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**ECONOMICS OF INNOVATION IN E-COMMERCE WITH PANDEMIC EFFECT
THROUGH ANALYSES OF TURKISH FIRMS**

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ECONOMICS OF INNOVATION IN E-COMMERCE WITH PANDEMIC EFFECT THROUGH ANALYSES OF TURKISH FIRMS

ABSTRACT

The use of the internet has gained great speed in recent years and caused huge changes in the sectors. The e-commerce sector, which has more accelerated its growth with the pandemic, has started to establish new large companies in this field and to affect traditional trade channels. The main purpose of this paper is to reveal how e-commerce and online shopping will affect traditional trade channels. A comprehensive e-commerce literature review was conducted for the e-commerce volume in the world, online shopping in Turkey, the effects of COVID-19 on e-commerce and consumers have been scanned and interpreted in related articles. In addition, the research has been made quantitative with data from reports, interviews, and reputable articles in these fields. Many different sales figures, sector growth, data of leading companies in Turkey such as Trendyol and Hepsiburada were analyzed, graphics were prepared and interpreted. This research has proven to us that the e-commerce sector has grown significantly in recent years. In addition, traditional trade channels that can adapt to the e-commerce sector have had the opportunity to increase their sales volumes and growth in an unprecedented way. Based on these results, it has been revealed that very successful and contemporary results can be achieved when both e-commerce sector-leading companies and traditional channels work together. However, those who continue their way only through traditional trade channels will give up their shares in this sector.

INTRODUCTION

The increase in internet use has led to many differences in traditional trade channels through commercial marketing, sales, and consumer behavior. Some small businesses

cooperated with online firms. Others continued their own traditional trade. Therefore, the impact of this rise of e-commerce on traditional trade channels has been the subject of discussion.

The main question of this research is whether e-commerce sector will end the traditional trade channels as a creative destruction with the effect of pandemic or not. The growing rate of internet usage and the changes in shopping behavior have created many new fields and economic opportunities. With the creation of these new fields people got the chance to start their businesses without the need of an actual store on the street. While trade channels and shopping behaviors are going through these alterations, small businesses are encountered with a change process. In this research, it is assumed that companies that cannot adapt to the e-commerce sector will miss current and future opportunities and even face the danger of extinction. Conversely, there will be a growth chance for SMEs and small traders who assimilate and use e-commerce. However, this adaptation is not an easy one for such small-scale firms, it covers new marketing, sales, advertising, and cost strategies and innovations. In support of this, the capacity of the e-commerce sector has increased tremendously in recent years. There has been a huge volume exchange between traditional and electronic trade. With the development of e-commerce, the traditional way of shopping has been evolving from face-to-face transactions to online trading.

The main aim of this research is to analyze and interpret the e-commerce path, domestic and foreign e-commerce companies' growth levels, structures, and externalities which create different effects on traditional trade channels. In this way, it is desired to make recommendations about the future and evolution of traditional trade channels. While examining the internal relationship between increasing e-commerce and decreasing traditional

channel trade volumes in recent years, the pandemic effect has been included in the research and interpreted in detail.

LITERATURE REVIEW

The size of e-commerce in the world, its commercial effects, and its effects on traditional trade channels have been examined above. Also, beyond that, this topic has taken a different dimension with the outbreak of the Covid-19 Pandemic into our lives in 2019. It has caused many different changes on people, therefore on consumers. Thus, it would be an incorrect or incomplete approach not to include the pandemic in the e-commerce analysis carried out in 2021. The coronavirus changed people's lifestyles, jobs, behaviors, and commerce because people had to stay away from each other. During this period, consumers were afraid to go to traditional channels to shop such as shopping malls, bazaars, restaurants, etc. Bhatti mentions that approximately 52% of consumers try to refrain from traditional shopping and 36% do not want to do physical shopping without vaccinations (Bhatti, 2020). In a period when e-commerce is already on the rise, the fact that consumers are moving away from traditional commerce at this size explains the positive relationship between Covid-19 and e-commerce. This situation has caused different effects in areas such as retailing, grocery, clothing, food, etc. For example in grocery areas, in Turkey, Getir, Trendyol Hizli Market, and Yemeksepeti Banabi platforms quickly gained a large market share and consumer. According to Bhatti, in this period, worldwide American retail store chain Walmart grocery e-commerce channel sales increased by 74% (Bhatti, 2020). This shows that consumers are making similar behavioral changes around the world. As mentioned above, people have also changed the way they do business. Most companies switched to remote working and shifted their meetings to platforms such as Zoom, GoogleMeetings, Skype. Hence, consumers have started to stay at home and use more

online platforms. Below, it can be seen the e-commerce volumes of the largest retailers during the pandemic period.

