investigations, it is revealed that the people who used the concept of compulsive buying behavior for the first time were Faber, O'Guinn and Krych (1987). According to Faber et al., (1987), compulsive purchasing behavior is defined as an excessive and destructive purchasing behavior that does not fit the lifestyles of consumers who are impulsively directed to consumption. In other words, compulsive purchasing behavior is a disturbance that can lead to financial difficulties as a result of consumers' impulsivity to purchase and their inability to control this situation (Korur and Kimzan, 2016: 45). According to another definition, compulsive buying behavior is becoming increasingly complex and widespread, with potentially dire consequences not only for compulsive buyers but also for their environment (Roberts et al., 2014:147).

It is possible to say that consumers who display compulsive purchasing behavior are individuals who try to avoid the negative aspects of life, have less self-confidence and are more prone to dreaming (Özer and Kutbay, 2018: 80). In this context, it is stated that consumers exhibiting compulsive purchasing behavior attempt to make purchases to compensate for the above-mentioned situations and perform this behavior in order to attain the desired image and social status (Adamczyk et al., 2020: 3; Japutra and Song, 2020: 3).

It has been stated that consumers who display compulsive buying behavior are more willing to buy than those who do not exhibit compulsive purchasing behavior and they can show less resistance to this desire compared to other consumers (Yakin and Aytekin, 2019: 202). It is possible to say that consumers' compulsive buying behavior varies depending on genetic, social, psychological and demographic characteristics. As a result of the literature review, it was observed that this variable was examined in terms of demographic characteristics as well as the social, psychological and neurobiological characteristics of consumers, and it was found that demographic characteristics were related to the compulsive buying behavior of consumers (See.: Table 13).

3. METHODOLOGY

3.1. Research Method and Sampling

In this study, which was conducted to examine consumers' ethnocentrism tendencies and compulsive purchasing behaviors in the context of demographic characteristics, data were obtained by using convenience sampling technique. The data were obtained by sending the questionnaire form to the participants through online platforms. The unit study of the research consists of individuals over the age of 18 living in our country, that is, in the Turkish population. The population of our country as of 2020 is 83 million 154 thousand 997 (Turkish Statistical Institute, 2020). Since it is impossible to reach the entire unit of study, the research was conducted on a sample that could represent the universe. In order to determine the sample, the table containing possible sample mass figures representing a particular sample was used. According to Coşkun et al. (2017), based on the figures in the minimum sample size table; the sample size was determined as 384 with an error margin of 95% and (0.5). As a result of all these, the data was collected by sending a questionnaire form to 442 people via online platforms. The answers given to the statements in the questionnaire were checked for incomplete or incorrect data, and since no deficiencies or errors were detected, all the answered questionnaires were analyzed. As a result of the researches and the data obtained, the conceptual model was established by developing the hypotheses regarding the research.

The questionnaire form used in the study consists of three separate parts. The first part of the form consists of expressions containing demographic information created by the researcher in order to measure the demographic characteristics of the participants. In the second part, statements about the consumer ethnocentrism scale are given. In the third part, statements about the scale of compulsive purchasing behavior are included. The consumer ethnocentrism scale used in research was developed by Shimp and Sharma (1987). The reason why this scale is preferred is that it is the most cited scale on the subject and its validity has been adequately used in many studies. The scale consists of 17 items in total. In this study, all expressions of the scale are included. The compulsive buying behavior scale used in the study was developed by Faber and O'guinn (1992). The reason why this scale is preferred is that it is the most cited scale in the relevant subject and its validity has been adequately used in many studies. The scale consists of 7 items in total. In this study, all expressions of the scale are included. For the scales used in the questionnaire form, the participants were asked to answer the questions by using the 5-point Likert-type scale:

(1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree).

Information on the scales is included in Table 1.

Table 1: Scales used in the research

Scale	Developing Researchers and Year of Publication	Number of Items
Consumer Ethnocentrism (CATSCALE)	Shimp and Sharma (1987)	17
Compulsive Buying Behavior	Faber and O'guinn (1992)	7

3.2. Research Model and Hypotheses

Given the results which are obtained from the research, and referring to the data also obtained from the research, the conceptual model was established by developing the hypotheses regarding the present research.

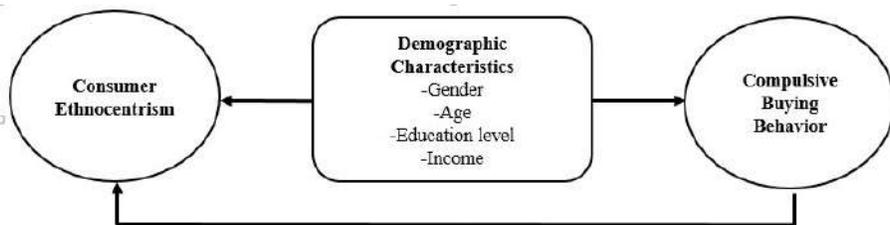


Figure 1: Conceptual model of the research

H_1 : There is a positive relationship between compulsive buying behavior and consumer ethnocentrism.

H_2 : There is a significant difference between the gender variable and consumer ethnocentrism.

H_3 : There is a significant difference between the age variable and consumer ethnocentrism.

H_4 : There is a significant difference between education level and consumer ethnocentrism.

H₅: There is a significant difference between income status and consumer ethnocentrism.

H₆: There is a significant difference between the gender variable and compulsive purchasing behavior.

H₇: There is a significant difference between the age variable and compulsive purchasing behavior.

H₈: There is a significant difference between education level and compulsive buying behavior.

H₉: There is a significant difference between income status and compulsive purchasing behavior

As a result of the examinations, among many studies in the literature that examine consumer ethnocentrism in terms of demographic characteristics (Bernabeu et al., 2013: 79; Tayfun and Gürlek, 2014: 36; Eysel, 2019: 109; Elibol, 2020: 102); on the basis of many studies that examine the compulsive purchasing behavior of consumers in the context of demographic characteristics (Faber and O'guinn, 1992: 461; Dittmar, 2005: 835; Billieux et al., 2008: 1438) hypotheses about the research were established by using the data and the research model was developed as a result of the findings obtained from the data.

The distribution of the individuals participating in the survey application conducted within the scope of the research according to their demographic characteristics is given in Table 2.

Table 2: Demographic Characteristics of the Sample

		Dear	Percent (%)	Total
Gender	Woman	281	63,6	442
	Male	161	36,4	
Age	18-26 Age	288	65,2	442
	27-35 Age	65	14,7	
	36-44 Age	44	10,0	
	45-53 Age	31	7,0	
	53-62 Age	9	2,0	
	63 Age and Over	5	1,1	
Level of education	Primary school	15	3,4	442
	Middle School	15	3,4	
	High school	64	14,5	
	Undergraduate	42	9,5	
	Bachelor	236	53,4	
	Master	63	14,3	
	PhD	7	1,6	
Income Condition	0-2.324 TL	228	51,6	442
	2.325- 4.649 TL	101	22,9	
	4.650-6.974 TL	63	14,3	
	6.975-9.299 TL	27	6,1	
	9.300 TL and more	23	5,2	

The demographic characteristics of the sample included in the present research are shown in Table 2 above. According to Table 2, 63.6% of the participants included in the sample of the study are women and 36.4% are men. When checking and evaluating the age range of the participants included in the sample of the study, it is seen that 288 participants are in the 18-26 age range and represent 65.2% of the sample with the highest rate. Looking at the proportion

of age ranges, respectively, the second place is in the 27-35 age range with a rate of 14.7, the third is in the 36-44 age range with 10.0%, the fourth is in the 45-53 age range with 7.0%, the fifth is in the age range of 2.0%. 53-62 years old, while the last place is represented by the participants aged 63 and above with a rate of 1.1%. Regarding the level of education, 53.4% of the participants in the sample were educated at the undergraduate level, the second was high school with 14.5% 7, the third was the graduate level with 14.3%, the pre-school education was It was concluded that they received bachelor's degree education, 3.4% primary and secondary school level, and most recently, 1.6% received doctoral education. Finally, when the income level is examined, it is seen that 51.6% of the participants have an income in the range of 0-2.324 TL. Looking at this ratio, can easily stated that the income level of most of the sample is in the range of 0-2,324 TL. The Cronbach Alpha Coefficient was determined in order to measure the reliability level of the Consumer Ethnocentrism and Compulsive Purchasing Behavior scales used in the study. Cronbach Alpha Coefficients for the scales are given in Table 3.

Table 3: Reliability coefficient of the scales

Scales	Measuring Range	Number of Items	Cronbach Alpha Coefficient
CATSCALE	5-Scale (Between 1-5)	17	0.934
Compulsive Buying Behavior	5-Scale (Between 1-5)	7	0.784

Reliability coefficient was accepted as 60% in the literature. It has been mentioned that values below 60% are not reliable, the values between 61% and 80% are at the acceptable reliability level, and the values 81% and above are highly reliable (İslamoğlu and Alnaçık, 2016: 292). As a result, when we look at Table 3, it is observed that the scales used for the research have high and medium reliability, respectively, since the Cronbach Alpha Coefficient is 93% and 78%.

3.3. Analysis of Data on the Consumer Ethnocentrism Scale

In order to measure consumers' tendencies to Ethnocentrism a 17-item scale was developed by Shimp and Sharma (1987). In order to determine the structural validity of the developed scale, exploratory factor analysis was applied using principal component analysis and varimax axis rotation technique. KMO and Bartlett's tests were conducted to test whether the expressions were suitable for factor analysis. As a result of the test, it was determined that the KMO sample adequacy value was 94% and the size of the sample was sufficient for factor analysis. The significance of the Barlett sphericity test ($p < 0.001$) indicates that the correlation relations between the items are suitable for factor analysis. In this context, the scale was deemed suitable for factor analysis and the results are given in Table 4.

Table 4: Factor analysis for the consumer ethnocentrism scale

	Expressions	Factor 1	Factor 2
E5	Buying products made in a foreign country is against Turkishness.	0,765	
E6	It is not right to buy foreign products because it causes Turkish people to be unemployed.	0,625	
E7	A true Turkish should always buy Turkish-made products.	0,727	
E9	It is always best to buy Turkish products.	0,588	
E11	Turks should not buy foreign products as it harms Turkish businesses and causes unemployment.	0,652	
E12	Barriers must be placed on all imported products.	0,759	
E14	Foreigners should not be allowed to bring their products to our markets.	0,763	
E15	Foreign products should be highly taxed in order to reduce their entry into Turkey.	0,686	
E17	Turkish consumers who buy products produced in other countries are responsible for causing unemployment of Turkish people who are their citizens.	0,712	
E1	Turkish people should always buy Turkish-made products instead of imported ones.		0,683
E2	Only products that are not available in Turkey should be imported.		0,770

E3	Buying Turkish-made products protects the Turkish employee.		0,784
E4	Turkish-made products come first.		0,625
E8	Instead of letting other countries get rich on us, we should buy products made in Turkey.		0,685
E10	Purchase or trade of goods from other countries should be minimal, except in compulsory cases.		0,639
E13	I prefer to support Turkish products, even if it is costly to me in the long run.		0,564
E16	We should only buy products that we cannot find in our own country from foreign countries.		0,681
<i>Eigenvalue</i>		8,288	1,592
<i>Cronbach Alpha</i>		0,910	0,882
<i>Total Cronbach Alpha</i>		0,934	
<i>Variance Explained</i>		30,531	27,582
<i>Total Variance Announced</i>		58,113	

Notes: (i) $n = 442$, (ii) Prime Components Analysis. (iii) KMO: 0.942, Bartlett Test = 4182.101; $p < 0.001$.

As a result of the exploratory factor analysis, a two-factor result was obtained and it was concluded that the total variance explained for the factors was 58.11%. In addition, it is possible to say that the scale has structural validity because the factor load of the expressions is over 0.50 (Samson and Terziowski, 1999: 403). All these results indicate the validity of the 2-factor structure of the scale consisting of 17 items. As a result of the literature review, it is an important feature of the CATSCALE scale to have a single factor structure. In many studies, the scale is only one factor (Bawa, 2004: 50; Li and He, 2013: 93; Ermeç Sertoğlu and Çatlı, 2017: 10; Peker et al., 2017: 28; Şahin and Gültekin, 2017: 1001), but in some studies It has been observed that multifactorial results can be reached (Ramayah et al., 2011: 2816; Kadanalı et al., 2014: 1338; Yıldırım, 2019: 163; Altınay Özdemir and Kızılırmak, 2019: 186). Finding two factors as a result of the factor analysis regarding the scale in this study supports the studies with multi-factor results.

Tests were conducted to determine the mean and standard deviation values of the expressions of the Consumer Ethnocentrism Scale used in the study. The mean and standard deviation values of the Consumer Ethnocentrism Scale are shown in Table 5.

Table 5: Findings regarding the consumer ethnocentrism scale

	Expressions	Average.	Std. Deflection
E1	Turkish people should always buy Turkish-made products instead of imported ones.	3,46	1,20
E2	Only products that are not available in Turkey should be imported.	3,68	1,14
E3	Buying Turkish-made products protects the Turkish employee.	4,12	1,00
E4	Turkish-made products come first.	3,45	1,19
E5	Buying products made in a foreign country is against Turkishness.	1,99	0,98
E6	It is not right to buy foreign products because it causes Turks to be unemployed.	2,59	1,12
E7	A true Turk should always buy Turkish-made products.	2,41	1,19
E8	Instead of letting other countries get rich on us, we should buy products made in Turkey.	3,61	1,12
E9	It is always best to buy Turkish products.	3,11	1,17
E10	Purchase or trade of goods from other countries should be minimal, except in compulsory cases.	3,40	1,17
E11	Turks should not buy foreign products as it harms Turkish businesses and causes unemployment.	2,94	1,14
E12	Barriers must be placed on all imported products.	2,20	1,07
E13	I prefer to support Turkish products, even if it is costly to me in the long run.	3,40	1,01
E14	Foreigners should not be allowed to bring their products to our markets.	2,54	1,14
E15	Foreign products should be highly taxed in order to reduce their entry into Turkey.	2,78	1,20
E16	We should only buy products that we cannot find in our own country from foreign countries.	3,50	1,09
E17	Turkish consumers who buy products produced in other countries are responsible for causing unemployment of Turkish people who are their citizens.	2,54	1,15
<i>Total</i>		3,04	1,12

*n= 442. *Scale: 1=Strongly disagree-5= Strongly agree.

Descriptive statistics regarding the scale of consumer ethnocentrism can be seen in Table 5 above. Looking at Table 5, the expression with the highest degree of participation in the consumer ethnocentrism scale is “Buying Turkish-made products protects the Turkish employee (4,12)”. The lowest expression is “Buying products made in a foreign country is against Turkishness (1.99)”.

3.4. Data Analysis of Compulsive Purchase Scale

In order to measure the compulsive purchasing behavior of consumers a 7-item scale was developed by Faber and O’guinn (1992). In order to determine the structural validity of the developed scale, exploratory factor analysis was applied using principal component analysis and varimax axis rotation technique. As a result of the exploratory factor analysis in Table 6, it has been determined that the KMO sample adequacy value is 85% and the size of the sample is sufficient for factor analysis. The significance of the Barlett sphericity test ($p < 0.001$) indicates that the correlation relations between the items are suitable for factor analysis. In this context, the scale was deemed suitable for factor analysis and the results are given in Table 6.

Table 6: Factor analysis for compulsive purchasing scale

	Expressions	Factor Load
K1	If I have any money left after I have made my payments and necessary expenses at the end of the month, I feel obliged to spend it too.	0,698
K2	I think people would be terrified if they learned about my spending habits.	0,661
K3	Even if I cannot afford it, I buy something.	0,777
K4	Even if I know that I do not have money to afford what I want to buy at the bank, I resort to various methods (such as payment by credit card, using an additional account, or writing a check).	0,693
K5	I buy something to feel better.	0,633
K6	On days when I don’t go shopping, I feel nervous and anxious.	0,660
K7	I only pay the minimum (minimum payment) amount of my credit card statement.	0,515
<i>Eigenvalue</i>		3,109
<i>Cronbach Alpha</i>		0,784
<i>Variance Explained</i>		44,411

Notes: (i) $n = 442$, (ii) Prime Components Analysis. (iii) KMO: 0.851, Bartlett Test = 755.275; $p < 0.001$.

As a result of the exploratory factor analysis, a single factor result was obtained and it was concluded that the total variance explained for the expressions was 44.41%. In addition, it is observed that the factor loads of the expressions are over 0.50, so the scale has structural validity. All these results indicate the validity of the single-factor structure of the scale, which consists of 7 items. Many studies (Öz et al., 2016: 11; Semiz, 2017: 18; Belbağ and Cihangir, 2019: 421) were found to be single-factored as a result of the factor analysis of compulsive purchasing scales in the literature. Finding a single factor in this study as a result of the factor analysis related to the scale supports studies with single-factor results.

Tests were conducted to determine the mean and standard deviation values of the expressions of the Compulsive Purchase Scale used in the study. The mean and standard deviation values of the Compulsive Purchase Scale are shown in Table 7.

Table 7: Findings regarding the compulsive purchasing scale

	Expressions	Average	Std. Deflection
K1	If I have any money left after I have made my payments and necessary expenses at the end of the month, I feel obliged to spend it too.	2,21	1,12
K2	I think people would be terrified if they learned about my spending habits.	2,20	1,05
K3	Even if I cannot afford it, I buy something.	2,18	1,05
K4	Even if I know that I do not have money to afford what I want to buy at the bank, I resort to various methods (such as payment by credit card, using an additional account, or writing a check).	2,19	1,14
K5	I buy something to feel better.	3,07	1,18
K6	On days when I don't go shopping, I feel nervous and anxious.	1,83	0,95
K7	I only pay the minimum (minimum payment) amount of my credit card statement.	2,28	1,20
<i>Total</i>		Total	1,09

* n = 442. * Scale: 1 = Strongly disagree-5 = Strongly agree.

Descriptive statistics regarding the scale of compulsive purchasing behavior can be seen in Table 7 above. Looking at Table 7, the statement with the highest degree of participation in the compulsive buying behavior scale is “I buy something to feel better about myself (3.07)”. The lowest statement is “I feel nervous and anxious (1,83) when I don’t go shopping”.

3.5. Findings on Hypotheses

The main purpose of this study is to determine whether there is a relationship between consumer ethnocentrism and compulsive buying behavior. In this context, whether there is a relationship between consumer ethnocentrism and compulsive purchasing behavior scales was calculated using the Pearson correlation coefficient.

Table 8: Correlation analysis between variables

		Consumer Ethnocentrism	Compulsive Buying Behavior
Consumer Ethnocentrism	r	1	0.122 *
	p		0,000
	n	442	442
Compulsive Buying Behavior	r	0.122 *	1
	p	0,000	
	n	442	442

Note: ** $p < 0,001$

It was observed from the analysis results that there was a positive correlation between consumer ethnocentrism and compulsive purchasing behavior ($r(442) = 0.122, p < 0.01$). According to these results, H_1 : “There is a positive relationship between compulsive purchasing behavior and consumer ethnocentrism” hypothesis was accepted. Having a positive relationship between variables means that one of the two variables increases while the other decreases. However, according to the result of the correlation analysis, the value of the relationship between the two variables (0-0.3) indicates that the relationship between them is positive but weak (Gürbüz and Şahin, 2018: 262).

Table 9: Independent sample t test results

	Gender	N	Average.	SS	F	t	Shallow.
Consumer Ethnocentrism	Woman	281	3.13	0.73	4,930	3,289	0.001
	Male	161	2.88	0.85			
Compulsive Buying Behavior	Woman	281	2.30	0.76	4,008	0.757	0.002
	Male	161	2,52	0.65			

***Note:** $p < 0,05$

According to the results of the independent samples t-test in Table 9, whether the opinions of the participants on consumer ethnocentrism and compulsive buying behavior differ significantly according to gender was investigated through the data obtained from 442 people. According to the findings, a significant difference was found between the opinions of the participants on consumer ethnocentrism ($p < 0.05$). The average of the ethnocentrism tendencies of the female participants (mean = 3.13; SD = 0.73) was higher than the average of the ethnocentrism tendencies of the male participants (mean = 2.88; SD = 0.85). The average of male participants' compulsive buying behaviors (mean = 2.52; SD = 0.65) was higher than the average of female participants' compulsive buying behavior (mean = 2.30; SD = 0.76). These results show that female participants exhibit significantly more ethnocentrism tendency than male participants, and male participants exhibit significantly more compulsive buying behavior than female participants. According to independent samples t-test results, " H_2 : There is a significant difference between gender variable and consumer ethnocentrism" and " H_6 : There is a significant difference between the gender variable and compulsive buying behavior" hypotheses were accepted.

One Way Anova Test was conducted to determine whether the ethnocentrism and compulsive purchasing behaviors of the participants differ according to their age and the results are given in Table 10.

Table 10: Results of analysis of differences by age

	Average	F	Sig.
<i>Consumer Ethnocentrism</i>	3,20	4,279	0,001
<i>Compulsive Buying Behavior</i>	2,12	4,808	0,000

***Note:** $p < 0,05$

Given the result of the variance analysis, it was concluded that the consumer ethnocentrism and compulsive buying behaviors of individuals differ according to their ages. According to the obtained results which are shown in the table; “*There is a significant difference between the age variable and consumer ethnocentrism*” and “ H_7 : *There is a significant difference between the age variable and compulsive buying behavior*” thus the hypotheses were accepted.

In order to determine whether the ethnocentrism and compulsive purchasing behaviors of the participants differ according to their education levels One Way Anova Test was conducted, and the results are presented in Table 11.

Table 11: Results of analysis of differences according to education level

	Average.	F	Sig.
<i>Consumer Ethnocentrism</i>	3,15	4,503	0,000
<i>Compulsive Buying Behavior</i>	2,24	0,759	0,602

***Note:** $p < 0,05$

As a result of the variance analysis, it was observed that the ethnocentrism tendencies of the individuals differed according to their education level, while it was concluded that compulsive buying behaviors did not differ according to their education level. According to the results obtained “ H_4 : *There is a significant difference between education level and consumer ethnocentrism*” hypothesis was accepted, but “ H_8 : *There is a significant difference between education level and compulsive buying behavior*” hypothesis was not accepted.

One Way Anova Test was conducted to determine whether the ethnocentrism and compulsive purchasing behaviors of the participants differ according to their income levels and the results are given in Table 12.

Table 12: Differences by income level analysis result

	Average	F	Sig.
<i>Consumer Ethnocentrism</i>	3,03	0,925	0,449
<i>Compulsive Buying Behavior</i>	2,16	4,100	0,003

***Note:** $p < 0,05$

As a result of the variance analysis, it was observed that the ethnocentrism tendencies of individuals did not differ according to their income levels, while it was concluded that compulsive purchasing behaviors differ according to their income levels. According to the results, while hypothesis " H_5 : *There is a significant difference between the income situation and consumer ethnocentrism*" was not accepted; " H_9 : *There is a significant difference between income status and compulsive buying behavior*" hypothesis was accepted.

As a result of the literature review, it has been revealed that the results of this study are similar to the studies that examine consumer ethnocentrism and compulsive purchasing behavior in the context of demographic characteristics. In the Table 13 below, studies achieving the same results are included. In other words, the results of the studies in Table 13 support the results obtained in this study. In this case, it is possible to say that the study is supported by the literature.

Table 13: Similar results in literature

	Gender	Age	Education Status	Income status
CONSUMER ETHNOCENTRISM	Sharma et al., (1994) Ari and Madran, (2015) Ors et al., (2017) Koçoğlu, (2019) Kilic and Aytaç, (2019)	De Ruyter et al., (1998) Hamelin et al., (2014) Ari and Madran, (2015) Tuncer and Gökşen (2016) Ors et al., (2017) Özdemir et al., (2018) Koçoğlu, (2019) Öztürk, (2020)	De Ruyter et al., (1998) Aysuna and Altuna., (2008) Warn and Dursun, (2015) Poyraz, (2017) Özdemir et al., (2018) Koçoğlu, (2019) Özden and Eser, (2019) Öztürk, (2020)	De Ruyter et al., (1998) Hamelin et al., (2014) Bee and Madran, (2015) Poyraz, (2017) Özdemir et al., (2018) Koçoğlu, (2019) Kilic and Aytaç, (2019)
COMPULSIVE BUYING BEHAVIOR	Black et al., (2012) Arslan, (2015)	Shahjehan et al., (2012) Kaderli et al., (2017) Kyrios et al., (2020)	Black et al., (2012)	Arslan, (2015) Arslan and Oz, (2016) Kaderli et al., (2017)

4. RESULT

It is possible to say that many new concepts have entered the marketing literature in today's world where postmodern consumers can consume more comfortably. One of these concepts, consumer ethnocentrism can be defined as the belief that the products of their own countries are at the forefront, acting with the feelings of nationalism.

Compulsive purchasing behavior, on the other hand, is a purchasing behavior caught in the feelings of the consumers and causes them to experience financial difficulties by not being able to control this situation. The results obtained in this study, which was conducted to determine the relationship between compulsive buying behavior and consumer ethnocentrism and to examine these two variables in the context of demographic characteristics, can be summarized as follows:

Of the 9 hypotheses established in the study, only " H_5 : *There is a significant difference between the income status and consumer ethnocentrism*" and " H_8 : *There is a significant difference between education level and compulsive buying behavior*" hypotheses were rejected and the other 7 hypotheses were accepted.

As a result of the examinations, it has been observed that there are many studies in the literature that examine consumer ethnocentrism and compulsive purchasing behavior in the context of demographic characteristics. In this study, it is seen that the results are supported by the literature, as the results of the demographic characteristics of the consumers and the consumer ethnocentrism and the compulsive buying behavior are compatible with the previous studies. Similar studies found in the literature regarding the investigations made in order to indicate that the results of this study are supported are given in Table 13 above. Although there are many studies in the literature that examine the two variables in terms of demographic characteristics, there is no study examining the relationship between the two variables. Therefore, it is possible to say that this study will make a different contribution to the literature. The number of participants reached and time are the biggest constraints of the study, since the unit of study is very large. Therefore, it is recommended that future studies should reach more participants by determining a more appropriate time period while examining two variables together, or to increase the adequacy of the sample by determining a smaller population. In addition, the research model can be differentiated by adding new variables to the research.

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CHAPTER 3

THE PLACE OF DIGITAL MARKETING IN THE HOSPITALITY SECTOR: A REVIEW FOR CAPPADOCIA*

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1. INTRODUCTION

The increasing importance of the concept of digital marketing with the technological developments in this century has led to the need for companies to apply modern marketing strategies in the best way in every environment, unlike traditional marketing strategies. The fact that digital marketing channels have a worldwide impact in comparison with traditional communication types has enabled consumers to increase the bidirectional information exchange about brands, products or services, as well as to being a great resource and information source in shaping consumer behaviour thanks to comments, opinions and suggestions (Deng, et. al., 2014). In order to lower the uncertainty and perceived risks while making a purchasing decision, consumers can easily reach other users by using a variety of digital marketing channels in order to benefit

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from the experiences of consumers who have previously made purchase decisions and can easily access the comments, opinions and suggestions they require while making their decision (Godes and Mayzlin, 2004; Litvin, et. al., 2008; Lee and Youn, 2009; Ladhari and Michaud, 2015).

Digital marketing channels have led to differences in the way people access information, leading to a change in the way potential consumers choose to make purchasing decisions. These changes in access to information have begun to affect companies as well as consumers. The dynamism and differences provided by digital marketing platforms on communication provide many advantages to many companies to do their best in terms of marketing their products or services as well as establishing an effective relationship with customers, creating and developing brands, increasing corporate reputation, conducting market research and evaluating feedback from customers. (Nardi, et. al., 2007; Mazzarol, et. al., 2007; Murugesan, 2007; Sweeney, et. al., 2008; Gretzel and Yoo, 2008).

Digital marketing channels, which are located at an important position in the tourism and accommodation sector, provide users with great convenience in obtaining information and making purchasing decisions through comments and information sharing (Liu and Park, 2015). The use of digital marketing channels and feedback, opinions, comments and ratings shared by hotel customers from online channels by consumers has an impact on other the purchase decision processes of other potential customers (Stringam and Jr, 2010; Leung, et. al., 2013). Potential customers can quickly access all information about hotels thanks to the wealth of information provided by content assessments that digital platforms such as TripAdvisor (Xie, et. al., 2016). Assessments made by customers who share their experiences on digital marketing platforms have a positive impact on the purchasing decisions of potential customers and a tendency to feel confident (Dickinger, 2011). This situation offers great opportunities both for consumers and hotels, one of the most significant aspects of the tourism industry (Neuhofer, et. al., 2012).

Based on this information, the aim of the study is; to carry out a detailed examination of the advantages of using digital marketing tools in tourism marketing, where the potential of users to influence each other is quite high, and in this regard, to understand and analyze to what extent the criteria determined by content analysis carried out using TripAdvisor comments by consumers have an effect on the hotel preferences of potential customers for hotels in Cappadocia.

2. LITERATURE REVIEW

The increasing enrichment of digital marketing elements as content, the increase in user numbers and the ability to interact with quite a large audience have led to some criteria regarding hotel preferences on TripAdvisor changing and taking into account from different angles. At the top of these criteria, in its simplest form, positive or negative comments and opinions about hotels have an impact on the consumer purchasing decision process (Chen and Law, 2016; Chen and Ng, 2017; Lombardi and Venero, 2017; Tsao, et. al., 2018). A study of studies conducted to investigate this effect concludes that positive or negative comments and opinions have an effect on consumer behaviour. It shows that some of the potential customers are turning to hotel preferences that receive positive comments and have higher review scores by examining the comments on TripAdvisor before making their hotel preferences, and consumer behaviour is shaped in this direction (Park and Allen, 2013; Liu and Park, 2015; Molinillo, et. al., 2016; Phillips, et. al., 2017; Chan, et. al., 2017; Ruiz-Mafe, et. al., 2018; Mariani and Borghi, 2018). It is observed that some of the potential customers, unlike other studies, find the negative comments and opinions stated about hotels more realistic and determine their online consumer behaviour in this direction (Godes and Mayzlin, 2004; Park and Nicolau, 2015; Casaló, et. al., 2015).

Many studies have been conducted to determine which of the criteria derived from comments and views made on TripAdvisor, which is considered the leader among digital marketing channels for the tourism sector, is an important element in determining purchasing behavior by influencing consumer preferences. From comments and opinions about hotels that are effective in consumer preferences and play a decisive role in purchasing behavior Jeong and Jeon, (2008); concluded that “architectural structure, general cleaning services, staff-service quality, location-transportation facilities and recommendation level”, Miguéns, et. al., (2008); concluded that “food and beverage facilities, personnel-service quality and location-transportation facilities”, Barriocanal, et. al., (2010); concluded that “architectural structure, food and beverage facilities and recommended level”, O’Connor, (2010); concluded that “architectural structure, food and beverage facilities, personnel-service quality and recommendation level”, Stringam, et. al., (2010); concluded that “architectural structure, general cleaning services, personnel-service quality and location-transportation facilities”, Tejada and Moreno, (2013); concluded that “architecture structure”, Barreda and Bilgihan, (2013); concluded that “architectural structure, general

cleaning services, personnel-service quality and recommendation level”, Limberger, et. al., (2014); concluded that “architectural structure, general cleaning services, personnel-service quality, location-transportation facilities and recommendation level”, Xie, et. al., (2016); concluded that “personnel-service quality”, Banerjee and Chua, (2016); concluded that “personnel-service quality and location-transportation facilities”, Berezina, et. al., (2016); concluded that “architectural structure, general cleaning services, personnel-service quality and location-transportation facilities”, Molinillo, et. al., (2016); concluded that “architectural structure” stood out.

3. STUDY MODEL AND FINDINGS

Based on the literature reviews, theoretical information and content analysis on the subject in the study, the mathematical model panel version established to examine the effects of the criteria that customers care about in hotel preferences on the star scores of hotels is as follows:

In this study, the criteria that affect the preferences of tourists for hotels in Cappadocia were examined and accordingly, 12.000 panels of 25 hotels between the years of “2015-2018” prepared by obtaining from TripAdvisor.com.tr were surveyed using data methods.

3.1. Unit Test Results

In order to examine the stability of the series within the model established for Cappadocia, the unit root tests and results used are given in Table 1.

Table 1. Unit Root Test Results

Variable	LLC	IPS
lnSP	-2.552* (0.005)	-9.704* (0.000)
lnARC	-3.921* (0.000)	-7.608* (0.000)
lnGC	-4.757* (0.000)	-10.158* (0.000)
lnFB	-2.276* (0.011)	-8.488* (0.000)
lnPS	-3.414* (0.000)	-8.393* (0.000)
lnEA	-4.597* (0.000)	-9.364* (0.000)
lnLOC	-6.028* (0.000)	-11.324* (0.000)
lnREC	-5.023* (0.000)	-9.475* (0.000)

When applying unit root tests, Newey-West bandwidth was preferred against the problem of autocorrelation, and optimal delay lengths were determined according to the Schwarz Information Criterion (SIC), and the results show that the null hypothesis that “series contain unit roots” for all variables is rejected by both tests, thus the variables are stationary in their level values. As this disables the cointegration state between variables, it has led to the choice of the panel regression method for coefficient estimation level values of series.

3.2. Preliminary Test Results

Before estimating the coefficient in panel data analysis, it is necessary to apply preliminary tests to make a choice between fixed or random effects. Therefore, the F-test was used and according to the F-test results in Table 2, it was concluded that constant effects should be preferred because the null hypothesis was rejected.

Table 2. F-Test Results

	Statistic	d.f.	Prob.
Cross-section F	1.497	(24,868)	0.059
Cross-section Chi-square	36.524	24	0.048

After selecting the fixed effects model, LM tests were performed to choose between the random effects model and pooled regression. When the LM test results seen in Table 3 are examined, it can be seen that the null hypothesis is rejected for all tests, so the random effects model should be preferred to the pooled model.

Table 3. LM Test Results

	Cross-Section	Time	Both
Breusch-Pagan	4638.039	4.884	4642.923
	(0.000)	(0.027)	(0.000)
Honda	68.103	-2.210	46.593
	(0.000)	--	(0.000)
King-Wu	68.103	-2.210	51.044
	(0.000)	--	(0.000)
Standardized Honda	80.543	-2.134	-45.650
	(0.000)	--	(0.000)
Standardized King-Wu	80.543	-2.134	-51.359
	(0.000)	--	(0.000)
Gourierioux, et al.	--	--	4638.039
			(< 0.01)

Finally, when the Hausman test results were examined to choose between the fixed effects model and the random effects model, it was concluded that the random effects model is the most accurate model for analysis, due to the acceptance of the null hypothesis.

Table 4. Hausman Test Results

	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.730	7	0.973

3.3. Coefficient Estimation Results

When the random effects model for Cappadocia is examined according to the results in Table 5, it is seen that the effects of all the factors observed on the star score of hotels are positive and statistically significant at the level of 1%.

Table 5. Panel Random Effects Coefficient Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
lnARC	0.128	0.003	32.837	0.000
lnGC	0.141	0.004	28.392	0.000
lnFB	0.133	0.004	31.655	0.000
lnPS	0.146	0.003	39.220	0.000
lnEA	0.157	0.005	27.056	0.000
lnLOC	0.158	0.004	34.053	0.000
lnREC	0.123	0.005	23.802	0.000
C	0.018	0.010	1.730	0.083
Effects Specification			S.D.	Rho
Cross-section random			0.001	0.027
Idiosyncratic random			0.007	0.972
Weighted Statistics				
R-squared	0.977	Mean dependent var		1.027
Adjusted R-squared	0.977	S.D. dependent var		0.046
S.E. of regression	0.007	Sum squared resid		0.044
F-statistic	5476.507	Durbin-Watson stat		2.047
Prob(F-statistic)	0.000			
Unweighted Statistics				
R-squared	0.987	Mean dependent var		1.456
Sum squared resid	0.045	Durbin-Watson stat		2.008

Some statistics used to measure the reliability of the empirical model are seen in Table 5. According to the results obtained, R^2 and adapted R^2 statistics show that the arguments used in the model have the power to explain changes in the dependent variable at 97.7%. Upon examination of the F-statistic, which measures the significance of arguments together, and the probability value of this statistic, it was observed that the arguments are significant when combined. The fact that the Durbin-Watson statistic, which examines the possible problem of autocorrelation in the model, is also around 2 in value, indicates that the correlation between error terms is low.

3. CONCLUSION

In this study; criteria affecting the preferences of tourists for hotels in Cappadocia, one of the important regions of Turkey in terms of tourism, were examined. Accordingly, the observation interval, which is obtained from TripAdvisor.com.tr and consists of 4-year data between “2015-2018”, was investigated using panel data methods. In this context, 25 hotels with the highest number of comments in this region were considered while the data set was prepared and the research model was analyzed with 12,000 comments. According to the analysis, when the results obtained for Cappadocia were evaluated, it was found that there was a statistically positive relationship between all the independent variables covered by the study and the dependent variable at the level of 1%. In other words, in the evaluation of the hotels in Cappadocia by the customers according to their star scores within the scope of the study; the architectural structure of the hotel, general cleaning services, food and beverage facilities within the concept, personnel and service quality, entertainment and animation programs, location and transportation facilities and the level of recommendation of the hotel by other users have a positive effect at a level of 1%. Within the scope of the study, in the evaluation of the hotels in Cappadocia by the customers according to their star scores; the hotel's location and transportation facilities, entertainment-animation programs, staff-service quality, general cleaning services, food and beverage concept offered by hotels, architectural structure and the level of recommendation by other users have a positive effect at the level of 1% and very close to each other.

If the variables are examined individually according to the order in the study model, it is seen that the hotel architecture stands out relatively less than the criteria that are important for hotels in Cappadocia within the criteria that stand out

for customers and potential customers. Due to the fact that hotels in Cappadocia have similar structures in the form of fairy chimneys and a cave concept, they are located in areas of almost the same size and close to each other, the architecture of the hotel remains in the background. Cleaning criteria are important among other criteria and stand out in terms of customer preferences as being very important in general purchasing preferences and parallel to the results of other studies conducted in literature. Another important factor, the food and beverage criterion, is examined for hotels in Cappadocia; it seems that this criterion is relatively less important than other factors. This is believed to be because hotels have a “bed and breakfast” concept and do not pay high attention to the breakfast service offered by the hotel, which customers can use for free, in terms of quality, taste, variety and presentation. The reason why the staff-personnel criterion is important for this region is that hotel employees help them in the day trip programs that tourists make, offer different alternatives, provide the necessary facilities in terms of transportation and offer different options for dining, further increasing the importance of this criterion for Cappadocia hotels. Entertainment-animation criterion is one of the most important factors for Cappadocia in terms of its importance for both adults and children separately, this criterion is one of the most important factors in making this region a center of attraction for tourists. In addition to balloon tours specific to the region, historical trips and organizations organized by hotel and private tour companies are considered to be an important criterion for choosing this region by hotel customers. Cappadocia region, located in Turkey’s Central Anatolia region, plays an important role in the holiday preferences of tourists due to its natural formations such as fairy chimneys and caves, the historical texture unique to the region and many organized activities. Most of the hotels in this region are designed as cave hotels and built without touching the historical texture, thus it is believed that the hotel’s location came to the fore from comments received from the TripAdvisor.com.tr site. The recommendation level criteria for hotels in Cappadocia is relatively less important than other factors, the criteria determined by the users or in other words, the criteria determined by the users from the comments reviewed by the potential customers, and they make their own decisions according to these criteria, regardless of the statements of “recommended” or “not recommended” in the reviews made.