Figure 1. The largest retailers e-commerce volume during Covid-19

Rank	Retail Website	Millions	Country
1	Amazon.com	4095M	USA
2	Ebay.com	1227M	USA
3	Rakuten.co.jp	804M	Japan
4	Samsung.com	648M	South Korea
5	Walmart.com	614M	USA
6	Apple.com	562M	USA
7	Aliexpress.com	532M	China
8	Etsy.com	395M	USA
9	Homedepot.com	292M	USA
10	Allegro.pl	272M	Poland

(Andrienko, 2020)

In the figure above, it is noteworthy that 6 of the 10 largest e-commerce sites are based in the USA. However, the article supposed that E-commerce has also grown in developing countries such as Pakistan, Malaysia, and Singapore (Bhatti, 2020). The Covid-19, which accelerated e-commerce, brought some difficulties with increasing sales rates. These are generally related to product & goods delivery, and new marketing and sales strategies.

In the conclusion, the volume of e-commerce has increased with the new consumer behaviors brought by the pandemic. Hence, in an era where consumers are so close to technology, sellers should understand the new customer behaviour trends.

Through all these reasons, innovations and digital marketing become a necessity for firms. In Pollák's research, researchers examined the European's e-commerce behaviors with a sample of 14,000 Facebook users and 10 chosen e-commerce sectors. These markets were followed by researchers for the specific period in Covid-19. In the article, the authors focus on especially innovation and continuous changes in the market (Pollák, 2020). Today, the right product, the right price, or even the right technology may not be enough for a successful enterprise or business. Now, it is more important to use technology with customer-oriented, problem-solving software that offers the right option to the right target. Moreover, unlike traditional trade channels, the marketing communication of technology should be done through the right channels, and the commercial marketing budget should mainly focus on technology channels. Since the analysis is divided into two regions, specific cultural differences such as consumers' trust in digital platforms and their ability to use these platforms are also important. E-commerce offers consumers many options, quality, and price choice. Hence, firms have to determine both new and correct marketing strategies to reach consumers. These are the use of efficient information technologies, better CRM software, huge data analyses, and accurate use of marketing tools, etc. One of the biggest differences between online and offline commerce is the moment the purchase decision is made. External factors influencing this decision completely differ between e-commerce and the traditional channel. The competencies of the businesses that switch to e-commerce may not be enough, so they need to innovate and change. According to Pollák, accurate digital marketing and social media tools that take into account cultural, social, individual, and psychological factors are effective in growing the business

(Pollák, 2020). Also, it is thought that the closure of many places during the pandemic may cause permanent behavioral changes in consumers. In the comprehensive study, researchers selected 5 major e-commerce sites in the Czech and Latvian markets.

They also divided the seasons as a first and second lockdown, this is seen in figure 2. According to the analysis, the study showed that in the second lockdown for Czech markets, the average interaction during the working days diminished, Sunday was the second most interacted day, and there was a decrease in general activities. Activities generally shifted to working hours rather than nights. This may be due to the fact that remote work has come to life. These all differences can indicate that companies and people are getting used to the pandemic and adapting.

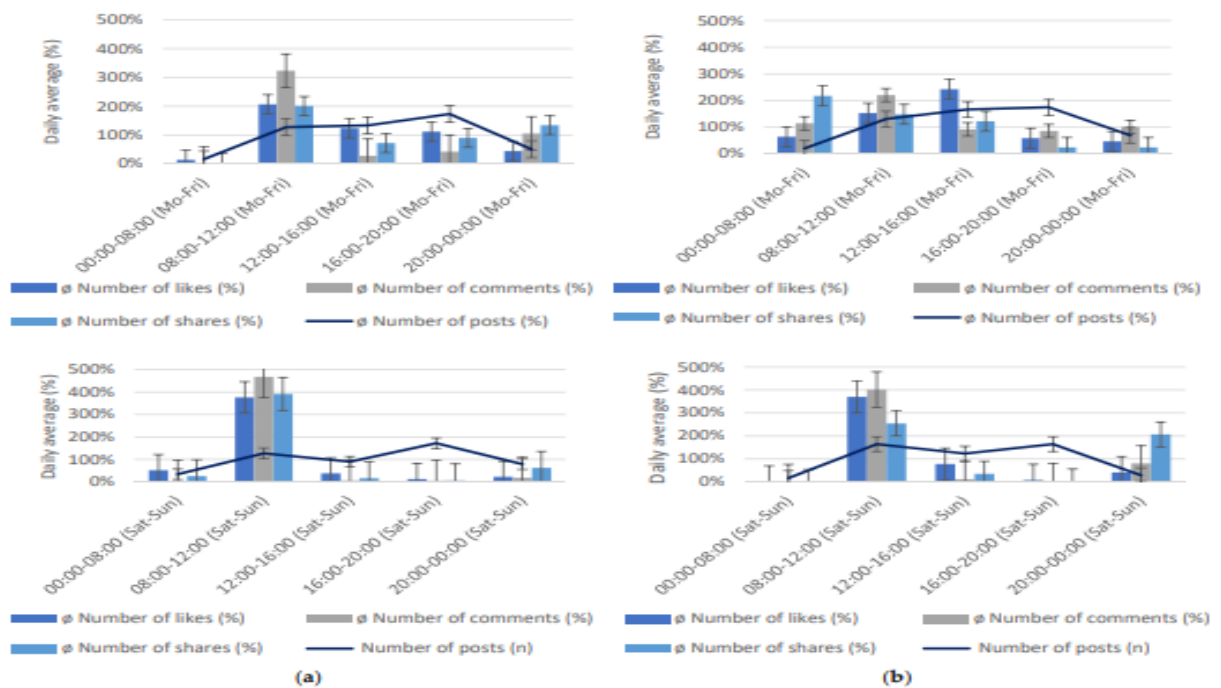


Figure 2: Histogram of interactions-model day in Czech Republic. (Pollák, 2020)

When researchers compared the e-marketing activities of Czech and Latvia in figure 3, they also found some differences there. It can be seen that in the working days, Czech markets were generally more active until 16:00, and Latvian markets had more interaction from 12:00 to 20:00. On the weekend, although they both have the same model, Latvian markets, or Amazon and eBay had almost no e-marketing interaction after 20:00. This study shows that firms must analyze their target audience customers very well and plan their marketing activities and advertisements accordingly to this. Since geographical and seasonal differences create several consumer behavior scenarios.

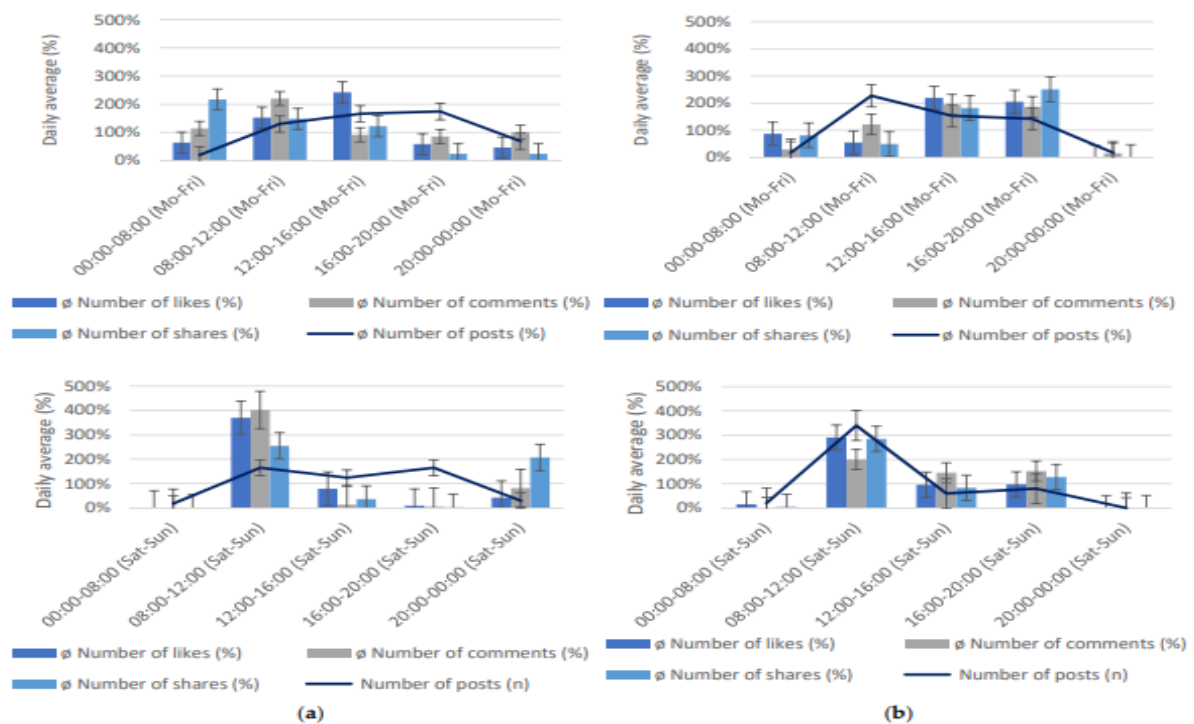


Figure 3: Histogram of interactions-model day in Czech Republic vs model day in Latvia.

(Pollák, 2020)

In the conclusion, remote working and shutdowns along with the pandemic have increased the time consumers spend on online platforms. This has revealed the increase in e-commerce activities and the necessity of innovation management for companies. Pollák mentioned that the geographical differences and top firms' characteristics also cause some behavioral differences in e-commerce consumers. Hence, national factors and major players should be taken into account in all innovation, technology, and marketing efforts (Pollák, 2020). Firms must analyze their customers very well, innovate their technology, and use IT, CRM, digital marketing tools, and social media according to it if they want to survive.