Based on the results of the study, the fact that TripAdvisor, where its guests who have experienced hotel facilities and services in the past periods, share their current experience to the smallest detail, also visits potential customers and plays a highly impressive role in the purchase decision process becomes important. Considering the fact that comments and opinions of existing customers

who share their experiences greatly affect the purchasing decisions of potential customers, these comments and opinions are guiding in determining the missing or insufficient aspects of the businesses and ensuring customer satisfaction by giving priority to these points in the fastest way, in taking steps towards gaining potential customers and improving the criteria that are deemed incomplete. In addition, dynamic and bidirectional active information exchange on digital platforms provides many benefits such as establishing trust and recognition for businesses, improving brand perception, having a wide customer information network and reaching feedback to develop new products or services, and the realization of restructuring processes as a result of this feedback.

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CHAPTER 4

CROSS-BORDER E-COMMERCE (E-EXPORT) METHODS AND PROBLEMS ENCOUNTERED

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1. INTRODUCTION

With the widespread use of the internet and technological developments, electronic commerce emerged, and with its rapid growth become the rival of traditional trade nowadays. Electronic trade compared to traditional trade provides advantages for its users such as: speed, time, access to unlimited space and geographic location, and advantages such as the opportunity to compare among many products and reach cost affordable priced product. At the same time, e-commerce has caused an increase in competition in the variety of available products and on the basis of price. This has made e-commerce a more attractive area for both sellers and consumers.

Cross-Border E-commerce (e-export) on the other hand, has become the rising economic movement of recent times thanks to the widespread use of the internet, the increase in the use of social media, cultural sharing and globalization of e-commerce, which is geographically unlimited. Nowadays, the economic power of a country is also defined by the export, thus different markets and more customers can be reached thanks to e-export and economic growth can be achieved. In this study, with the literature review method, the definition of e-export, the problems encountered in e-export and the actions taken to reduce or eliminate the negative effects of these problems are included.

2. DEFINITION OF E-COMMERCE

With the entrance of information technologies in our lives, businesses have also been affected by this transformation in their fields of activity. The concept of e-commerce has emerged as the changing conditions both help to remove the limitations and give businesses another horizon for better product production.

E-commerce is defined as an application that has existed since 1965, where consumers could withdraw money via automatic cash machines (ATM) and shop by using credit cards. It is stated that these developments are followed by information systems that transcend borders and allow organizations to exchange information and conduct business activities electronically (Senn, 2000).

Until the widespread use of internet-based technologies in the early 1990s, e-commerce businesses were almost exclusively using an almost completely closed and standard form of computer-to-computer communication known as “electronic data interchange (EDI).” During this period, the term “electronic commerce” was used synonymously with electronic data interchange. However, e-commerce has begun to attract many people following the commercialization of the internet and especially the advancement of the World Wide Web and business applications. There is a conceptual distinction between traditional e-commerce and Internet-based e-commerce. Over the years, e-commerce has become completely internet-based (Fellenstein and Wood, 2000; Senn, 2000: 2 ; Molla and Licker, 2001: 132).

When the literature is examined, it is seen that different organizations make basically similar but different definitions in terms of the scope of the concept about electronic commerce or e-commerce. Based on these definitions, e-commerce can be explained as follows: According to the World Trade Organization (WTO), electronic commerce is the production, advertisement, sales and distribution of goods and services through electronic networks (Canpolat, 2001:13). The European Union defines e-commerce as “selling goods and services over

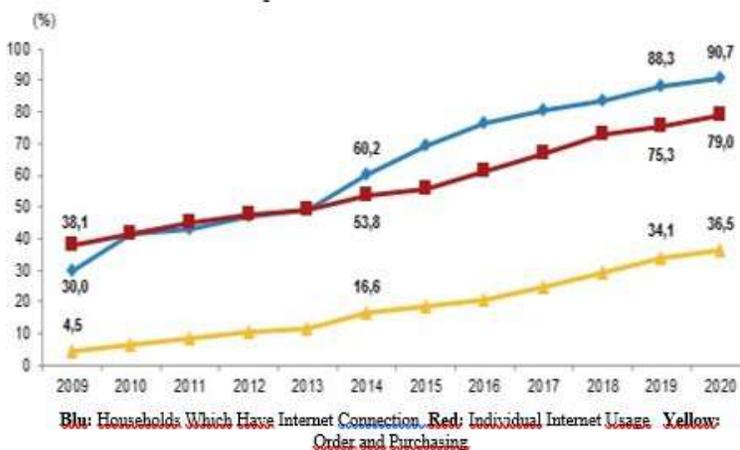
the internet?. OECD defines e-commerce as internet-based commercial transactions and divides it into business-to-business (B2B) and business-to-end-user (B2C) (Ministry of Commerce of the Republic of Turkey, 2019).

Electronic commerce is an internet-based application in which, goods and services, and the entire process from design to production and data interchange are controlled over internet networks. (Lawrence et al., 2003: 3). E-commerce is the execution of activities related to all kinds of goods and services using communication tools such as internet, telephone and fax. These communication means allow for transactions that are commercial transactions between individuals and institutions, such as marketing of the products, ordering, sales, technical support to customers, and returning of the products. Payment options include Electronic Fund Transfer (EFT), money order, credit/debit card, payment at the door and new types of payment methods such as mobile payment, e-wallet, digital (crypto/virtual) money that come into our lives with the developing technology, despite time and place as this is a type of trade that can be carried out wherever there is an internet connection (Canpolat, 2001, 13; Kızılyalçın and Gürdin, 2017, 176).

2.1. E-Commerce in Turkey and the World in the Light of Statistical Data

Under this heading is explained the position of e-commerce in the world and in Turkey with graphics/tables from the report: Development of E-Commerce, Crossing Borders and New Norms published from the collaboration between Deloitte Consulting Inc. and the Turkish Industrialists' and Businessmen's Association (TÜSİAD), and the 2020 Household Information Technologies Usage Survey conducted by Turkish Statistical Institute (TÜİK).

Graph 1: Basic Indicators, 2009-2019



Source: Turkish Statistical Institute, 2020.

The chart above has been taken from the Turkish Statistical Institute's Household Information Technologies Usage Survey for 2020. As seen in Graphic 1, there is an increase in e-commerce with the increase in internet access opportunities in households and the increase in the number of individuals using internet between 2009 and 2020. It is clearly seen from the numbers here that the factor that makes e-commerce possible is cheap and easy access to the internet. Internet has been one of the main ways to access information first, then communication and afterwards trade. The first internet connection established in Turkey in 1993 was opened to the use of 300 thousand people in 1997, as the service providers exceeded 80.

With fiber internet offered to home users for the first time in 2007, consumers can now use the internet more intensely and quickly. Chart 1, which shows the process after this stage since 2009, has continued to increase in parallel with the accessibility of individuals and households until 2013, household access and the usage rate of individuals and accordingly the product ordering and purchasing numbers have shown a trend of increase.

Again, according to the statistics of the Turkish Statistical Institute's Household Information Technologies Usage Survey for 2020; Internet use was seen to be 79.0% among individuals aged 16-74 in 2020. According to the survey, 90.7% of households have internet access from home. In the twelve-month period between April 2019 and March 2020, the rate of purchasing or ordering goods or services for personal use over the internet, which includes individuals between the ages of 16-74, is 36,5 %, with an increase of 2.4% compared to the previous year (TÜİK, 2020).

Table 1: Most Popular Online Shopping Categories

Category	Furniture, home accessories, garden supplies	Cleaning products, personal care products	Cosmetics, beauty and health products	Ordering food online or receiving catering services	Printed books, magazines, newspapers	Clothing, shoes and accessories	Percentage
	%17	%17,6	%21,1	%22,5	%26,1	%60,9	

Source: Turkish Statistical Institute, 2020

In the data in Table 1 above, the results of the Household Information Technologies Usage Survey of 2020 by Turkish Statistical Institute are mentioned. According to this research, the most used online shopping category in Turkey is clothing, shoes and accessories. The printed book, magazine and newspaper category comes second, followed by the online food ordering category.

Table 2: Top Shopping Online Categories by Gender

	Clothing, shoes and accessories	Printed books, magazines, newspapers	Ordering food online or receiving catering services	Cleaning products, personal care products
Male	%54,2	%22,5	%24,1	-
Woman	%68,5	%30,2	-	%31,5

Source: Turkish Statistical Institute, 2020

In Table 2, the data show the three categories where gender groups shop the most. Accordingly, it was determined that men and women who shop online in Turkey spend the most in the clothing, shoes and accessories category, while online food ordering has been determined as the second most shopping category in the men's group. The second place in the women's group is the cosmetics, beauty and health products category.

Table 3: Countries Which Had a Considerable Size of E-Commerce in 2018 B2C (Business to Customer)

	GDP (2018) (trillion USD)	(B2C E-commerce Market size (billion USD)
China	13.41	634
USA	20.49	504
United Kingdom	2.83	123
Japan	4.97	103
Germany	4.0	70
...
Turkey	0.766	6.1

Source: Deloitte and TÜSİAD, 2019

Table 3 compares the market rates of countries in the B2C E-commerce market. According to this table, it is seen that the country with the highest Business to Customer (B2C) e-commerce market size is China, although the USA has the highest Gross Domestic Product (GDP). However, it is striking that the UK has a larger B2C e-commerce market versus Japan and Germany, which have more GDP than itself. In the light of these data, it can be concluded that there is no tight link between GDP size and B2C e-commerce market size, but since the two countries with the highest GDP (China and the USA) also have the largest B2C e-commerce market, it can be understood that they are not independent factors.

Table 4: Broadband, Online Retail/Total Retail and Online, Mobile Shopping Rates in the World

	Country		Online Retail / Total Retail	Fixed Broadband Penetration	Mobile Broadband Penetration	Online Shoppers	Mobile Shoppers	Per Capita Income \$	Population (mn)
Developed countries	England	Average 11.1%	%17,0	%39,9	%98,5	%81	%45	\$45,7	66,4mn
	USA		13,7	33,4	136,6	77	44	62,6	328,1
	Germany		11,0	40,7	81,0	81	29	52,5	82,7
	France		8,8	42,9	85,5	71	26	45,7	65,0
	Japan		8,6	31,1	168,1	68	34	44,2	126,4
	Spain		4,6	31,6	96,9	72	40	40,1	46,2
Developing countries	China	Average 5.9%	23,7	31,8	98,1	82	74	18,1	1.396,9
	Poland		6,7	18,4	102,6	76	36	31,9	37,9
	India		5,2	1,5	35,9	74	60	7,8	1.334,2
	Brazil		7,2	14,6	96,7	68	45	16,1	209,2
	Russia		5,0	22,7	90,3	58	32	29,2	143,9
	Turkey 2017		4,1	14,7	69,9	43	30	26,9	80,8
	Turkey 2018		5,3	16,3	74,5	67	50	27,9	82,0

Source: Turkish Informatics Industrialists Association, 2019

In the data obtained from the 2019 report of the Turkish Informatics Industrialists Association, the e-commerce percentage figures in the context of countries and sectors are shown in Table 4. Accordingly, it is seen that the preference of online shopping has increased on the axis of internet infrastructure development and per capita income.

According to the table, UK ranks first in developed countries, while China ranks first in developing countries. On the other hand, the share of online retail in China's total retail has exceeded developed countries. While e-commerce focuses on online shopping in developed countries, online and mobile shopping densities are close to each other in developing countries.

3. CROSS-BORDER E-COMMERCE (E-EXPORT)

Businesses have rapidly moved their commercial transactions to the e-commerce field in order to gain more place in the market, to produce more with less cost, to be more efficient and more profitable. Technologies that are developing and being used in e-commerce enable many companies to reach apart and distant markets, while reducing marketing costs and management expenses. Increasing internet speed has led to the proliferation of online shopping users and the expansion of the international business market. On the consumer side, with the technological developments and the widespread use of smart mobile devices, online shopping has become easier and more practical as a result of the emergence of systems and technologies that will make it easier for the payments, which we can define as invisible borders, to reach beyond the border (Ding et al., 2017: 371-372) and consequently, opportunities have been created for consumers to purchase goods and services in unlimited online markets (Kim et al., 2017: 185).

The use of information technologies by businesses that can achieve success in e-commerce and operate across borders has led to the emergence of the concept of e-export. Cross-border e-commerce (e-export) is mostly realized as business-to-customer (B2C) e-commerce. Although there are companies that do e-commerce from large business to business (B2B) such as Alibaba.com, there are e-export businesses that make more retail sales in our country.

For this reason, e-export is also called micro export. Micro export is a type of trade that takes place under the Electronic Commerce Customs Declaration (ETGB). Therefore, the goods or shipment must be below 150 kilograms in weight and below 7.500 Euros in total financial value. In spite of many procedures such as finding a contracted business in the target region where classi-

cal exports are encountered and arranging export declaration and packing list; businesses can make e-export with logistics companies with ETGB license without being exposed to extra costs and procedures (Isayev and Nart, 2019, 16-17).

Cross-border e-commerce offers attractive opportunities to consumers due to competitive prices and a wide variety of products, and it is considered by businesses as a strategic tool to reach consumers (Kim et al., 2017: 185). Cross-border e-commerce usually refers to transactions between different countries or regions communicating via the Internet, e-mail or other forms. This new practice is a new international trade model that is more frequent and faster. Currently, China's e-commerce is in a period of great development in this sense. Cross-border e-commerce is a new cross-border trade model that uses electronic tools effectively. This trading model has unique advantages (Xue et al., 2016: 131). For example, Cross-border e-commerce, or e-export, enables local businesses to save on transaction costs, shorten transaction times and build international brands by minimizing intermediaries. At the same time, cross-border e-commerce accelerates the development of a new industrial structure and new economic areas. The reason for this acceleration is that factors such as information services, logistics, payment methods, security certificates, change and transformation of production and industrial organizations are a necessity in cross-border e-commerce. In addition to all these, in order for the cross-border e-commerce to show this development, the government should renew its traditional institutional mechanisms, cooperate with e-export businesses and be able to respond quickly to the needs of these businesses. When these opportunities are provided, cross-border e-commerce will be an important factor in the economic and social development of a country (Yu vd., 2020: 2).

Cross-border e-commerce transactions, which are international commercial operations, may appear as transactions subject to different laws in different countries. For this reason, customs and trade agreements between countries are important in cross-border e-commerce activities. Cross-border e-commerce businesses may face enormous financial burdens if they do not act in consideration of these agreements regarding the market and product they sell. Cross-border e-commerce, which provides SMEs with easy access to markets that are difficult to reach, is thought to bring more loss than profit if such important situations are not considered (Shanjun, 2019: 969).

According to recent research, it is stated that small companies cannot benefit from the digital transition in the European market and their institutional digital competence levels are way behind big enterprises. This causes small busi-

nesses not to be effective in their digital marketing activities. E-retailers need to effectively transfer their business strategies to the customer, using digital marketing tactics to be successful, thus they need to convince customers to shop. Digital marketing tactics do not only mean the use of online marketing platforms such as search engine marketing and social media marketing. In addition, it is important to carry out campaign-based e-marketing actions such as the use of advertising, digital and classic posters (Goldman et al., 2020: 2).

Cross-border e-commerce (e-export) activities in other regions of the world are shown in Graph 2 below.

Graph 2: Cross-Border E-Commerce Transactions in Different Regions of the World

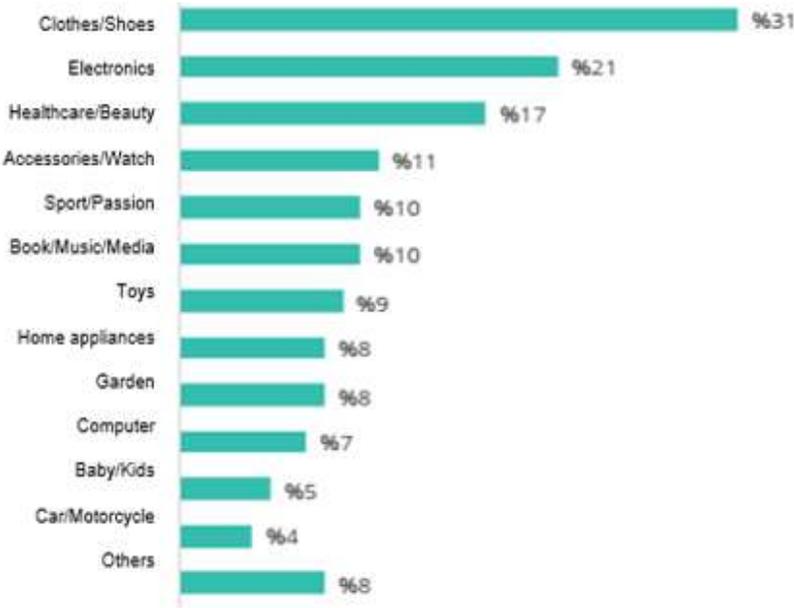


Source: Deloitte and TÜSİAD, 2019

When Graph 2, which reflects the data on e-export transactions in different regions of the world, is examined, It is seen that the Asia Pacific region has increased e-exports the most over the years, followed by the Western Europe region, followed by the North American region. However, it is striking that the transactions in the second-ranked Western Europe region are less than half of the transactions in the Asia Pacific region. However, this Graph indicates the forecast for 2020. Due to the fact that a new version of this report has not been published in 2020 and the pandemic that started in China in 2020 and spread all over the world, it is thought that it is not very correct to make an evaluation for 2020 based on this Graph.

Although our country is behind the world in terms of e-export volume, it is an advantage for our businesses as seen from the graph of The Most Preferred Categories for Cross-Border E-Commerce Transactions in the World of the report on Development of E-Commerce, Crossing Borders and New Norms issued by Deloitte Consulting Ltd and TUSIAD.

Graph 3: The Most Preferred Categories for Cross-Border E-Commerce Transactions in the World



Source: Deloitte and TUSIAD, 2019

According to the ratios given in Graph 3, the clothing and shoes category is in the first place, electronics are in the second, followed by health/beauty products. Based on this, if we consider that the sellers in our country can offer a wide range of products in the most preferred clothing / shoes category in the world, it can be said that our domestic businesses that will enter into e-export activity and will sell in these areas can achieve great sales volumes.

3.1. E-Export Methods

The methods used by cross-border e-commerce businesses are divided into three. The first is to open a business account on social media and sell in a spec-

ified market, the second is to open an account in electronic marketplaces that engage in e-commerce activities in foreign countries and have a large user base and sell to a ready-made customer base and finally, the third is that the business establishes its own e-commerce site and makes sales (Isayev and Nart, 2019: 21; Shanjun, 2019: 970). These methods are discussed in details below.

3.1.1. E-Export with Social Media Platforms

Social media, which has become an important power in every field in our age, is an important element in e-export. The area of social media, which is used extensively by the end consumer for product evaluation or recommendations, has also become an accelerating tool for e-export. Social media provides convenience in obtaining the best raw materials and semi-finished products in the way of producing quality products at low cost not only also for industrial consumers and not only products of high quality for the final consumer.