Goldman and Herk examine the effect of strategic orientations on the usage of digital marketing strategies and, consequently, the international enterprise performance of small electronic retailers (e-retailers) on cross-border electronic trade. The study uses a sample of 446 small e-retailers obtained from 20 European nations to represent the larger population. The authors found that the deployment of tactics of digital marketing positively impacts the performance of international business for both emerging and developed e-commerce markets.

According to research done by *Forrester Research* (2019), as cited in (SP G. , Herk H, T, & JW, 2021), business-to-consumer (B2B) cross-border online sales are expected to form about 22% of e-commerce sales by 2022. Authors conducted a three-way approach to assess the impact of various digital marketing strategies on the financial performance of e-retailers on cross-border trade. Firstly, they evaluated the relationship between small firms' orientation strategies and digital marketing strategies. Secondly, they examined how digital marketing strategies improve small retailers' global digital business performance. Finally, they assessed the impact of strategic orientation to assess how digital marketing tactics vary across developed and emerging markets.

Authors use strategic marketing orientations to understand how small retailers' orientations impact digital marketing tactics in cross-border trade (SP G. , Herk H, T, & JW, 2021). They have studied the correlation of tactics of digital marketing and growth in orientation, whereby they hypothesized that a higher level of growth orientation led to e-retailers adopting the use of digital marketing strategies in cross-border e-commerce. They also hypothesized the connection customer orientation and tactics of digital marketing have. They determined that as customer orientation increased, many small e-retailers utilized tactics of digital marketing in cross-border e-commerce—the correlation of tactics of digital marketing and foreign market orientation. Foreign market orientations entail the processes required to learn about and effectively serve foreign markets. They concluded that a high level of foreign market orientation leads to e-retailers profit by using tactics of digital marketing in cross-border trade.

Additionally, according to previous research, the article hypothesizes the relationship of e-commerce markets those that are emerging and those that are developed, whereby markets those that developed appear to be more competitive than emerging markets. The authors use a two-step process to classify countries analyzed in their research as either a developing or an already developed e-commerce market. They classify countries as possessing a developed e-commerce market, when e-commerce revenues were above \$250 per capita, and as having an emerging e-commerce market when e-commerce revenues were lower than \$250 (SP G. , Herk H, T, & JW, 2021).

The researchers conducted a quantitative, questionnaire-based study to test their hypotheses. The sample size comprised 20 retail firms across 20 European nations. They then assembled a list of numerous uniform resource locators (URLs). The data was analyzed using *lavaan* (version 0.5-23.1097) in R. The analysis consists of five sections. First, the Convergent

and discriminant validity was tested by using Cronbach's alpha, and the assessment of the heterotrait-monotrait (HTMT) ratio of correlations. Cronbach's alpha for growth orientation, customer orientation, and international business performance exceeded Nunnally and Bernstein's (1994) recommendation of 0.70 (SP G. , Herk H, T, & JW, 2021). The invariance showed that the model was a good fit ($\chi^2/df=1.26$, $p=0.26$).

The research has conducted a multi-group analysis to compare the model for e-retailers from developed e-commerce markets ($n=256$) against e-retailers from emerging e-commerce markets ($n=190$) (SP G. , Herk H, T, & JW, 2021). It is found that growth orientation has a significant positive effect on tactics of digital marketing in developed e-commerce markets, while it does not have a significant effect on emerging markets. Unexpectedly, research shows that customer orientation has a negative and significant effect on tactics of digital marketing in emerging markets. Furthermore, the research indicates that there is a significant positive effect of foreign market orientation on tactics of digital marketing for both emerging and developed markets. As the foreign market orientation levels increase, small e-retailers make more use of tactics of digital marketing in cross-border e-commerce. Small e-retailers' business performance grows with the increase of tactics of digital marketing in international markets. The results acquired from the multi-group analysis shows that the structural equation model is a good fit for both emerging and developing e-commerce markets.

This study established that orientation of foreign market had the biggest impact on using tactics of digital marketing in foreign markets of the three strategic marketing orientations investigated. Finally, the authors used an alternative model to compare their existing model to determine its accuracy. The structure of the alternative model showed that the model used remained largely unchanged.

The test, therefore, gave confidence in their chosen model because the structure remained constant. They established that using tactics of digital marketing in foreign markets improves small-scale e-retailers' business performance. The results suggested that small e-retailers from both developed e-commerce markets and emerging markets should invest more in their foreign market orientation within their firm's strategy (SP G. , Herk H, T, & JW, 2021).

Covid-19 has been significantly influential on consumption choices, especially with regard to online purchasing. The increase in the demand for e-commerce opened a new field for business owners as well as researchers. The need for new business development strategies and tools came to the foreground. To answer these needs, Kayakuş and Çevik(2020) conducted research on estimating how many visitors online shopping websites had during Covid-19 in Turkey by using ANN(artificial neural networks). They analyzed the monthly number of visitors to 4 of the most popular e-commerce websites in Turkey like Hepsiburada, N11, Sahibinden, and Gittigidiyor as well as the data of total and new Covid cases, loss of life due the Covid-19, recovery rates, the number of intubated people and Covid tests. Once again, it has been observed that issues regarding public health, isolation processes, and such alarming environments are very impactful on consumption choices.

This study provided the following explanation for the change in the usage of online shopping platforms in the Covid-19 period: After the global outbreak occurred, there was less demand for such platforms because of the risk of cargo services becoming infected with the virus and parcels being delivered in a timely manner. Then, people went into the compulsory quarantine period, that was when they exhibited preferences for online shopping for their daily necessities. Additionally, the demand for online shopping rose even further when

shopping malls and trade centers were closed for a while due to the pandemic rules and regulations.

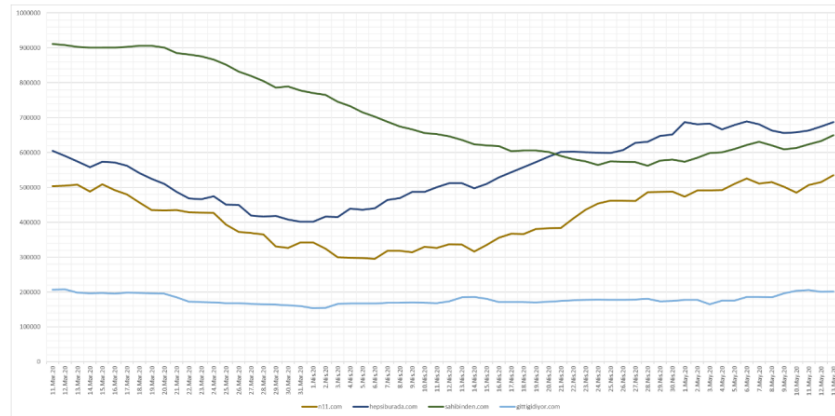


Figure 4: Change in the number of visitors of e-commerce sites during the COVID-19 process (Kayakuş & Çevik, 2020)

Analyzing the shift in the quantity of visits to online shopping platforms is crucial since that change impacts their total sales volume and revenue. This model in the research provides online shopping websites with information about their quantity of visitors as it analyzes the data change during the pandemic. Since such platforms can get an idea of the change in their number of visitors, they can generate new plans and strategies in terms of future investments, expenses and number of workers they need to employ (Kayakuş & Çevik, 2020).

The shifts in consumer behavior caused by the pandemic might have long-term implications. The research conducted by UNCTAD and Netcomm Suisse eCommerce Association, in collaboration with the Brazilian Network Information Center (NIC.br) and Inveon(2020), portrays that changes in online activities are likely to outlive the global outbreak as most of the participants, especially those from Turkey and China, expressed that

they plan to carry on with shopping online and concentrate on essential goods in the foreseeable future.

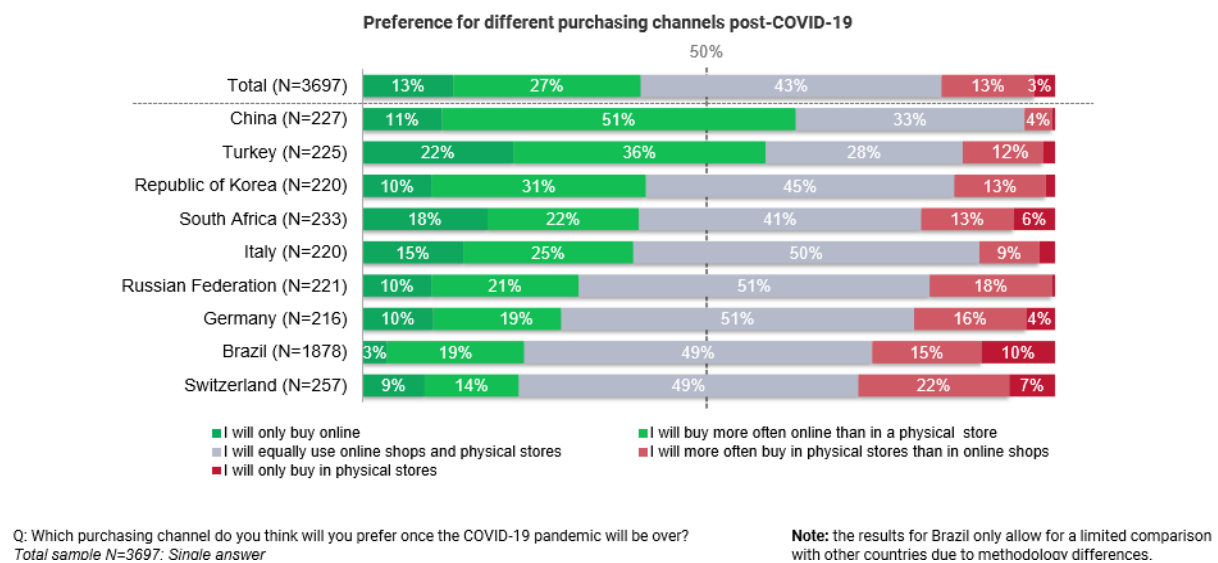


Figure 5: Preference for different purchasing channels post COVID-19 (UNCTAD & Netcomm Suisse eCommerce Association, 2020)