Table 5: Social Media User Rates, Online Shopping Rates Belong to Countries with the Highest E-Commerce Volume in the World

	The ratio of the number of social media users to the population	The ratio of online shoppers to the population
world	3.5 billion people	2.8 billion people
USA	%77	%65
China	%71	%46
United Kingdom	%66	%73
Japan	%61	%59
Germany	%46	%70
...
Turkey	%63	%49

Source: Deloitte and TÜSİAD, 2019

According to the percentages in Table 5, where the rates of social media users are evaluated in countries with the highest e-commerce volume in the world, it is seen that there is an organic link between social media use and online shopping. At the same time, considering the power of social media to influ-

ence people, it is considered to be an important factor for the development of business-customer relationship in the e-commerce field. In recent years, the number of people who open boutique shops and sell handmade products on social media platforms has gradually increased. Together with this it is also seen that some social media platforms have made rapid progress towards becoming an e-commerce platform by introducing a shop feature to their applications.

Selling on social media, which is one of the methods of entering e-export; Provides e-export opportunity without infrastructure and cost, as well as offering limited mobility. With this method, it is possible to gain experience in e-export activities and reach the number of fixed packages/shipments between 5 and 10 per day. However, the preparation of the page for the specified market, the necessity of a common spoken language for communication and the return processes that need to be well managed show that cross-border e-commerce from social media is not a method that will carry the business as much as expected from e-export. Entering the so-called electronic marketplaces as the next step would be a logical decision for the business (Isayev and Nart, 2019: 21-22).

3.1.2. E-Export with Electronic Marketplace

Cross-border e-commerce vendors bring their products to consumers in electronic marketplaces without having to bear large advertising and promotion costs. In addition, the e-exporter, which has recently entered the marketplace, finds itself in a tough competition with vendors who have been active in the market for a long time and have developed sales and marketing techniques. Since these vendors have been active in e-commerce activities in the said marketplace for a longer time, they provide the opportunity to significantly increase the sales performance by keeping the most desired and preferred products in their stocks in the target region. At the same time, sellers who enter a market place early are a few steps ahead of the new e-exporter against the new customer thanks to the features of their marketplaces such as product viewing, scoring, and commenting. Together with this, they also have a loyal customer base due to its long presence on the platform. Cross-border e-commerce is an environment where opportunistic sellers are also common, as there is insufficient information due to not having in-depth face-to-face communication and lack of on-site product quality control. At the end of this situation, a new seller is considered as an opportunistic seller and in general it is not going to be a preferable alternative for the customers. Customers are satisfied with their last seller which sent the order in a satisfactory level. But in the face of these challenges, in

the cross-border e-commerce, e-commerce platforms/places, offer opportunities to know the market and their lacking abilities for e-export firms which meet a large audience. In addition, these electronic marketplaces can fix the product on top by advertising. Moreover, new e-exporters can gain success on these platforms thanks to their competitive edge such as product launches and discount coupon issuance. (Deng and Wang, 2016: 6003; Isayev and Nart, 2019: 22).

After achieving good performance and satisfactory sales levels in electronic marketplaces, using this method permanently is not enough for the growth and branding of the business. Because there may be situations such as the closure of these e-commerce platforms or decrease in customer traffic. Taking into account paid commission, advertising, etc. and taking into account expenses and periods of expected payments to be received, after this point, it will make sense for the enterprise, to make e-export via its website which is referred as the third stage (Isayev and Nart, 2019: 22).

3.1.3. E-Export Through Your Own Website

Using this e-export method, experience, technical knowledge and qualified personnel are required for the success of the business. The consumer should be able to access detailed product information on the e-commerce site, be able to communicate easily with the company, and the website should have a solid infrastructure in terms of security. In addition, the design, interface and usage of the website should be adapted appropriately for the target region or market. Many cross-border e-commerce companies work with e-commerce sites where product information is bad and is prepared without considering the cultural factor. This situation also hinders the development of the business in e-commerce. In China, which is a leader in cross-border e-commerce, there are cross-border e-commerce sites designed according to their own cultural backgrounds, whose contents do not appeal to foreign customers and are not suitable for foreign use, and these sites cannot attract the attention of consumers outside the Asian market. However, as the Asia region is a region with a large population and good communication between the countries of the region, and considering the worldwide success of the Alibaba group of companies, China is seen as the exception to this situation. Considering that we live in a region with cultural differences and where there is no good communication between countries, it is extremely necessary to adapt cross-border e-commerce sites to the target market. As a result, people with different cultural backgrounds have different levels of satisfaction due to the design and content of the e-commerce site. As a

requirement of this, it is thought that establishing websites that have passed the cultural adaptation process for consumers with different cultural backgrounds will provide an advantage in regional competition and for the future in global competition (Isayev and Nart, 2019: 23; Liu and Luo, 2019: 443-446).

A cross-border e-commerce business established to appeal to many markets and meet the needs of its different customers' needs to cooperate with suppliers of goods, businesses providing logistics services, and service providers such as third-party payment platforms. Although this means high costs for the business in the short term, these investments will support the branding process and enable the business to reach a wider customer base. (Wang et al., 2020b: 73).

In the light of recent studies, it has been seen that the fast, reliable and efficient online payment methods used in cross-border e-commerce in the European Union Region are the driving force of cross-border e-commerce in this region (Gomez-Herrera et al., 2014: 93). In this context, companies that will make cross-border e-commerce in the EU region through their own website in our country should make agreements with the payment methods commonly used in the EU region and make their websites suitable for these payment methods. In this way, they can both ensure that the unknown about themselves is ignored and they can develop a relationship of trust with the customer. As a result, they can find the opportunity to reach high sales volumes.

3.2. E-Export Policies (Incentives) of the State

States and governments are an important factor in e-exports, as e-exports are partly dependent on the relations between countries. The government's positive attitude towards the seller to help on issues such as agreements to be made by governments with other states to facilitate customs procedures, legislative arrangements to facilitate transactions in their own country, investments to contribute to the development of logistics infrastructure, criminal sanctions determined to combat counterfeit products, is important and has the potential to encourage cross-border e-commerce (Ding et al., 2017: 375).

Considering the incentives of the government on e-export in our country, the Ministry of Commerce provides grants to e-commerce businesses for advertising and promotion abroad, foreign unit investment, travel for market research, and trademark registration. However, in order to benefit from these supports, it is required to be a business that employs at least one insured personnel, is registered to the exporters' union and is at least limited company. In addition, in case of participating in international fairs as a business, 50% of

the costs are given as a grant under the name of fair participation support. In addition, subject to the pre-approval of the Ministry of Economy, 60% grant support is provided for sector and country-oriented reports and consultancy services in the form of market entry strategies, market research, target audience data analysis, marketing action plan of the e-exporter enterprise. However, it is not possible to benefit from the supports effectively due to the reasons such as the long process and procedures for these supports and due to intensive efforts required. In addition, a general understanding in our country by thinking short-term and trying to abuse this resources may cause problems (Isayev and Nart, 2019: 73-76).

3.3. Problems Encountered in E-Export

Recently, more and more attention has been paid to expanding business activities beyond the borders of a single country. While sellers are looking for new buyers abroad, customers want more supplier options. In this sense, cross-border e-commerce, which is a commercial activity to sell products to customers in another country, has many difficulties (Kawa, 2017: 174). Local biases appear to be substantially the same in cross-border e-commerce as in traditional commerce. Although the costs of reaching information and customers are reduced, the market has expanded for consumers and it is easier to buy from abroad thanks to technological developments; consumers still tend to buy from the domestic market. Lack of common language, culture and environment (Gomez-Herrera et al., 2014: 93), high cost and long delivery time, different legal regulations, taxes etc. can be shown as the source of this situation (Kawa, 2017: 174).

Cross-border e-commerce, besides the benefits it provides to vendors, also confronts vendors with a tight market competition. Consumers in a cross-border e-commerce platform show different levels of interest to the products available in online stores and advertisements on these platforms due to their language, culture and different habits. Sellers who want to attract the attention of the consumer and want to arouse the purchase intention in the consumer should see these differences as an important factor. Because if consumers do not have knowledge and awareness about a product, they will not be interested in it and will not be willing to buy that product. Therefore, since no purchases will take place, if the sellers do not choose strategies and keep products or develop products that are suitable for these differences, they will not be able to increase their market share in the long term and thus, will not be successful (Zhu et al., 2019: 320).

Ding et al., (2017) have divided the problems encountered in cross-border e-commerce in their study in six groups which are: marketing, product, payment, logistics, law and regulation. In addition to these, problems experienced in trust, customs and return processes can be added.

Figure 1: Problems Encountered in Cross-Border E-Commerce



Source: Ding et al., 2017

3.3.1. Culture and Consumer Issues

Language is the first factor that prevents consumers from participating in cross-border e-commerce. In the light of technological developments, the flow of information and goods has crossed borders, but language and cultural differences have become an invisible barrier. Consequently, consumer behavior differs in countries and societies. Therefore, in the country where e-export will be made, the e-exporter needs qualified information especially about the consumer's product preferences, product delivery expectations and the payment methods used. In order to overcome this problem, they should receive consultancy services. Fast delivery in the target region and the preference of the widely used and trusted payment systems/methods in the region will reduce the impact of the problem. Because the reliability of international product delivery and online payment systems is seen as an important element in many consumers in the process of choosing the seller and making a purchasing decision. In addition, the fact that the website design is suitable for the culture of the target region contributes to the development of trust between the online customer and the seller. (Ding et al., 2017: 373; Liu and Luo, 2019: 444).

3.3.2. Marketing Problems

Language and cultural differences can be shown as the source of the marketing problem in e-export. In order to overcome this problem, it is necessary to determine a target market and apply marketing tactics for the determined market. For e-export businesses that sell in e-marketplaces, it is thought that marketing problems are reduced with applications such as displaying the product developed by electronic marketplaces, product launches, discount coupons and sales data they offer to the seller. However, businesses that do e-export through their own e-commerce site should receive consultancy services in order to get to know the consumer in the target market in order to overcome this problem, and they should be in local partnerships or collaborations for the target market. In this way, digital marketing tactics for the target market will be more effective. At the same time, social media marketing has become a better option due to the widespread use of social media today. Cooperating with social media celebrities in the target region and conducting promotional and marketing activities will positively reflect on the sales volume (Goldman et al., 2020: 4-8).

3.3.3. Counterfeit, Imitation and Poor Quality Product Problem

Another problem of cross-border e-commerce is that consumers experience trust problems with sellers due to the presence of counterfeit, imitation and poor quality products. In order to overcome this problem, the enterprise should pay attention to the quality of its products, indicate the product information clearly, and offer unconditional return and exchange opportunities. In addition, because the quality standards of some regions vary, products with the same physical quality do not see the same value and cannot enter the specified market. For this reason, it may be beneficial to carry out this research on the target market. In addition, it is thought that the effect of this problem will be reduced by carrying out effective marketing and promotional activities aimed at changing the perception of the product in the target market (Ding et al., 2017: 373).

3.3.4. Problems Related to Laws and Regulation

There are different laws and regulations applied in different countries on issues such as data privacy policy, return process, quality standard. This situation causes limitations in terms of e-export. There are concerns from the customers about cross-border shopping regarding privacy, due to different corporate

safeguards and different consumer protection laws in foreign countries. For the seller, on the other hand, since they are faced with different regulations, if they do not have sufficient information, it means that they are going either to fail or lose.

At the same time, taxes on cross-border purchases also negatively affect the consumers' choice of cross-border shopping. As a solution to this situation, a community where all e-export businesses are members should communicate their needs and requests to the state authorities. In addition, e-exporters can be supported with the convenience and advantages of trade and customs agreements between states (Ding et al., 2017: 373).

3.3.5. *Customs and Returns Issues*

Commercial and customs agreements between states are important in e-export as well as in classical exports. Product preparation and shipping processes must be carried out with great care, in accordance with the procedures that are the result of customs and commercial agreements between the country to be exported to and the country where the business operates. Otherwise, the company may get the return of the product as a result of the product being imposed on customs or the customer encountering unexpected costs. Since this problem is somewhat related to political events, the solution is to act in accordance with the procedures and to operate in markets where the legislation is easier/appropriate (Deloitte and TÜSİAD, 2019: 106-109).

Waiting for the product at customs and returning a product sent across the border means an unbearable financial burden and loss of time, especially for SMEs engaged in cross-border e-commerce. The product that is waiting at the customs and does not reach the consumer is reflected with a payment which is also waiting to those who sell in the electronic marketplaces. At the same time, a returned product completely damages the seller's pocket due to shipping costs and customs procedures. These situations cause cross-border e-commerce to be perceived as high risk when viewed from the perspective of SMEs (Gessner and Snodgrass, 2015: 87).

In order for the sellers to avoid waiting or stuck at the customs during the shipment of the product, the type and characteristics of the product must be specified in detail on the product invoice. At the same time, this situation is also important for products which are subject to customs payment. Because if the type and characteristics of the product are not specified in detail, the customs tax can be determined at the highest rate at customs. This leads to the return

of the product as it is a situation that the customer does not expect and want (Isayev and Nart, 2019: 158).

When looking at the reasons for the return in general we see that the main reasons are: the product is different from the visuals and descriptions indicated, damaged product delivery, and different product (from the one ordered) delivery (Isayev and Nart, 2019: 163);

- In order to provide more qualified information in the description, if the product sold is clothing or shoes, the measurement charts should be included in the explanation for better understanding of the customer. In addition to these, video should be added and even 360 degree recorded video should be used if possible.
- If it is returned due to damage, the cause of the damage should be investigated. If the damage is caused by packaging, more careful and robust packaging should be applied; if it is caused by the cargo company, the problem should be solved by contacting the company.
- Care should be taken in the preparation of orders and it should be checked whether the order and package content are correct.

3.3.6. *Logistics Problems*

One of the reasons why e-commerce is preferred is fast delivery. E-commerce sites serving many domestic markets such as Amazon.com premium membership system have made the next day product delivery almost standard. However, in cross-border e-commerce, if the company does not have a warehouse, unit or partnership in the region where the product is sold, it is not possible to deliver the next day. This situation puts e-export businesses back against domestic market actors operating in their targeted region, and the logistics issue emerges as a problem. In order to overcome this, ways such as making partnerships, renting a warehouse in the target market, opening an office can be used. However, many businesses will not be able to do this because activities such as partnerships in the target market, renting a warehouse, opening an office bring great costs. For this reason, the airline will be the choice of e-exporters who are new to e-export and do not have large financial resources for fast product deliver. When the preparation process of the product, customs procedures and logistics process are followed closely, the product can reach the buyer in 3 to 5 days by air. However, it is stated

that sending products by air also increases the cost and decreases the profitability. Support from government and non-governmental organizations is required to reduce this cost to a bearable level. The merger of exporters and renting warehouses, opening offices or establishing their own logistics airline companies in markets where large traffic can be taken together can reduce the effect of this problem. Another way to reduce the impact of this problem is to increase the number of e-export businesses in the country. Because a more active and growing e-export environment can also reduce logistics cost. In short, cargo aviation has an important place in cross-border e-commerce. Growing cross-border e-commerce volume leads to growth in cargo aviation. As a result, logistics costs are reduced to bearable levels (Asch et al., 2019: 2; Wang et al., 2020a: 15). In addition, organizations such as the interactive e-commerce platform developed by China in order to guarantee the basic interests of SMEs should be established with the support of the state. This platform aims to provide mail and warehouse services in overseas countries. It is stated that if similar projects are carried out, the disadvantages of SMEs in the competitive environment will decrease and as a result, SMEs can be more successful in e-export (Shanjun, 2019: 973).

As products that require physical delivery, transportation costs will continue to play an important role and consequently the logistics problem will continue. Another solution to this problem is to focus on the production of products that do not require physical delivery, such as films, TV series, mobile games and computer software that can be delivered to the customer in digital form, and to increase the export of these products (Terzi, 2011: 748).

3.3.7. Payment Problems

Thanks to cryptocurrencies, e-wallets and integrated banking systems, international money transfers can be made easily. In this way, the issue of payment does not pose a big problem for e-export. However, the preferred payment methods differ regionally. While in some countries the payment method at the door is still widely used, in another country, credit card is widely used, in another country e-wallets and cryptocurrencies are used. For this reason, businesses that will sell from their own e-commerce site should choose commonly used payment methods to reach more consumers in target markets and make online purchases more attractive. At the same time, using the local currency for pricing, calculating the taxes and fees to be paid and informing the customer contributes to the preference of cross-border shopping (Ding et al., 2017: 373-374).

3.3.8. Trust and Security Issues

The concepts of trust and security have been important concepts for e-commerce since the day e-commerce emerged. The fact that e-commerce is also internet-based, as the Internet is a channel that does not constitute trust and is full of security gaps, has caused the trust and security of e-commerce websites to be questioned. Therefore, it is also encountered in cross-border trade. However, companies that prefer to sell through their own e-commerce site encounter this problem. Because all electronic marketplaces are committed to unconditional returns and personal data security. Nevertheless, companies that make e-export through their own website can overcome this problem by using the technologies and systems used by large marketplaces and e-commerce sites (Mou et al., 2020: 169-170).

When a cross-border e-commerce platform or cross-border e-commerce seller includes elements/features/technologies that will make consumers feel seller's skills, helpfulness and honesty in their marketing techniques and advertising campaigns, they can positively affect the trust perceived by the consumer and consumers will make purchases with this seller or platform (Zhu et al., 2019: 323).

Besides all this Liu and Li (2020) in their study, suggested that reliability can be achieved with a blockchain-based security system. The core value of blockchain is to establish a trust network by creating clear and transparent rules based on algorithms to ensure transaction security and information reliability in complex environments. E-commerce platforms are environments where many data about consumers, products and suppliers are available. In today's world where data storage, management and analysis techniques are developing, the e-commerce platform can integrate data from suppliers, intermediary service providers and sub-consumers. As a result of this integration, they can obtain the required information more quickly. This gives the e-commerce platform, site, company an advantage in global competition (Liu and Li, 2020: 1).

4. CONCLUSION

Cross-border e-commerce has the power to help a country's economic development and affect its economic growth. Despite the difficulties and responsibilities of cross-border e-commerce, it is seen that e-exporters with sufficient knowledge and equipment have achieved a rapid growth and gained good profits due to the high exchange rate in our country. A company that wants to be successful in e-export

should research, learn and consider the effective elements in the target market, leaving aside the experiences of its own culture and environment. In short, it is necessary to receive training, consultancy services and do a lot of research in order to achieve success in this world where there are different actors than the local market.

As a result, it is thought that an e-exporter which conducts research on the market he has determined, takes into account the effects of language and culture, and applies digital marketing strategies well, will always be successful even if he sells on his own website or electronic marketplaces. E-export is considered as a good way for our country to reach its economic goals. The increase in number of more e-export companies will reduce some costs and will also enable some problems to be solved more quickly. In addition, as we have mentioned in the logistic problems title, if the export of goods and services that can be delivered digitally increases, these products will also make a cultural transfer, and this may cause some traditional products in our country to find buyers in the markets. Finally, e-export is thought to be the way to exist in competition in the new world, which has a great impact on the country's economic growth and development.

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CHAPTER 5

EXPLORING PERCEIVED RISKS TOWARDS SELF-SERVICE PARCEL DELIVERY USAGE

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1. INTRODUCTION

E-commerce has become a widespread phenomenon in the late 1990s and early 2000s (Mangiaracina, Perego, Seghezzi, and Tumino, 2019). The number of parcels has enormously increased due to this growing momentum. The cost of global parcel delivery reached approximately EUR 70 billion, with China, Germany, and the United States accounting for more than 40 percent of the market. In the mature markets, volumes will be expected to be double over the next ten years (McKinsey&Company, 2016).