While technology is growing and people are moving towards online platforms more and more, digital marketing plays an important part for small size enterprises by paving the way for them to enter the larger sectors and markets. It is crucial because traditional commerce methods would not be able to provide the same opportunity for such businesses. Hence, in this time of Covid-19 outbreak, keeping up with the change in the market environment and being able generate new business plans and strategies to promote themselves and get in touch with a wider consumer base are must-have qualities for the businesses. The ones that use online websites and platforms have exhibited huge growth rapidly, obtaining new sets of business advantages even during the pandemic (Vapiwala, 2020)

Hence, it is crucial for e-commerce marketplace platforms and online sellers to modify their business plans to the shifts that seem to have quite a long-term impact on the economy in

this ever-changing market environment. Vapiwala(2020) suggests that adopting new e-marketing strategies like embracing authentic and empathetic approaches, tracking trends, leveraging time for local SEO, and enhancing social media exposure can benefit online businesses even after the pandemic comes to an end.

All things considered, it's safe to say that consumer behavior has been reshaped by Covid-19, and its impact is most likely to be long-lasting, especially in the area of e-commerce. It is pivotal for online businesses to use analytical models and tools to develop their business further and adapt to the new digital marketing strategies if they want to survive and prosper in the new market environment even after the pandemic.

Technological innovations are interrelated with the internet and, as a result, the development of both concepts evolved together. Internet has turned into such a widespread theme that it created new job fields and the term “e-commerce” came to life. E-commerce’s fundamental idea is direct online business transactions between the buyer and the seller (Özdemir & Çam, 2016). There were transactions without middlemen before, but by using e-commerce, the rules of trading are facing a new perspective and the firms are facing new challenges such as large numbers of competitors and conscious buyers (Botha, 2004:113). In Turkey, the first steps to e-commerce began with the establishment of gittigidiyor in 2001. However, during those years the costs of such a company was high as it was ran in foreign languages, the shipment industry was not as advanced as it is now and most importantly there was not a large demand towards e-commerce. In time, with the growth of e-commerce industry, Turkey and the rest of the world began to keep up with the new developments and online marketing reached an all time high (Özdemir & Çam, 2016).

In order to evaluate the online shopping habits of nonmetropolitan cities in Turkey, it is convenient to look at the demographic structure of the city of Gümüşhane, which is a developing city where a major part of its population is made up of government officials and employees from other cities. It has been observed that people who reside in cities like Gümüşhane have difficulty in shopping and must rely on the Internet to do it (Özdemir & Çam,2016). As a result, the researchers picked the city of Gümüşhane to conduct their research on the importance of e-commerce in terms of local development, and the city's e-commerce potential was observed. The participants in the study are young and middle-aged people from Gümüşhane. The research group has been asked to respond to the questions in order to identify purchasing preferences and online shopping potentials.

The data for the study was gathered through a survey method. The survey form had three sets of questions: the first group was used to assess demographical characteristics, the second group was used to determine shopping preferences, and the third group was used to determine the participants' purchasing potential. After the false surveys were eliminated, the The margin of error was set to $e=5\%$, and the sampling size was set to $n=383$ with a 95 percent confidence interval, using the survey method. (Kurtuluş, 1998: 235). They were testing five different hypotheses. They evaluated the education and income levels, then began to survey about the preferences and reasons behind the usage of e-commerce in Gümüşhane.

Variables	Factor Loads	Variance Percentage	Eigenvalue	Cronbach Alpha
F1- The Reasons for E-Commerce Usage		18,841	4,145	0,889
I shop online because I cannot find well-known brands in the city I live in.	0,709			
I have bought many products online up to now.	0,700			
I shop online because the city I live in is a small city.	0,697			
I shop online because I do not have many choices in the city I live in.	0,696			
I like online shopping more than actual shopping.	0,692			
F2- E-Commerce Shopping Choices		18,232	4,011	0,878
I buy the product I like online	0,813			
I get to know e-commerce through my friends.	0,796			
I usually buy cosmetic products online.	0,768			
I usually buy textile products online.	0,661			
F3- Structure of Online Companies with E-Commerce		16,188	3,561	0,854
Product range of the stores that I do online shopping is important for me.	0,865			
Payment type while I do online shopping is important for me.	0,856			
The design of the stores while I do online shopping is important for me.	0,784			
I like online shopping.	0,503			
F4- The Reasons Why E-Commerce is not Being Used		12,639	2,781	0,751
I usually experience problems while I do online shopping.	0,824			
I found online shopping nonsensical.	0,782			
I have difficulty in online shopping.	0,713			
I don't find giving my credit card information to web site secure.	0,625			
F5- The Relationship Between E-Commerce and Internet		11,408	2,510	0,804
I usually buy electronic products online.	0,842			
I usually buy textile products online.	0,781			
I continually use internet.	0,544			
I use web e-mail services.	0,524			

Figure 6: Results of Factor Analysis (Özdemir & Çam,2016)

Figure 6 shows the variance, eigenvalue and cronbach alpha of the questions. As a result, the researchers found that Gümüşhane citizens are not afraid to share their personal information online, and that they were not able to find a large variety of their needs (clothing, electronics etc.) in their town's shops. Therefore, it can be deducted that the people in developing cities use e-commerce both because they have limited access to their desired product and cannot find what they are looking for. People of Gümüşhane can be generally considered as open-minded towards e-commerce. Also, the relationship between the education level and the size of online shopping are directly related. So, as the education level increases, the volume of shopping increases too.

Another research on the online shopping behavior of Turkey, which sampled from participants (234 people) who are potential online shoppers who use at least one electronic

device with the age range 22-41 and most of the participants have graduated from a university by 65.4 percent, shows that people spend an average amount of 7.2 hours on a computer and 5.8 hours on mobile phones. Only 2.6% of the participants stated that they have never used online shopping before. The minority that have never shopped before gave the reasons below (Figure 7) ;

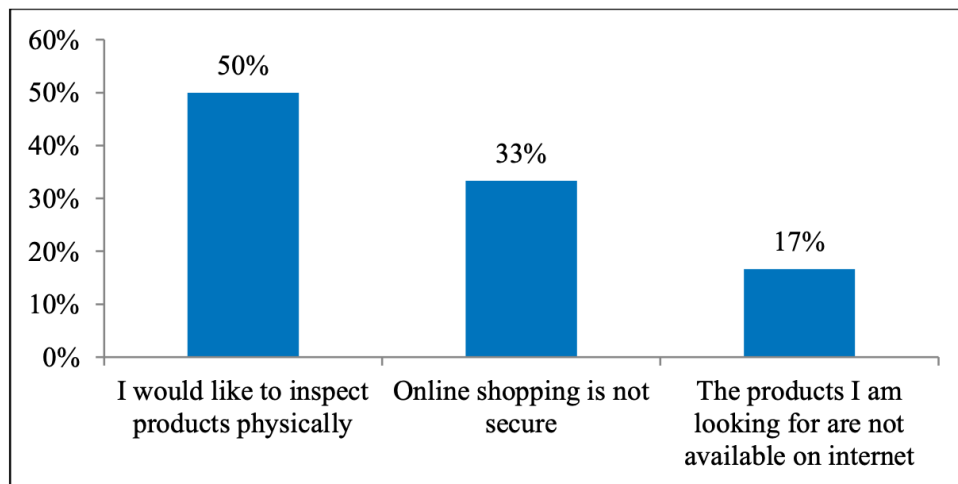


Figure 7: The Reasons Not To Shop Online (Ertemel & Çelik, 2016)

It can be seen that the need to physically contact with the product carries a large amount of significance (Multiple selection was offered for this question). Next, the reasons to shop online were asked and by far “Saving Time” is the most relevant answer with 72%. Other answers given are shown in Figure 7 (Multiple selection was offered for this question).

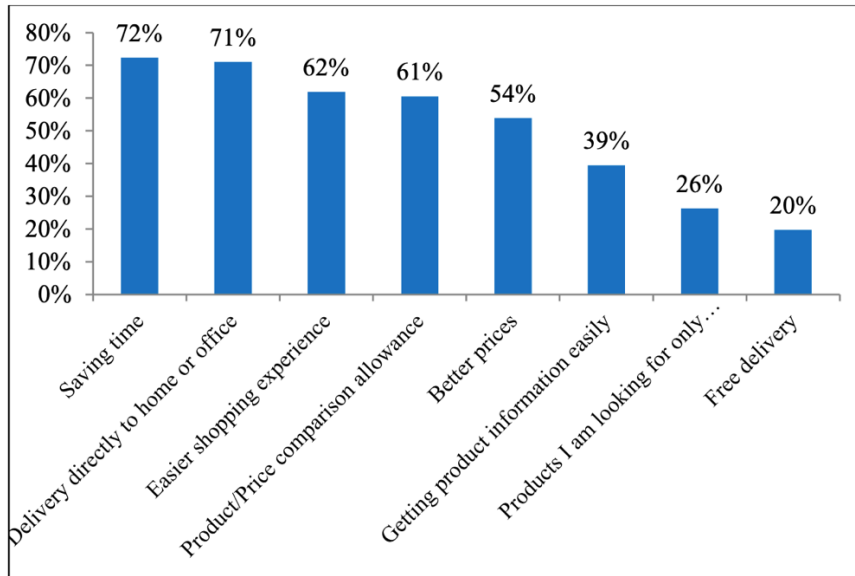


Figure 8: The Reasons To Shop Online (Ertemel & Çelik, 2016)