The last-mile delivery is the last part of the product distribution to customers (Collins, 2006) with costs varying between 13% and 75% of the total supply chain cost (Devari, Nikolaev and He, 2017). In addition to being a costly operation of the supply chain, it significantly influences environmental sustainability and city logistics activities (Morganti, Dablanc and Fortin, 2014; Kedia, Kusumastuti, and Nicholson, 2017). Parallel to the increase in e-commerce volume, these concerns have undoubtedly become more visible, and they have received

greater attention in related literature. Furthermore, first-time failure delivery also made an impact on these discussions, which affected both additional cost and customer satisfaction. Self-service parcel delivery became quite popular as an alternative solution to home traditional delivery for customers and a better operational method for cargo companies. Basically, this solution requires customer participation to collect their packages from a certain parcel delivery point (POP). Thus, it decreases the number of cargo transportation movements at the last leg of product distribution because of aggregated cargos at the POP. As result, cargo companies gain benefits from reduced operation costs while mitigating environmental concerns, i.e., carbon emissions, traffic jams/ accidents. However, customers have not received the attention they deserved from both industry representatives and academicians despite playing a critical role in this new solution. Even so, consumer participation behavior is limited in literature in last-mile logistics services, especially for self-collection even though the system can only be enabled if the customer decides to allocate their resources, i.e., time, effort to use services.

Furthermore, the risks involved in online shopping have been discussed extensively but these discussions have not been sufficient for the last mile of logistics services and especially for self-service parcel delivery. Perceived risk has the utmost importance in consumer behavior studies. Many studies show that customer buying decision processes and service evaluation have been affected significantly depending on the level of perceived risk. Customers can give up using/buying the service/product or switch their decision towards a more tolerable one in the market when they perceive a certain level of risk. Hence the perceived risks of self-service parcel delivery should be deeply discussed to convince customers that these services are plausible for themselves.

The study explores the perceived risk types of self-service parcel delivery usage and its effects on the customer decision processes. The Turkish market is selected as the research context of the study. Turkey is an emerging country with a population exceeding 80 million (TUIK, 2021) and an e-commerce volume that has been expanding significantly year by year. The cargo sector in Turkey serves 7.5 million corporate and individual addresses per day offering its services to every sector (Karid, 2020). The study is designed as a qualitative research; since self-service parcel delivery services are at their stage of infancy and marketing companies have carried out limited promotional activities for these services in Turkey. The research questions are answered by fifteen e-commerce customers with a wide range of social-demographics characteristics by way of semi-structured interviews. A content analysis procedure was followed,

and 3 main themes were obtained as perceived risk types, effects of perceived risks, and behavior intention. According to the results, risks that are perceived most frequently are physical, employee service quality, and privacy related risks respectively. Furthermore, these risks affect POP attributes, i.e., security, safety, POP types, i.e., human-based or machine-based, and cargo types to be delivered. Moreover, customers' behavior intention towards POP varies, and perceived risk will not negatively affect the customers' willingness under certain conditions provided at POPs.

In the next section, the conceptual framework of the research is presented followed by data collection and methodology of the fieldwork along with the findings, results, and a brief consideration of implications and suggestions for further research.

2. LITERATURE REVIEW

2.1. Self-Service Parcel Delivery

Self-service parcel delivery is the last mile of cargo logistics, requiring participation of customers in collecting their packages from certain delivery points (POP). Customers are informed via technology-based systems when their cargos arrive at a POP. They can also track their cargo using IT-powered technologies. The POPs can be local shops, i.e., grocery, gas station, pharmacies, or automated lockers. Both provide a more convenient and extended time frame compared with traditional home delivery, and they are located at convenient locations in terms of proximity to customers' home or workplaces (McKinnon and Tallam, 2003; Morganti, Dablan and Fortin, 2014)

In recent years, self-service delivery systems have been discussed by developed countries as a solution to cargo delivery operation effectiveness/efficiency and environmental sustainability (Mangiaracina, Perego, Seghezzi and Tumino, 2019). Since the cargo is aggregated, the cargo delivery movement reduces thus decreasing carbon gas emissions and traffic jams/ accidents. (Yuen et.al.,2018). Furthermore, while local shops can earn an additional income besides generating more in-store traffic, customers reduce the risk of missed deliveries (Morganti et al., 2014). Some initiatives, i.e., DHL, Kiala, FedEx, TNT, have provided these services in Germany, United Kingdom, the USA, China, South Korea (Collins, 2006). In France, self-service parcel delivery preference accounts for more than 20% of online shopping (Morganti, Dablan, and Fortin, 2014). On the other hand, even though these systems create many benefits, their popu-

larity over traditional home delivery is limited in some countries (Yuen et al., 2018). In Turkey, self-service parcel delivery services are at a stage of infancy. Some cargo companies, i.e., PTT, Yurtiçi Kargo, and some e-commerce platforms, i.e., Hepsiburada, Trendyol have recently offered these solutions for their customers.

Self-service parcel delivery related studies in literature have mostly focused on operational efficiency and effectiveness, location selection of POPs, and its influences on environmental sustainability. Limited studies on consumer behavior are available (Kim, Park, and Lee, 2017; Chen, Yu, Yang and Wei, 2018, Wang, Yuen, Wong, and Teo, 2019; Zhou et al., 2020).

2.2. Perceived Risks

The risk concept with various aspects has been studied in many different disciplines such as finance, psychology, and insurance for decades. As a marketing concept, Bauer introduced it in the consumer behavior literature in the early 60s, and then it became widespread (Taylor 1974). In consumer behavior literature, the perceived risk is defined as a subjective assessment of the customer for purchasing a product / service with two dimensions, uncertainty and negative consequences (Dowling & Staelin, 1994; Chen and Dubinsky, 2003). Conchar et al. (2004) defined perceived risk as a process that includes 3 steps:

- framing defining risks by assigning importance weights to avoid the risk
- assessment among the choice set
- the evaluation which is related to willingness to choose with risks

Thus, the perceived risk triggers a trade-off decision making between negative and positive consequences associated with the alternatives (Roselius, 1971). Depending on the perceived level, customer buying behavior is affected making this concept noteworthy to discuss in the literature.

There are many risk types defined in literature. The most frequently studied are; financial (potential monetary loss), physical (physical harm), psychological (inconsistency with self-image), social (losing social status), time (time-wasting), and performance (not meet expected performance) (Kaplan et al. 1974; Mitchell and Greatorex, 1993; Stone and Gronhaug, 1993). Moreover, the other types of risks can be observed depending on the nature of the product/service, i.e., privacy risk (misuse of personal information), security risk (harm to person

or property safety), hygiene risk (health concern). The outweighs of the risk types are affected by some factors, i.e., product/ service categories and attributes (Chaudhuri, 1998; Dowling & Staelin, 1994), demographic variables of the customer (age, gender), using experience, brand knowledge, specific purchase occasion, purchase goals, and available alternatives. For example, while performance and psychological risks increase the resistance to using smart home services, financial and privacy risks have not significant influence on this decision (Hong, Nam, and Kim, 2020). In the light of studied by Kim, Ferrin and Rao (2008) financial, product, and information (security and privacy) risks were the most salient factors for e-commerce shopping. According to Zeithalm (1981), since the customer is more involved in the buying process, the psychosocial risk can be more observed in services. Mitchell (1999) also mentioned that there is a relationship between risk and trust. Building a strong relationship between partners will reduce perceived risks; moreover, company size, reputation, and length of the relationship also enhance it.

The important role of the perceived risk concept in consumer's service evaluation process has been illustrated in various studies in literature. As an example, perceived risk has an adverse impact on repeat purchase intention in B2C commerce and perceived value in retail shopping (Sweeny, Soutar and Johnson 1999; Snoj, Korda and Mumel, 2004). It is also stated that some of the factors mitigate the negative effects of perceived risk. It has been revealed that company reputation had a full mediating effect on perceived risk and customer satisfaction (Park, 2019) related within-hospital services.

There are also various other studies focusing on perceived risks for logistics services. Majority of these studies mentioned the use of POPs against service delivery fails. Morganti, Seidel, Blanquart, Dablanc and Lenz (2014) pointed out self-service parcel deliveries as risk relievers against the risk of missed deliveries while McKinnon and Tallam (2003), Weltevreden (2008) and Kedia, Kusumasuti and Nicholson (2017) put forth self-service parcel deliveries as a precaution for the risk of theft of parcel from an unattended delivery point (customer doorsteps).

A limited number of studies questioned whether POPs are perceived as risk sources with impact on customer behavior patterns. Zhou et al. (2020) evaluated the perceived risk with four types of risks: financial, privacy, performance, and time. Their study illustrates that perceived risk has an adverse impact on online consumers' behavioral intention of using self-service parcel delivery, and customer satisfaction. Wang, Yuen, Wong, and Teo's (2019) study results show that along with perceived convenience and functionality, security of these

points have a significant impact on the cognitive attitude of customers toward using self-service parcel delivery services. While other studies have pointed out that customers have some concerns related with using automated lockers, i.e., service/technology errors and the lockers' efficiency (Vakulenko, Shams, Hellström and Hjort, 2019).

3. METHODOLOGY

3.1. Data Collection

Interpretivist paradigm was utilized since self-service parcel delivery has not been subject to in-depth discussions in literature with regard to consumer behavior. Data were obtained by conducting fifteen semi-structured interviews with interviewees selected from among e-commerce customers via purposive sampling methods. Participants with different characteristics, i.e., education level, gender, age, and house type, were preferred to increase the validity of the research. The interviews were finalized when there were no additional ideas to enhance the study. The questions were directed to acquire information on perceived risks related with the use of self-service parcel delivery services and to enlighten the type of customer decisions affected by these risks. The majority of the interview questions were derived from the literature on perceived risk (e.g., Kim, Ferrin and Rao, 2008; Hong, Nam, and Kim, S., 2020). For example, "Do you anticipate any risk of picking up your cargo from a delivery point?", "What kinds of risks do you anticipate?", "Do these perceived risks influence your decision to use POPs?" "Do you think there will be a physical risk to your cargo at POPs?" "Do you think your time will be wasted?" "Do you have any concerns that using this service will not be compatible with your self-image or self-concept?" Interviews were conducted during January 2021 – February 2021 with 5 hours of sound recordings acquired throughout the process. The average duration of the interviews was 20 minutes.

3.2. Characteristics of Respondents

Table 1 presents findings on the characteristics of each respondent. The respondents differ in terms of age, education level, gender, and type of housing.

Table 1. Characteristics of The Respondents

Respondent	Education Level	Gender	Age	House Type
R1	PhD	Male	49	Single house/ Suburban
R2	Undergraduate	Male	63	Apartment/ Urban
R3	Undergraduate	Female	50	Single house/ Subur- ban
R4	PhD	Male	45	Apartment/ Urban
R5	High School	Female	35	Apartment/ Urban
R6	Undergraduate	Female	45	Single house/ Subur- ban
R7	Undergraduate	Male	28	Apartment/ Urban
R8	High School	Male	67	Single house/ Subur- ban
R9	PhD	Female	39	Apartment/ Urban
R10	Master	Female	32	Apartment/ Urban
R11	Master	Female	30	Apartment/ Urban
R12	Undergraduate	Male	30	Apartment/ Suburban
R13	Master	Male	32	Apartment/Urban
R14	High School	Female	21	Apartment/Urban
R15	High School	Female	20	Apartment/Urban

3.3. Data Analysis

A single researcher conducted and analyzed the interviews. The researcher repeatedly evaluated the interviews listening to the audio recordings at different time periods to increase intra-coder reliability in accordance with the suggestions of Krippendorff (2013). The researcher followed an iterative approach by revisiting previously identified themes and merging or separating them and yielded consistent results at various times. The researcher also double-checked with their participants on their intended meaning through the member check procedure by sharing the tentative summarized findings at the end of the interviews to increase credibility (Given, 2008). Furthermore, the interpretations were supported with quotations taken from transcripts, such as evidence (Hsieh and Shannon, 2005).

The data were analyzed using the 18.1.1 version of MaxQda software. A total of 341 codes were obtained under 3 main themes: perceived risk types, effects of perceived risks, and behavior intention which are presented below in Table 2.

Table 2. The Final Coding Table

THEMES		
1.Perceived Risk Types Physical Employee Service Quality Privacy Technical Regulations Time Hygiene	2. Effects of Perceived Risks 2.1. POP Attributes 2.2. POP Type 2.3. Cargo Type	3. Behavior Intention

4. FINDINGS

Three main themes, related sub-themes, figures, and comments received on obtained themes are presented below.

4.1. Perceived Risks

Seven sub-themes were obtained related to the perceived risks of using POP. Physical risk was the most frequently mentioned risk. Customers were of the opinion that others may steal their cargos at the POP, i.e., other shoppers, thieves even shop employees. The respondents considered that cargo break/spoilage may occur due to storage conditions. They also mentioned that security related risks may develop when they are collecting their packages. POPs can also be affected from attacks of vandalism.

Another frequently mentioned sub-theme is employee service quality. The respondents were concerned that since package delivery is the second job of the employee, he/she can give less attention to the cargo process, may be incompetent to run this business, and some problems related with courtesy and politeness may arise due to the hectic workload. Privacy concern was mentioned with different dimensions. Whereas some customers stated it as misuse of their personal information, others while emphasized disclosure of cargo content. Employee service quality is also mentioned together with physical and privacy risks. The respondents indicated that the risks involved may develop more or less subject to the service quality of the employees.

Technical problems were mentioned for automated lockers, i.e., overloading locker capacity, misfit cargo sizes, and technical malfunctions. Hence, they thought that their cargo could be returned to the cargo branch or it may remain locked up in the box if these problems are observed. The importance of regulations was stated for cases when cargo related problems arise. As such, it will not be clear who is responsible if the customers receive broken cargo. Time and hygiene concerns were the least mentioned risks. Lateness in the delivery process or virus contamination is also stated for these sub-groups, respectively. The perceived risks mentioned during the interviews are shown in Figure1 with quotations presented in Table 3.

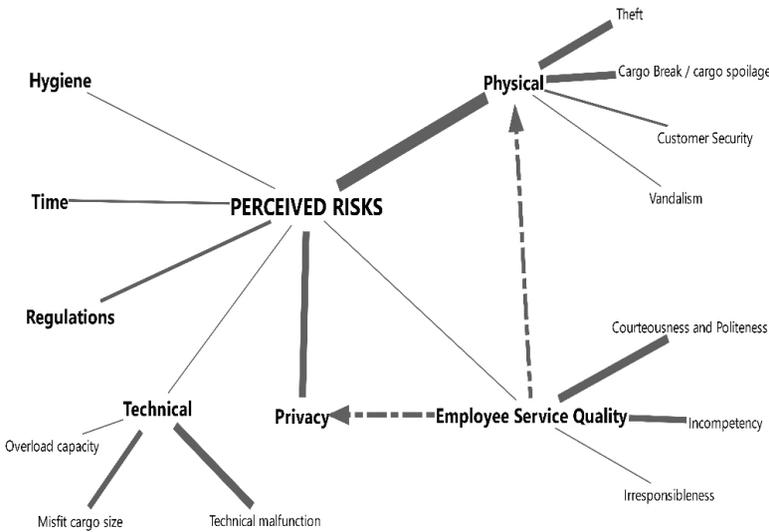


Figure 1. Perceived Risks

Table 3. Perceived Risks Related to Usage of POP with Quotations

Themes	Quotations
Physical Risks	
Theft	<p>“They can remove the lockers and even use them as raw material” (R7)</p> <p>“Tradesmen in the local shop can open my package. If there is something useful in it, he can steal it or use it for a while” (R12)</p> <p>“Employees can take my cargo, take something out of it. It would be very difficult to get angry and judge a tradesman we know” (R15)</p> <p>“After a while, we can give up completely from a shopkeeper with the problem of theft” (R16)</p>
Cargo Break/Cargo Spoilage	<p>“I wonder if the tradesman will take care of my cargo since it will be his/her second job? I hope they will not put a pickle barrel on my cargo containing electronic products” (R1)</p> <p>“For example, I bought cat and dog food. While waiting at the delivery point of my parcel, it should not be torn apart by the cats and dogs there”(R13)</p>

Themes	Quotations
<i>Customer Security</i>	<i>“Today, even the smallest things can be stolen. When I take my cargo from the delivery point, someone can see and attack me”(R6)</i>
<i>Vandalism</i>	<i>“Unfortunately, vandalism can be seen in our country. People can damage lockers or adopt this space as their dwelling and live there “(R4)</i>
Employee Service Quality	
<i>Courteousness and Politeness</i>	<i>“Employee behavior can be rude, disturbing. One of the reasons I prefer lockers is that they are unmanned” (R4) “How will they act in solving the problem, especially when there is a problem with the cargo? Could it be tension, yes. Can they be angry with me? It is very possible. Well, can I accept this, absolutely not ”(R11)</i>
<i>Incompetency</i>	<i>“If she/he does not know this system very well, she/he can give my cargo to someone else”(R3) “Will they be able to enter the correct shipping numbers or something? I have a trust problem that people cannot do their job right ”(R10)</i>
<i>Irresponsibleness</i>	<i>“If he is not doing his job carefully, he may place the wrong cargo in the lockers. Someone else may take my cargo” (R2) “It is very important for tradesmen to do their job responsibly. Some may store my cargo in inappropriate places”(R11)</i>
Privacy	<i>“A delivery point I know can gossip about my cargo to everyone. I don't like this situation; I feel uncomfortable when I think about it” (R3) “I chose small tradesmen. Tradesmen or other customers may have an idea about my cargo, I don't like the idea of others knowing what I have bought.” (R11) My personal information is written on the package and this information can be sold. To avoid this risk, there should be QR codes on the packages. In addition, they can guess what is inside my cargo, so the delivery point should definitely be an unmanned model. Reliable tradesman is very difficult to describe on paper in Turkey (R13)</i>

Themes	Quotations
Technical	
<i>Technical Malfunction</i>	<i>“There may be a problem with the lockers, I can enter the wrong password, or there may be a technical problem that is not related with me. Can customer service provide immediate support; how will it be?” (R6)</i>
<i>Misfit cargo size</i>	<i>“I don’t feel insecure towards lockers. How many different sizes of lockers can there be? Sometimes my cargo fits into my palm and at other times it may be huge. How will these cargoes fit? ”(R1)</i>
<i>Overload capacity</i>	<i>“What will happen if the capacity of the lockers is full and my cargo cannot be delivered there, will my cargo be sent to another location? (R7)</i>
Regulations	<i>In traditional home delivery services, I would have opened my cargo in front of the delivery man. So what will happen if it’s damaged for my cargo received from lockers or local shops? “ (R2)</i> <i>“If the cargo is damaged when it is delivered to you, you return it. Who will be responsible for this in the locker, this is a question mark ” (R6)</i>
Time	<i>“It will be the second job of a local shop. Will it delay delivery of my cargo too much? “ (R6)</i> <i>“Will I be able to get my cargo faster from the delivery point? Will I wait a lot? “ (R7)</i>
Hygiene	<i>“Virus contamination will increase at manned delivery points due to the pandemic; I want my cargo to be delivered to my house” (R2)</i>

4.2. Effects of Perceived Risks

Three sub-themes were obtained in relation with perceived risk effects. The decisions of customers can vary in terms of POP attributes, POP type, and cargo types subject to the perceived risks. For example, some customers prefer a human-free POP service because of coronavirus; while others are willing to use human-based choices since they are of the opinion that it will be more secure than lockers.

Some POP attributes become more prominent depending on perceived risks. Almost all customers stated that POP should definitely be a well-secured place at a secure location. As a precaution towards physical risks, well-sheltered POPs are mentioned against external environmental conditions. Furthermore, especially customers want separate places for their cargos due to privacy concerns.

Moreover, cargo type may vary subject to perceived risks. For example, some customers do not want to pick-up pricey products from POPs because of physical concerns. Others are suspicious about privacy-sensitive cargos. They do not want to deliver big cargos using POP due to the transportation difficulties from POPs to their home.

The effects of perceived risks mentioned during the interviews are shown in Figure2 with quotations given in Table 4.

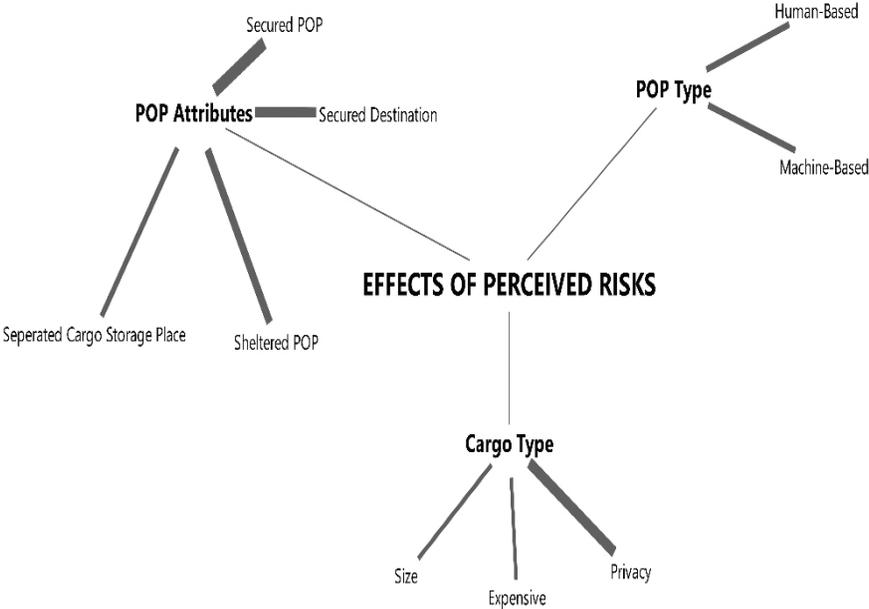


Figure 2. Effects of Perceived Risks

Table 4. Effects of Perceived Risks Related to Usage of POP with Quotations

Themes	Quotations
POP Type	<p><i>“Because of corona virus, I definitely prefer lockers” (R2)</i></p> <p><i>“I prefer lockers because employees may be rude” (R4)</i></p> <p><i>“I would like a corporate company to have a locker inside. Let the firm provide external security” (R13)</i></p>
POP Attribute	<p><i>“Since this place will be working late, I definitely expect security measures to be taken. It can have CCTV” (R4)</i></p> <p><i>“I definitely don’t want it to be in a deserted place. Otherwise I would be anxious” (R11)</i></p> <p><i>There must be a different storage area for the cargo in POP (R1)</i></p> <p><i>“It should be a sheltered place that is not affected from rain or similar conditions”(R2)</i></p>
Cargo Type	<p><i>“I only use the manned system to deliver some of my non-private sensitive cargo (R13)</i></p> <p><i>“I do not pick up my large cargo from the delivery point. How will I transport it?” (R6)</i></p> <p><i>I don’t want anything to happen to my expensive cargo. I wouldn’t prefer POP for these products (R12)</i></p>

4.3. Behavior Intention

The respondents also answered their willingness to use POP considering effects of perceived risks. Majority of the participants’ risk levels at POPs can be reduced if certain conditions are met which will in turn reduce the negative impacts of such risks. *“I would prefer to use lockers if they provide security” (R7)*

Some perceive a level of risk equivalent to traditional home delivery services. *“I think this risk always exists. In the other, it is possible to deliver to the wrong address or deliver it to the wrong person. I think there is no extra risk. I think it will be even more controlled” (R9).*

Rarely, perceived risk can be a serious holdback for some elderly respondents, *“Due to the pandemic, the virus contamination will increase at manned delivery points, I want deliveries to my house” (R2).*

In general, risks can be negligible when outweighed by the benefits of POPs. *“I think there are many benefits to using a delivery point. It poses some risks, but the benefits far outweigh the risks involved” (R14)*

5. DISCUSSION AND CONCLUSION

The study aims to define the perceived risks related with the use of POPs and their effects on the customer decision process. According to the results, the most frequently perceived risks include those involving physical, employee service quality, and privacy risks. Physical risks are frequently mentioned with many dimensions i.e., safety, security, damage. Wang, Yuen, Wong, and Teo's (2019) also observed the importance of security risks on customer behavior patterns when using these services. Unlike the literature related with perceived risk, some of the more frequently cited risks such as those involving financial, social, psychological aspects do not appear in the study. The probability of cheaper delivery for the use of self-service parcel delivery can eliminate financial risks. Moreover, customers were of the opinion that they may also contribute to the income of local shops as well as environmental sustainability which in turn eliminates social and psychological risks. Self-service parcel delivery solutions can be either human-or machine-based. Hence, the performance risk stated in the literature can emerge in two groups as employee service quality and technical risk. Vakulenko, Shams, Hellström and Hjort, (2019) reported similar results in relation with concerns on the use of automated lockers, i.e., service/technology breakdowns and locker efficiency.

Privacy is also indicated more frequently as a risk in the research findings in comparison with other risk studies. Such risks are especially mentioned in literature for online shopping. However, it has been mentioned for online shopping only as the misuse of personal information of customers. It was observed that the customers were concerned about the privacy of their cargo when local shops are used as POP in self-service parcel delivery which is different from the results of existing literature and emerges as a new sub-risk observed in the present study.

Additionally, time risk is almost not mentioned by the respondents. This can be related with the expectations of the customers that they will receive their cargo faster when they use automated lockers. On the other hand, hygiene risk is also mentioned as a barrier for using POPs. Regulation as a risk was also observed in the study. Turkey is an emerging country, and these services are at their stages of infancy. Hence, customers have many questions regarding the protection of their rights. Based on all the aforementioned results, it can be concluded that self-service parcel delivery has different service dynamics and it should be examined with significant emphasis on its unique characteristics.

Furthermore, customers have been affected perceived risks while deciding POPs type, cargo types, and desired attributes of POPs. Some customers per-

ceived local shops as riskier, while for others automated lockers were riskier. In contrast with the findings of Kedia, Kusumastuti, and Nicholson (2017), majority of the customers prefer POP for inexpensive shipments. This may be related with the issue of trust towards the POP employees or the security and safety of POPs.

In general, the risks are not affected by the willingness of the customers to use POP. This result is not in line with the findings of Zhou et al.'s (2020). It was observed that the usage intentions were affected adversely only for the elderly population due to hygiene risk. However, respondents especially underline that they expect to provide essential conditions at POPs.

Hence, especially trusted local shops are highly recommended to practitioners. POP attributes play a significant role in reducing perceived risk levels. Customers expect that POPs have some attributes, i.e., safe place, secured destinations, which are important for the location selection for POPs. Furthermore, local shop employees should be trained on cargo delivery services as well as behavior and attitudes. Customer service should be ready immediately for technical concerns. Privacy guarantee should be provided to the customers by separating cargo storage and contracting some agreements.

The most important limitation of the study was the sample size and the use of qualitative research techniques. Quantitative studies can be designed in the future with a large sample group to validate the results of the present study. Perceived risk types can be used as a market segmentation tool and customer satisfaction towards the use of POPs can be questioned with POPs and service quality. Trust and perceived value concepts can be considered as well in these studies. The attributes of POPs can be examined in more detail for enhancing the service concept by academicians.

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CHAPTER 6

AN OVERVIEW OF FEAR OF MISSING OUT STRATEGIES IMPLEMENTED BY BRANDS

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1. INTRODUCTION

In many studies, the concept of FOMO has been expressed in many ways, such as missing opportunities, lagging behind something, missing the agenda, not being aware of a social interaction, being incomplete and not staying in touch (Przybylski et al., 2013:1843). FOMO is defined as having the feeling that someone else has had more satisfying experiences than their own and as a strong desire to be aware of what the environment is doing in the virtual world (Alt, 2015: 111). FOMO is not a new concept in fact, it has been included in the lives of individuals from the past, either on the community pages of newspapers, with party photos or with holiday letters or e-mails. Although FOMO is not a completely new concept, the density and discussion of FOMO has increased significantly with the rise of technology, ie social media (Abel et al., 2016:33).

FOMO was first addressed as a marketing strategy in 2012 by Dan Herman (Aydın,2018:3). In Herman's study, it was stated that consumers are confronted

with many product and brand alternatives, they have the skills to benefit from alternatives and are afraid of missing the developments. In line with these explanations, Herman argued that FOMO-based consumption is a process. It can be said that this phobia or fear, which is thought to be a part of a process, is based on various theories such as “Maslow’s Hierarchy of Needs”, “Exclusion Theory” and “Social Comparison Theory” (Argan et al., 2018: 45).

Individuals with FOMO may tend to consume the same, better, or even more than what they observe or what others consume. In this sense, it can be said that this phenomenon is behind uncontrolled purchases. In the marketing literature, there are research results indicating that this fear is triggered by the advertisements of businesses. By giving a message that businesses perceive that goods and services are inadequate, the fear of missing out on current developments can be created in consumers (Hodkinson, 2016: 3). Although this fear of the consumer is mostly perceived as a negative concept, it can also offer companies the opportunity to turn a negative situation into an opportunity. In this sense, as a strategy frequently used by marketers and advertisers, it can appear as a tactic to activate the FOMO of the consumer with different warning advertising messages such as “do not miss” and “unmissable opportunity” (Aydın, 2018:4). FOMO has such an impact on the consumer that FOMO has been found to increase consumers’ intention to repeat purchases, visit, enjoy their current experiences, and reduce their intention to recommend experiences to others (Hayran et al., 2017:661).

FOMO often allows people to buy things. For example; a bigger TV than the neighbor’s or a vacation with friends. Because they’re all going, and the person is afraid to miss it. In both cases, people act according to their fear of exclusion. In this case, most people will surrender to the FOMO (Dykman, 2012).

When the results of marketing studies on FOMO are examined, Przybylski et al. (2013:1842) found that people with high FOMO levels have lower life satisfaction levels. In addition, the authors found that FOMO acts as a mediator in the relationship between individual differences in need satisfaction and happiness regarding social media use.

Rifkin et al. (2015:246) determined that FOMO reduces the pleasure of the experiences people experience at that moment, but increases the pleasure they expect from the experiences they are absent or missed. Hodkinson (2016:4) stated that FOMO is the most widely used marketing application in the promotion of travel campaigns. FOMO is a phenomenon that also affects consumer behavior. It has been emphasized in some studies that FOMO is associated with concepts such as the desire for additional acceptance, the desire to participate

in the event, conspicuous consumption, reputation management, and the need for self-realization (Argan et al., 2018:46).

It is observed that brands that want to interact with consumers, try to better meet the needs of the customers, increase their sales rates rapidly and ensure competitive advantage, frequently make use of FOMO strategies. In this study, it was aimed to contribute to both the practitioners and the existing academic literature gap by mentioning the methods in which the FOMO strategy was applied. In this direction, each method is explained conceptually and how the FOMO strategy is implemented in these methods in practice.

2. LITERATURE REVIEW

2.1. The Fear of Missing Out Strategy Through Content Marketing

Content in general is a compilation of ideas, topic information and messages presented in a type of written, visual or audio format designed for consumption and further dissemination over the web. Unlike data that can be defined as unprocessed, unedited facts, numbers, or statistics, content has the potential to initiate an action or interaction. Data becomes a form of information when it is organized, structured or presented in a specific context. Content also serves purposes such as informing, entertaining, emotionally engaging, influencing, educating, building trust, and transforming (Diachuk et al., 2019: 120). Content is actually the oldest form of communication in the world. Telling stories has been replaced by digital, radio broadcast and print channels, and eventually the content has come to the point where it has to change. Consumers today have more options than ever before, making competition between firms even more difficult. In addition, consumers behave much more selectively, giving businesses the message that they expect to receive the information that is right for them. Therefore, determining the target audience, finding the right story and content, and ultimately using the appropriate channels is a challenging but imperative task for businesses (Hänninen, 2015: 26).

Content marketing is a marketing approach that aims to find the product with the feature and quality that the customer wants and to provide the highest customer satisfaction. Content marketing aims to determine and purchase the product consumers want without confusing the mind of them and without pressure to buy. Content essentially consists of two dimensions; first is content prepared by businesses and the other is content prepared by consumers. While the content prepared by the businesses plays an active role in the purchasing

phase of the product, the content prepared by the consumer is promoted on the social media to reach new customers. The main purpose of content marketing is to highlight the real features of the product with text, video and information graphics. In this way, a marketing approach towards the product itself is motivated. It is aimed to determine where, how and for what purpose the product will be used, and by making comparisons with other similar products, the product that can fully meet the needs of the customer. In this way, the customer knows clearly what status and characteristics to buy the product before purchasing the product. Within the framework of this understanding, the bond established with the customer is stronger than the classical advertising concept. Other purposes of content marketing are brand awareness, customer loyalty, building trust with followers and attracting potential customers. In addition, content marketing includes purposes such as communicating with customers, increasing sales and web page traffic (Karkar,2016:335).

Content marketing elements consist of “valuable content” and “content marketing”. Valuable content emphasizes the feature, usage pattern, innovative structure and difference of the product to be sold by businesses, while content marketing deals with where and how (social media, blogs, web pages and design, etc.) this valuable content will be presented. Content marketing formats are constantly changing as new tools are launched for creating, publishing, and sharing content and as the popularity of others declines. In addition, new functionality is added to the content publishing tools every day. Gunelius (2011:17) divided content marketing types into three groups as long-form (content longer than a few sentences), short-form content marketing (content that does not contain more than a few sentences), and chats / sharing (conversations and comments about posted content) (Gunelius, 2011:17). On the other hand, the contents can be presented in a wide variety of formats such as blogs, infographics, slides, case studies, technical reviews, e-books, videos, tests, picture (Weerasinghe, 2018: 218).

According to the data obtained from researches on consumers, it is seen that the effect of content marketing signals on customers is more effective than other traditional advertising types (Swieczak, 2012). A successful content marketing strategy can facilitate relationship building and develop a sense of community that fosters ongoing commitment to the brand. It can allow to position the business as a thought leader and authority in its industry. It provides the business with the opportunity to sell its brand and at the same time provide value and insight to the target audience. Content marketing supports interests from online users, then feeds them with useful content and finally converts vis-

itors into potential customers. Therefore, content marketing is very important for businesses in approaching and connecting to the relevant market by enriching the interaction between the business and customers at every stage of the purchasing journey (Mai, 2020: 20). On the other hand, it is possible to list the difficulties of content marketing as producing interesting content, measuring content effectiveness, measuring the continuity of the content, measuring the return on investment, lack of budget and producing content in various formats (Smirnova, 2019: 13).

Brands can create a FOMO strategy through content marketing. In this sense, for example, it can create content that indicates that the product promotion will end in a very short time. Or, brands may use content that creates the perception that the product is about to end. Another way that can be used with FOMO is to ensure that content is created by users. In this way, social proof is provided for those who have not yet used the products. This will increase the desire to use the product. Similarly, the bandwagon effect is created by creating content that the masses use the product. This will cause people who do not use the product to enter fear of missing out psychology in this way. Consumers who want to avoid loss will tend to buy the product with it.

2.2. The Fear of Missing Out Strategy on Omni-Channel

Channel term refers to customer touchpoints or tools through which businesses can interact with customers. Marketing channels are the contact and communication points where customers and businesses interact. There are basically four channel strategies implemented by brands. In the single channel strategy, the general trend of retailers is to distribute products from a physical location over only one channel. For example, an electronics retailer sells its products and services through only one channel (Zhang et al., 2010:130). Cross channel integrates multiple channels, allowing customers to move or collaborate between channels (Hure et al., 2017:317). Multi-channel is the distribution strategy of the enterprise, and products and services are sold using more than one channel independent from each other. The multiple channel types that the business tries to reach its target market segment indicates that it uses multiple channels (Zhang et al., 2010:130).

Retailers provide a shopping experience to consumers in many channels such as physical stores, online sales, mobile applications, social networking sites, customer support lines, e-newsletters, and catalogs. It refers to a multi-channel marketing strategy. Therefore, the use of many channels by retailers in sales

can be defined as multi-channel marketing (Rigby, 2011:67). This understanding of marketing also expresses a communication strategy that can reach the right target audience through appropriate channels. Today, many big brands have started to turn to multi-channel marketing strategy. The appearance of a brand's advertisement on both television and social media is an indication that the company has adopted a multi-channel marketing strategy. All processes, from researching a product on a smartphone, reading the reviews about the product online in a different time period and putting the product into the basket, reviewing the product in the physical store in a different time period, and purchasing the product in the basket online, are the indicators that the consumer follows the multi-channel structure (Aydın and Kazançoğlu,2017:59).

As can be seen from the multi-channel strategy, the shopping experience of today's consumers does not end where it started and can continue in all shopping channels. However, consumers generally want to make a sustainable shopping between all communication channels without interruption, they expect the same experience in all channels, and they want to spread their shopping experiences to different channels and broad times. These demands of the consumers have revealed the omni channel strategy. With the emergence of the omni channel strategy, retailers have started to switch from the multi-channel strategy to the omni channel strategy (Piotrowicz and Cuthberston, 2014:8). Omni-channel is defined as the synergetic management of many existing channels and customer touch points between channels to provide the best customer experience. Omni-channel management includes physical stores and digital channels. Omni-channel is where customers meet with vendors from physical stores to online stores to social media. In the omni-channel strategy, the retailer tries to direct and increase the customer's purchasing through many channels by controlling the data (Verhoef et al., 2015: 177).

Unlike the multi-channel strategy, the omni-channel strategy focuses on the customer and aims to provide him with a perfect experience. While consumers experience an interruption between physical and online stores while shopping in the multi-channel, in the omni-channel, consumers can move freely between all channels in a single transaction (Melero et. al., 2016:22). While multi-channel marketing refers to capturing the consumer in any channel, in the omni-channel strategy, marketing refers to the integration of all channels and the support of physical channels with digital channels. Therefore, in the omni strategy, all distribution points are presented in an omni way as part of a single design (Aydın and Kazançoğlu,2017:60).

Among the basic applications of the omni-channel strategy, which can also be considered as the combination of digital channel and physical store management; the ability to use discounts in the same way in all channels, integration of all customer-related data, pricing consistency and the same variety of goods / services. Omni-channel customer benefits from many different channels in a single purchase transaction (Li et al., 2015:27).

One of the most important features of the omni-channel is that customers make their purchases of products and services through the channels they prefer. Shopping is multidimensional and customer centricity is the essence of the omni-channel (Ramadan, 2016:32). Thanks to the omni-channel strategy, customers can make a single purchase independently and without interruption, regardless of a specific channel, and reach the product. One of the most important advantages of the omni-channel strategy is that it can serve customers with different needs (Bell et al., 2014:361). With this strategy, since customers do not depend on just one channel, they can reach the product more easily, remove the pressure of the salesperson, take control in shopping, benefit from discounts in the same way in all channels, see consistency in product / service diversity and prices in all channels (Beck and Rygl, 2015:172). In short, the omni-channel customer can benefit from many different channels in an integrated way during a single purchase transaction.

It can be stated that brands can effectively benefit from the FOMO strategy in their omni-channel approach. As a matter of fact, brands can only carry out promotional activities specific to that channel or produce content that can only be found on that channel in order to increase the rate of use towards one of the channels they have used. In this way, the FOMO strategy will be activated and entering the desired channel or purchasing products from that channel will be increased.

2.3. The Fear of Missing Out Strategy with E-Mail Marketing

The concept of e-mail marketing is marketing efforts carried out with the use of e-mail tools. Within the framework of marketing science, there are three types of electronic mail message content. Businesses should develop strategies by distinguishing these three groups in the application of email marketing. The first of these is messages for the purpose of communication, this feature constitutes the first usage purpose of electronic mail. The second is informational messages. Naturally, hidden advertising is used in these messages. The third is the direct advertisement content e-mails. These types of messages are used

purely for purposes such as highlighting the product, announcing an important date such as opening, informing about campaigns, and prompting for purchases (Martin, 2003: 293).

Emails sent by businesses to existing and potential customers are divided into 8 types. The first of these is permission-based e-mails. These are the emails that consumers prefer to subscribe to. The purpose of this type of email newsletter is to build brand loyalty and also to share business / product updates. The second is transactional emails. These emails are automatic notifications such as welcome emails, shipping notifications, order confirmations, password reminders and purchase receipts. These emails are used to convey to users that their transactions have been properly executed. The third is direct emails. These are sent purely for the purpose of delivering promotional messages, usually to potential consumers who have not registered to receive these emails. E-mail addresses were purchased or shared from a third-party business. The fourth is the press release (Kelly, 2018:20). These focus on a single message and are designed to entice readers to visit the business online or offline. The fifth is the catalog email. These focus on pricing, images, and short descriptions. This form is similar to the content of hard copy catalogs. The sixth is radio and television e-mail. These types of emails are intended to deliver a promotional message. The seventh is the e-mail newsletter model. These are a periodic message aimed at developing a long-term relationship between the customer and the brand. These types of emails are often sent to customers who share a common interest with product and business news. It interacts with subscribers by offering readers added value and is generally more personal and informative. The last e-mail type is the trigger e-mails. Trigger emails are emails sent in response to a customer action (e.g. order confirmation mail) or event (e.g. a birthday email with a coupon) (Gedik,2020:479)

If businesses that carry out e-mail marketing activities are not identified as spam and want to achieve success, volunteer members should be waited for the customer list, customers should be easy and safe to leave the list, messages should be tailored to customers, personalized mail applications should be focused on and content should be created accordingly, the frequency of sending e-mails should be adjusted correctly, the content and message sent should be checked, the mails that cannot be reached at the desired address should be cared for and every opportunity should be used to make a lasting effect (Uydacı,2004:80).

From a commercial point of view, the popularity of email as a marketing communication tool can be attributed to the benefits it brings. It's convenient, easy to use, highly effective as a way to engage with large audiences, sell to them

and turn them into customers. Messages can be selectively targeted and response rates make e-mail cost-effective when compared to alternative methods of customer communication (O'Connor, 2008:43). Businesses frequently benefit from e-mail marketing for purposes such as developing customer relations and brand loyalty, acquiring new customers, emphasizing strengths towards competitors, increasing online sales, creating a brand, increasing revenues, promoting new products, presenting promotional offers to existing or potential customers, informing customers about some changes (Budac, 2016:307).

Similarly, e-mail marketing is a very effective tool in applying the FOMO strategies of brands. In this context, special campaigns for subscribers who allow the brand to send e-mails should be highlighted in a way that creates a perception scarcity and these campaigns should be delivered to subscribers via e-mail. The FOMO strategy can also be implemented by emphasizing that they are about to miss the product or opportunity by sending an e-mail to the subscribers who have added the product to their basket online but left the online shopping site without purchasing the product.

2.4. The Fear of Missing Out Strategy Through Influencer Marketing

With the introduction of Web 2.0 technology in our lives, people who are in the position of consumers have started to become producers. In this context, today people are both influenced by new media tools and placed in a position to influence other people. Consumers using new media environments have started to follow other people through social media tools in line with their likes, wishes and needs. At this very point, brands aim to successfully impress consumers by applying to people who have a high number of followers, who are trusted and admired, to promote their products or services. This marketing method used today is called influencer marketing. Influencer marketing is a new marketing approach. This marketing approach deals with the most common sales actions among potential customers and is understood with those who are attracted to consumers during the decision-making process. In influencer marketing, these people are called “influencers”. In the sales process, the influencer is as important as the potential consumer (Brown and Hayes, 2008:11). Ads are preferred by institutions to gain a positive reputation on behalf of brands and to increase sales rates. In this way, the interest and awareness of the consumers about the product or service will arise. In this context, influencer marketing is a similar contracts with ‘influencers’ to gain the attention and awareness of consumers with the concept. (Lincoln et al., 2015:8).

It is possible to find the source of the concept of influencer in Katz and Lazarsfeld's (1955:23) "Two-Stage Communication Model". The model, which is accepted as the pioneer of interpersonal impact studies, mentions the existence of opinion leaders who mediate the flow of information between a source and a buyer. The function of these opinion leaders is to interpret and then convey the meaning of the media messages to other media users (Aktaş and Şener, 2019:401). However, in today's digital society, physical presence is no longer the only determinant of personal interaction. This has taken place by closely connected online communities via the internet rather than geographic area (Stubb, 2019: 12). In recent years, new types of celebrities in the digital world and online platforms have gained popularity, such as bloggers, vloggers, and instafamous people, also known as influencers or celebrity endorsers. Compared to traditional face-to-face opinion leaders, digital influencers offer wider reach through their social networks and are powerful stimuli of word-of-mouth marketing (Braatz, 2017: 6).

It is possible to divide influencers into two as micro and macro influencers. Macro influencers have a large audience and do not have detailed information about the characteristics and trends of their followers. Micro influencers, on the other hand, have a smaller number of followers, but are people who have a stronger communication between them and are directly influential on the social graph of the consumer. Influencers, which have become very effective in recent years, significantly affect the purchasing decision of the consumers, at the same time they take the responsibility on the consumers (Brown and Hayes, 2008:49). Influencer marketing consists of three components: relevance, reach, resonance. A relevant influencer shares content about his business and industry. The number of people that the business can potentially reach with its target market. Resonance is the potential level of interaction that the influencer can create with a brand-related audience. Influencers act as the final link between the brand and the consumer; Thanks to their honesty and openness to consumers, they have high social clout and credibility, which is what makes them successful. However, influencer marketing is not just about reaching large numbers of people; It's about reaching the right people. Getting content to the right people is more important than reaching most people (Biaudet, 2017: 11).

Considering the reasons why influencer marketing has become so important for brands, it is seen that there are other factors besides creating an experienced and sincere opportunity for new generation consumers. In particular, in campaigns carried out with influencer marketing, brands have provided the opportunity to capture an instant relationship and insight with their target

audience. In addition, brands have the opportunity to reach the niche audience they want to affect more easily, unlike traditional advertising, with influencer marketing (Alikılıç and Özkan,2018:45). As Yurttaş (2010: 114) stated, influencers provide very strong advantages for brands when used correctly. Because, the power of a brand is revealed by its interaction with the consumer. These influencers create a bond based on trust, as they act independently of corporate interests. In this direction, the instant sharing of content created by influencers enables brands to reach their target niche audience at the right time. In addition, influencer marketing does not only reach the audience in the right conditions, but also provides the opportunity to interact with consumers belonging to many sectors, from healthy life to nutrition and automobiles, apart from the popular fashion, sports, cosmetics and entertainment sectors.

Today, consumers prefer to get the opinions of other consumers and influencers in order to make an informed decision. Therefore, influencers now play an important role in forming consumer opinions about a brand's products or services. On the other hand, while influencers are used for customer acquisition and brand engagement, identifying the right type of influencer that will have the strongest impact on a particular target group by promoting the right brand message remains a challenge (Chopra et al., 2020: 2). Although they have these difficulties, brands can effectively implement FOMO strategies through influencer marketing. In this context, discourses with the theme of loss avoidance can be realized by influencers, the perception of famine can be created on the target audience by influencers, and in addition, influencers can be used by providing social evidence. In this way, FOMO strategies will reach a large audience in a very short time at a very low cost. Ultimately, the brand will have achieved its intended goals through FOMO strategies.

2.5. The Scarcity Principle as A Component of The Fear of Missing Out Strategy

Scarcity is one of the factors affecting people's reactions to commodities. In this regard, the issue of scarcity becomes more relevant for marketers and workers of consumption psychology, such as the supply of consumer goods, in daily life. The scarcity effect is controlled through the need for cognitive closure, which is the familiarity of the product, avoidance of uncertainty, and motivation to make quick decisions. Scarcity is defined by the availability of limited resources and competition in terms of demand. Scarcity effect is expressed as a strong social impact principle used to increase the subjective desire for products (Jung and Kellaris, 2004: 739).

Commodity Theory, Theory of Psychological Reactance and Scarcity Principle are widely used to explain the concept of scarcity. According to the Commodity Theory, as the accessibility to the product decreases, the value attributed to the product by the consumers increases; that is, when the product is scarce, it becomes important for the consumer. According to the Theory of Psychological Reactance, when free choices are restricted or threatened, the need to protect the consumer's freedom kicks in and leads to more desire for products than before. The theory emphasizes that consumers tend to value scarce products more and react psychologically to purchasing. If the consumer sees the freedom to access and choose the product in danger, psychology reacts to this situation (Burke et al.,2008:379).

According to the scarcity principle, scarcity perception messages are divided into four as limited amount, limited duration, rarity and censorship. Limited quantity means that the product cannot be obtained due to reasons such as production, distribution or stock. That is, it may have been produced or supplied in limited numbers. In the case of limited duration, there is no obstacle in the supply and demand of the product. However, the sale of the product is limited to a certain week, day or time. Rarity is the scarcity situation that occurs when the product is unique and cannot be reproduced. Censorship includes products that are banned or blocked from access. Consumer response to the product in the event of censorship is higher than it was before the product was banned (Cialdini, 2012:294) Consumers' perceptions of quality and monetary sacrifice in the event of scarcity may react differently depending on the relative price level and information processing motivation. In this regard, scarcity results in contradictory effects in terms of the individual's ability to process information. These results lead to a stimulation that an individual hinders his / her ability to process information. In addition, it increases the motivation and effort to process this information (Suri et al., 2007: 90). Scarcity effects do not occur if consumers believe that scarcity is created by accident or by non-market forces, such as a missed order or a failed delivery. (Parker and Lehmann, 2011: 144).

In practice, marketing managers use messages that emphasize that the product is too little in stock, excessive demand, limited and scarce so it will run out or the attractive opportunity will be valid for a certain period of time to increase demand. Marketing managers use scarcity attractiveness to increase consumers' ability to take advantage of market opportunities (discount, future absence). For this reason, marketing managers today benefit from the perception of scarcity in order to achieve their goals. Salespeople and advertisers use the scarcity appeal to prompt consumers to buy immediately (Ustaahmetoğlu,2015:161). In

this context, the perceived value of the product is high, the product is expensive, the product represents a high status, and shelf-based scarcity practices are among the strategies applied to increase the attractiveness of the scarcity and provide consumer preference. (Parker and Lehmann, 2011: 144).

In addition, marketers often use scarcity messages in product promotions to mobilize consumers. Messages that emphasize the limited availability of an advertised product are called scarcity messages. Since restricting the opportunity to own or experience a product causes loss of freedom, consumers exhibit the behavior of eliminating the loss of freedom and therefore tend to desire the objects on which these restrictions are imposed (Aggarwal et al., 2011:22). Aggarwal et al. (2011:22) analyzed the effect of scarcity messages on purchase intention with the competitive factor between consumers and found that scarcity messages are more effective in symbolic products than functional products, and consumer competition mediates the effect of scarcity messages on purchase intentions. In their study, Jung and Kellaris (2004:744) reported that the scarcity signal is more effective if the customers are not familiar with the scarce product. The expressions that create a scarcity effect on the consumer can be as “the last 10 products”, “the last 5 hours from this price”, “Valentine’s Day special price”, “the price valid for the first 50 customers”, “only 20 pieces of this product were produced” (Ku et al., 2013:1316). Numerous studies similar to this have demonstrated the positive effect of scarcity messages on purchase intention.

All of the famine perception methods mentioned above are among the most frequently used methods in FOMO strategies. Because the perception that a product is about to run out triggers the fear of missing opportunities in the consumer and directs him to buy the product immediately. In order to trigger this, brands can show the remaining number of products, create message content that the product is decreasing, make special campaigns for a limited time period and emphasize that the product is produced in a limited number. All of these can lead to immediate purchase of the product with the FOMO effect in the consumer.

3. CONCLUSION

Businesses have to improve their goods and services and gain a permanent place in the consumer mind in order to strengthen their brands. Therefore, the point that needs to be emphasized is the fact that businesses that establish a trust-based relationship with consumers create strong brands. In order to build a strong brand perception in the consumer mind, businesses must create results that

contain associations that give confidence to the consumer. In today's competitive conditions, all kinds of situations where consumers are active are important to create a positive perception for brands and to increase both sales and brand loyalty. One of these elements is FOMO. FOMO in its simplest form expresses the fear of missing something, and if brands can effectively manage this fear in the consumer, they can achieve competitive advantage more comfortably.

In this study, it is aimed to contribute to both the practitioners and the existing academic literature gap by mentioning the methods in which the FOMO strategy is applied. In this direction, each method is described one by one conceptually and how the FOMO strategy is implemented in these methods in practice. In this context; content marketing, e-mail marketing, omni-channel marketing, influencer marketing and scarcity principle are explained on the basis of FOMO strategy.

Since the literature on FOMO is not yet sufficient, it is believed that the study will contribute to the literature. In this context, with the study, it can be understood more clearly how brands can turn the fear of missing out into an opportunity. It is thought that the study also contributes to the practitioners. In this sense, it can be argued that brands can reach suggestions on how to implement FOMO strategies through content marketing, e-mail marketing, omni-channel marketing, influencer marketing and scarcity principle through this study. In summary, in the study, it is thought that brands will experience an increase in their sales in the short term by acting in the context of the bandwagon effect, social evidence, werther effect and the Scarcity principle and by presenting the content that creates FOMO effect on the right channel and with the right influencers.

In future studies, answers can be sought to the questions of which of these methods are more useful on purchasing and which one increases brand loyalty more. For this, comparisons can be made between variables such as methods, demographic data or consumer personality styles.

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CHAPTER 7

A RESEARCH ON SAFFLOWER (CARTHAMUS TINCTORIUS L.) IN THE VEGETABLE OIL MARKET AND THE FUTURE OF SAFFLOWER IN TURKEY

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1. INTRODUCTION

In the world and Turkey, together with climate change, drought has started to occur more frequently in recent years (Aydogdu, 2019; Partigöç & Soğancı, 2019; Turan, 2018; Türkes, 2012). With these changes, the perception of risk has started to emerge in farmers (Aydogdu, 2016b, 2019). This situation has adversely affected the economy, rural development, and welfare level in many parts of the world. Its most important impact is the risks posed by nations to food security (Sevinç, Aydoğdu, Cançelik, & Sevinç, 2019). Regardless of the level of development, against climate change and drought, in all countries, various measures and drought action plans, especially for agricultural irrigation, have started to be made. (Aydogdu, 2016a; Aydogdu, Sevinç, Cançelik, Doğan, & Şahin, 2020). These plans include the efficient use of water, water

management, and creation of a drought-resistant crop pattern (Aydogdu & Yenigün, 2016).

Safflower is an annual plant resistant to drought and its usage area is quite diverse. Its flowers can be used as food and fabric dyes (Fernández-Martinez, del Rio, & de Haro, 1993; Şahin & Taşlıgil, 2016). Since the unsaturated fatty acid ratio of the oil obtained from safflower seeds is high, it is of great importance for human health. When compared with sunflower oil in terms of unsaturated fatty acid ratio, the unsaturated fatty acid is 86% in sunflower, while this ratio is around 90-93% in safflower (Babaoğlu, 2006). On the other hand, safflower cossette can also be used as animal feed (Şahin & Taşlıgil, 2016). Feed is one of the most important cost factors in livestock and it has a share of around 70% in the total cost (Aydogdu & Kucuk, 2018; Binici, Zulauf, Özel, Sevinç, & Işgın, 2013). The cossette of the safflower plant, which remains after the oil is taken, is used as feed in livestock because it contains 22-24% protein (Babaoğlu, 2006). In this sense, safflower is a multi-purpose one-year oil plant that can benefit from its flowers, seeds, and cossette.

According to the researches, it has been determined that safflower oil is nutritionally close to olive oil due to the oleic fatty acid it contains. On the other hand, the oil obtained from the safflower plant can also be used in the production of biodiesel. In addition, the high content of linoleic acid contained in safflower oil is also used in the paint industry in the industry as it is quick-drying oils (Babaoğlu, 2006; Coşge, Gürbüz, & Kıralan, 2007; Singh & Nimbkar, 2007). There are thorny and thornless varieties of safflower plants and it takes about 4-5 months to mature from the sowing. During harvest, the flower petals dry completely, the grains turn white and the leaves turn completely yellow and brown. Harvest can be done with a combined harvester and the average yield per decare can vary between 100-400 kg. All tools and equipment used in barley and wheat farming can also be used in the cultivation of safflower plants. This situation is seen as an advantage in terms of widespread cultivation areas (Anonymous, 2015; Coşge et al., 2007; Fernández-Martinez et al., 1993; Kayaçetin, Katar, & Arslan, 2012; Singh & Nimbkar, 2007). This situation is seen as an advantage in terms of expanding the cultivation areas. It is known that the origin of the safflower plant in South Asia, then it was cultivated in the Middle East region and Mediterranean countries (Babaoğlu, 2006; Singh & Nimbkar, 2007). In Turkey; there are three registered safflower types as Remzibey, Yenice, and Dinçer (Anonymous, 2015).

Fats are important foodstuffs in the healthy diet of living things, some of them are found in foods and some are obtained from oil seeds (Coşge et al.,

2007; Şahin & Taşlıgil, 2016). The seeds most commonly used in the oil production in Turkey sunflower, soybean, cottonseed and canola. Poppy, peanut and hemp are among the oil seeds that are not used in oil production, although they are grown. Safflower is an oil plant that has been on the agenda for years but is not widely used in oil production and is not widely grown (Onat, Arioğlu, Güllüoğlu, Kurt ve Bakal, 2017; Şahin & Taşlıgil, 2016).

Turkey, in terms of meeting the needs of vegetable oil, is a country that literally foreign-dependent. This situation has provided strategic importance to the production of oil crops. The Council of Ministers' Communiqué, issued in 2006, covers the production supports of oilseed, which is the vital water of the oil sector, as well as cotton production. In this context, safflower production was first included in the deficiency payment in 2006 (Anonymous, 2006a, 2006b).

Within the scope of 2020, agricultural support payments in our country, 17 TL / decare diesel oil, 4 TL/decare fertilizer support, 55 Kr/kg deficiency payment support, 4 TL/decare domestic certified seed use support, and 0.50 TL/decare foreign certified seed use support are given. In addition, it was decided to pay 40 TL for Soil Analysis Support (TL/Sample) and 10 TL for solid organic-organomineral fertilizer support (Anonymous, 2020).

According to 2020 FAO data; only 20 countries in the world cultivate safflower. The first 20 countries in the world in terms of safflower cultivation areas are given in Figure 1.

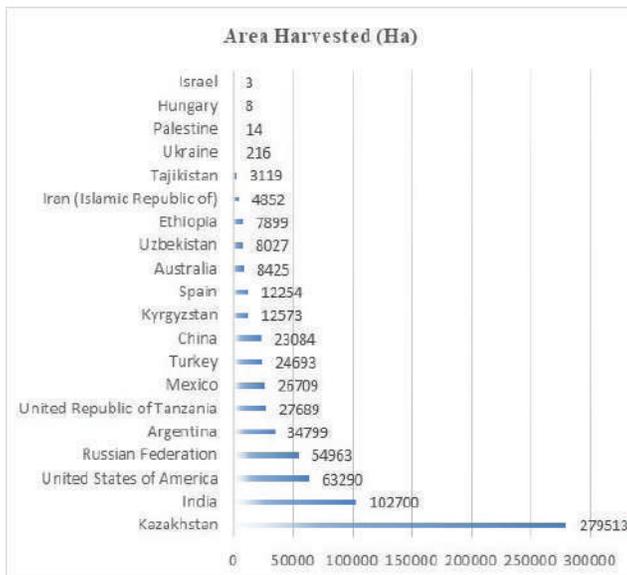


Figure 1. Top 20 Countries in the World Safflower Cultivation Area in 2018 (FAO, 2018)

The production amount and location of safflower plants in our country vary according to the natural conditions and the production amount and cultivation area vary from year to year and depending on the climate. According to 2018 FAO data; Turkey ranks 8th in terms of safflower cultivation area (FAO, 2018). Depending on the globally increasing energy demand, the use of biodiesel is becoming more widespread, so the cultivation of biodiesel-derived plants is encouraged and its importance is increasing (Şahin & Taşlıgil, 2016).

FAO's latest data on safflower belong to 2018, and the top 20 countries in terms of safflower production amount in the world are given in Figure 2.

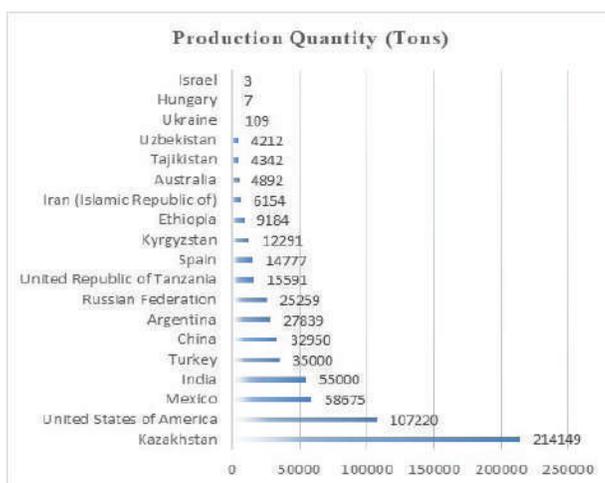


Figure 2. Top 20 Countries in World Safflower Production Amount in 2018 (FAO, 2018)

According to FAO data; In 2018, a total of 62 7655 tons of safflower were produced. The average production value of the first 20 countries in Figure 2 in 2018 was calculated as 31 383 tons. Turkey's safflower production amount is 35 000 tonnes in 2018, production is above the world average. Turkey ranks 5th in the world in terms of the amount of safflower production (FAO, 2018).

In this study, by using secondary data, which in the various reports and databases related to safflower production in Turkey (cultivated area, production amount, yield, market price, etc.) was found out the situation and carried out predictions for the future.

2. MATERIALS AND METHODS

In the study, safflower production amount (ton), production area (da), and yield (kg/da) between 1961-2020 data obtained from FAO and TURKSTAT databases were used. ARIMA (p, d, q) models, also named Box-Jenkins, were used to make 3-year predictions for the future (Stock & Watson, 1988).

The processes encountered in practice are not static as they involve one or more of seasonality, conjuncture, trend, and random fluctuations. The stabilization of such time series, the application of a certain number of Autoregressive (AR) and Moving Averages (MA) models together is called the Autoregressive Integrated Moving Averages Model (ARIMA) and denoted as ARIMA (p, d, q). Here by p = the degree of the AR model, q = the degree of the MA model, and d = represents the difference taken to make into stationary (Box, Jenkins, Reinsel, & Ljung, 2016; Palabıçak, 2019; Stock & Watson, 1988). Box-Jenkins method is a successful method used for predicting the future of univariate time series. Box-Jenkins method accepts time-dependent events in a random structure and considers autocorrelations among the data most effectively (Palabıçak, 2019).

Safflower producer prices between 2001 and 2020 were obtained from the database of TURKSTAT and used. Trend analysis (least squares method “cubic”) was used to make a 3-year future forecast for prices. Trend analysis is the most widely used and oldest method for analyzing time series. In case of high fluctuations in time series covering the short period, applying trend analysis is not the right choice. For data that are linear or parabolic in the long run, trend analysis gives more accurate results. Trend analysis is a special model of simple regression analysis in real terms (Makridakis, Wheelwright, & Hyndman, 1997; Palabıçak, 2019).

When the data obtained as a result of the running models are examined, it is concluded that the expected increases in production amount and efficiency are inversely proportional to the decrease in the production area and this situation is contrary to the production function. Therefore, in the calculation of the estimates made for the production area, the production function; production amount = yield * production area was constructed and production area = Production amount/yield equation was used.

3. FINDINGS AND DISCUSSION

3.1. ARIMA Modeling in Making Future Forecasts for Safflower Production Amount

In order for the ARIMA model to give a healthy result, firstly, Augmented Dickey-Fuller and Phillips-Pheron unit root tests were performed to test the stationarity of the dataset. According to the test results, it was determined that the dataset contains the unit root, so it is not stationary ($p > 0.05$). In order to make stationary the non-stationary dataset, the first difference was taken and the unit root tests were repeated. As a result of the stationarity tests, it was concluded that the data set did not contain unit root ($p < 0.05$) and is stationary (Table 1; Table 2).

Table 1. Safflower production (ton) Augmented Dickey-Fuller and Phillips-Pheron unit root test results

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-1.205117	0.6667
			Adj. t-Stat	Prob.*
Phillips-Perron test statistic			-1.205117	0.6667
* one-sided p-values (Mackinnon, 1996).				

Table 2. 1.differentiated Safflower production (ton) Augmented Dickey-Fuller and Phillips-Pheron unit root test results

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.150774	0.0001
			Adj. t-Stat	Prob.*
Phillips-Perron test statistic			-3.515876	0.0007
* one-sided p-values (Mackinnon, 1996).				

ARIMA (1.1.3) was found to be the most suitable model as a result of the automatic tests performed in determining the most suitable ARIMA model for the dataset made stationary. The model was accepted considering that the Likelihood value of the model is the highest compared to the other models, and the AIC, BIC, and HQ values are the lowest values compared to the values of the other models. ARIMA (1.1.3) model gave a statistically significant result at 1% significance level according to the f statistics ($p < 0.01$) (Table 3).

Table 3. ARIMA (1.1.3) test results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	569.3833	367.8553	1.547846	0.1276
AR(1)	0.742142	0.128702	5.766373	0.0000
MA(1)	-0.042450	136.8919	-0.000310	0.9998
MA(2)	-0.364289	113.6046	-0.003207	0.9975
MA(3)	-0.593254	36.57421	-0.016221	0.9871
SIGMASQ	16442812	2.27E+09	0.007249	0.9942
R-squared	0.488110	Mean dependent var		352.1186
Adjusted R-squared	0.439818	S.D. dependent var		5716.256
S.E. of regression	4278.348	Akaike info criterion		19.71034
Sum squared resid	9.70E+08	Schwarz criterion		19.92162
Log likelihood	-575.4551	Hannan-Quinn criter.		19.79281
F-statistic	10.10757	Durbin-Watson stat		1.904527
Prob(F-statistic)	0.000001			
Inverted AR Roots	.74			
Inverted MA Roots	1.00	-.48+.60i	-.48-.60i	

When the future projection is made according to the ARIMA (1.1.3) model, it is estimated that the safflower production to be realized in 2021 will be 26 794 tons, 31 690 tons in 2022, and 30 998 tons in 2023 (Figure 3).

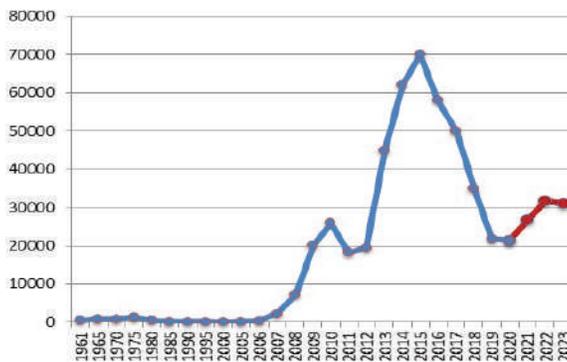


Figure 3. Change of Safflower Production (tons) Between 1961-2023 Years in Turkey

3.2 ARIMA Modeling in Making Safflower Yield Future Forecasts

In order for the ARIMA model to give a healthy result, firstly, Augmented Dickey-Fuller and Phillips-Pheron unit root tests were performed to test the stationarity of the dataset. According to the test results, it was determined that the dataset contains the unit root, so it is not stationary ($p > 0.05$). In order to make stationary the non-stationary dataset, the first difference was taken and the unit root tests were repeated. As a result of the stationarity tests, it was concluded that the data set did not contain unit root ($p < 0.05$) and is stationary (Table 4; Table 5).

Table 4. Safflower yield (kg/da) Augmented Dickey-Fuller and Phillips-Pheron unit root test results

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-0.466869	0.5090
			Adj. t-Stat	Prob.*
Phillips-Perron test statistic			0.158069	0.7284
* one-sided p-values (Mackinnon, 1996).				

Table 5. 1. Differentiated Safflower yield (kg/da) Augmented Dickey-Fuller and Phillips-Pheron unit root test results

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-13.03242	0.0000
			Adj. t-Stat	Prob.*
Phillips-Perron test statistic			-14.41073	0.0000
* one-sided p-values (Mackinnon, 1996).				

ARIMA (0.1.1) was found to be the most suitable model as a result of the automatic tests performed in determining the most suitable ARIMA model for the dataset made stationary. The model was accepted considering that the Likelihood value of the model is the highest compared to the other models, and the AIC, BIC, and HQ values are the lowest values compared to the values of the other models. ARIMA (0.1.1) model gave a statistically significant result at 1% significance level according to the f statistics ($p < 0.01$) (Table 6).

Table 6. ARIMA (0.1.1) Test results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.010941	0.012876	0.849715	0.3991
MA(1)	-0.492875	0.146018	-3.375449	0.0013
SIGMASQ	0.031821	0.004928	6.456687	0.0000
R-squared	0.211727	Mean dependent var		0.009911
Adjusted R-squared	0.183574	S.D. dependent var		0.202642
S.E. of regression	0.183099	Akaike info criterion		-0.503349
Sum squared resid	1.877422	Schwarz criterion		-0.397712
Log likelihood	17.84880	Hannan-Quinn criter.		-0.462113
F-statistic	7.520673	Durbin-Watson stat		2.035125
Prob(F-statistic)	0.001279			
Inverted MA Roots	.49			

When the future projection is made according to the ARIMA (0.1.1) model, it is estimated that the safflower yield to be realized in 2021 will be 146.19 kg/da, 147.80 kg/da in 2022, and 149.42 kg/da in 2023 (Figure 4). The fluctuating change in yield is explained by climatic conditions, the spatial distribution of precipitation, and inputs used in production. Climatic conditions, irrigation, soil structure and maintenance, oilseed variety are among the important factors affecting yield in safflower cultivation.

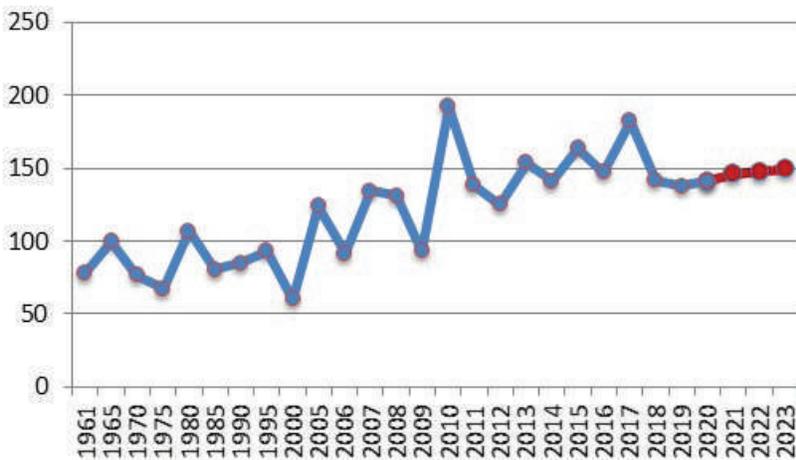


Figure 4. Change of the Safflower Yield (kg/da) Between 1961-2023 years in Turkey

3.3. Making Future Forecasts in Safflower Production Areas (Production Area = Production Amount / Yield)

According to the calculations made for safflower production areas, it is predicted that the safflower production areas will be 183 282 da in 2021, 214 411 da in 2022, and 207 455 da in 2023 (Figure 5).

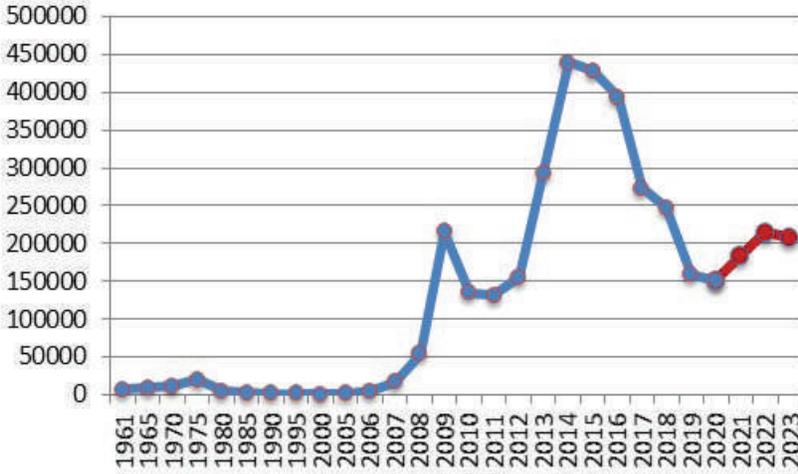


Figure 5. Change of the Safflower Production Area (da) Between 1961-2023 years in Turkey

It is not possible to speak of large-scale safflower production in the period of 1961-2006. “The Council of Ministers’ Decision Implementation Communiqué on the Payment of Subsidies to the Producers of the Year 2006 Cotton Unseed, Sunflower for Oil, Soybean, Canola, Corn, Safflower and Olive Oil” which was issued in 2006 provide a rapid increase in safflower production throughout the country. Safflower production increased to an unprecedented level in the history of the country in a short time and in 2015, 70 000 tons of safflower production was realized on 427 930 da land. Safflower production showed a decreasing trend after 2015, and in 2020 it was realized as 21 325 tons on a land of 151 150 da.

Although these values are much higher than before 2006, they cannot meet the current need. The clearest evidence of this is that there has been a noticeable increase in the import of safflower for inward processing in the international agricultural trade in recent years. Safflower imports between 1990-2013 years in Turkey realized at most 926 tons and there has been no import in some years.

The safflower import, which was almost non-existent between 2007 and 2013, was 12 781 tons in 2013 and its value was 4.2 billion dollars. 98% of these imports were made from Russia. Then, again, Turkey's partner in safflower imports was Russia. The main reason for this hot dynamism in foreign trade is that domestic production cannot reach the desired levels (United Nations, 2019).

3.4. Future Forecasts in Safflower Producer Prices Least Squares Method (Cubic)

Price estimates for the future have been made using safflower producer prices between the years 2001 - 2020. The least-squares method was used to make future predictions and it was determined that the most suitable model was Cubic. The model statistically significant ($p < 0.05$) and explains time-dependent change at a rate of 94.3% (R^2).

Table 7. Coefficients of Parameters and t Test Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Case Sequence	.188	.059	2.070	3.165	.006
Case Sequence ** 2	-.020	.006	-4.985	-3.224	.005
Case Sequence ** 3	.001	.000	3.962	4.169	.001
(Constant)	-.197	.154		-1.278	.219
R ² .943 F 93.083 Sig. .000					

The time parameters of the model were also found to be statistically significant ($p < 0.05$). Model equation;

$$P = -0,197 + 0,188t - 0,020t^2 + 0,001t^3$$

In the equation, the price is symbolized as "P" and the time variable as "t". In the light of these results, safflower producer prices; It is predicted to be 2.50 TL / kg in 2021, 2.96 TL / kg in 2022, and 3.49 TL / kg in 2023 (Figure 6).

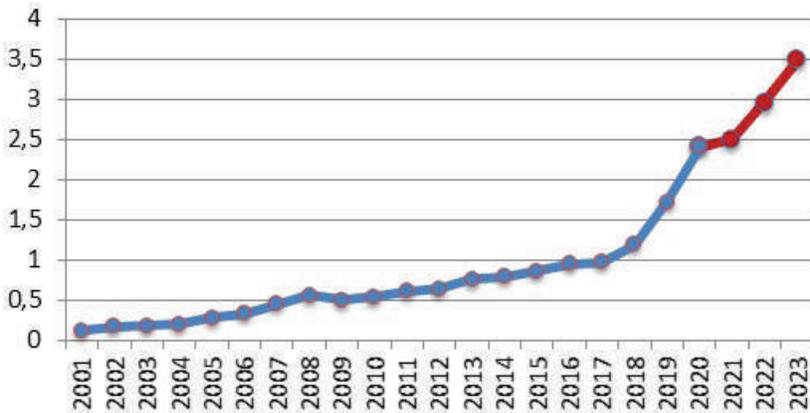


Figure 6. Safflower Producer Prices Change (TL / kg)
Between 2001-2023 Years in Turkey

4. CONCLUSION AND SUGGESTIONS

It is a fact that climate changes and droughts will be experienced more frequently both globally and in our country. One of the factors in climate change and drought struggle action plans is the creation of a drought-tolerant crop pattern. On the other hand, sloping and arid lands where competitive crops economically cannot be grown are quite high in our country. Safflower is an important alternative product to be used in this sense, both because of its drought tolerance and the suitability of the soil demand for its cultivation. The production amount of oils obtained from oil plants grown in our country is around 0.7 million tons, and the consumption of edible oil is more than one million tons. So, vegetable oil supply cannot meet the demand. In other words, our country is an importer in oil and oilseeds. In this sense, safflower is a product that can be used to close the supply gap in oil consumption.

Globally, oilseed plants are recognized as strategic products. On the other hand, in oil processing facilities, it is possible to produce oil by processing safflower seeds, such as sunflower oil, without any additional process changes. In such a case, the economic efficiency of many enterprises working with insufficient capacity due to lack of raw materials may increase. This situation, on the other hand, will contribute positively to employment.

Synthetic aniline dyes used in industry may have some side effects on human health. Increasing the use of dyes that are completely naturally obtained

from safflower flowers and do not pose a risk to human health in food production and the textile industry will encourage farmers to cultivate safflower. This situation will give positive results in terms of both health and production economy.

Seed cossette obtained from oilseeds is an important source of protein that can be used in animal breeding. The feed comes at the top of the problems experienced in livestock in our country. In this sense, spreading safflower cultivation will make a positive contribution to the livestock sector.

Safflower is an environmentally friendly product that can also be used in biodiesel production. It has the potential to be used in reducing foreign dependency on petroleum and its derivatives in our country. The use of safflower plants as human food, industrial uses, and as feed-in animal breeding reveals its value and importance for agriculture. In recent years, positive arrangements have been made in public supports for safflower cultivation areas to become widespread. These supports should increasingly continue. In addition to these, farmers should be informed about production and yield through agricultural extension activities and they should be supported technically. On the other hand, it is necessary to support safflower oil and other related products with promotional activities to take part in marketing channels and to be competitive products.

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