Interestingly, even though fashion websites are on the rise, when the participants were asked about what they were using the online shopping platforms for, they gave the answer “Travel & Bookings) with a 100% rate (Multiple selection was offered for this question). The answers were followed by “Fashion” with a 79% rate, then came “Financial Services & Banking” with a 70% and continued as below;

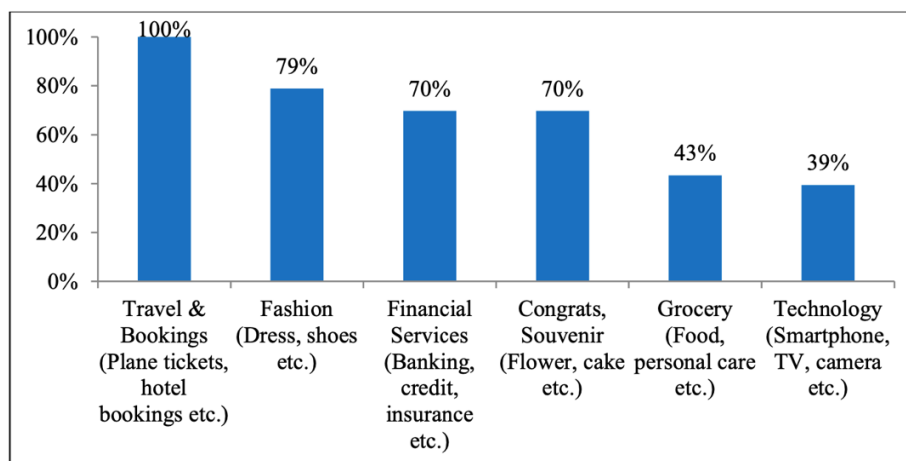


Figure 9: The Most Preferred Online Shopping Categories (Ertemel & Çelik, 2016)

Therefore, with the combination of these two researches, education plays a great role in online shopping behaviour due to the fact that it creates a more conscious buyer portfolio. A large amount of bias against online shopping comes from security concerns and the need to actually see the product. On the other hand, shopping online allows people to save time and find the lowest price possible. As a result, 62% of the participants believe that e-commerce serve as an easier shopping experience. Also, tourism and fashion industries are the ones that enjoy the conveniences brought by e-commerce. Overall, Turkish consumers are interested in saving time, they pay attention to price levels and are willing to use e-commerce for their daily needs (Ertemel & Çelik, 2016).

METHODOLOGY

The main purpose of this research is to investigate the rise of e-commerce, the extent it has reached with the pandemic, and whether it will destroy traditional trade channels or not. In this regard, the growth of the e-commerce sector, usage channels, new sales and marketing strategies, and the effects of the pandemic on consumer behavior were investigated in detail. This research includes both quantitative and qualitative data. As quantitative data, world e-commerce sector growth, Turkey e-commerce 2020 and 2021 data, reports of biggest domestic e-commerce platforms which consist of the number of order, sales, and sector distribution data were used as secondary data. It is more appropriate for this study to analyze the trend of the traditional trade channel by taking the growth in the e-commerce sectors as a reference. In addition, forecasts and analysis of social media and new marketing and sales strategies in the future are included.

The numerical data and trends obtained were interpreted in detail and aimed to put the study on objective foundations. Qualitative data were collected from and analyzed for the reasons for quantitative data results, with a comprehensive literature review. The selected articles have been chosen as e-commerce in the world, e-commerce in Turkey, the effect of the pandemic on e-commerce and consumer behavior, and the research have gained a multidimensional status. The validity of the study was increased by selecting the articles from reputable finance, trade, communication, and business management journals that are valid in the international arena.

E-commerce, consumer behavior and shopping hours, world online shopping volume, Turkey online shopping volume, data of biggest domestic e-commerce companies were collected and some graphs formed in Microsoft Office Excel. Finally, suggestions and forecasting were made according to the reports of the biggest domestic e-commerce platforms such as Trendyol, Hepsiburada, Yemeksepeti, etc.

DATA ANALYSES

1. Worldwide Data Analysis

E-commerce has become an irreplaceable part of the global trade in recent years. With companies, small businesses and consumers adapting to the modern and digital world, growth in e-commerce numbers is increasing. In the beginning of 2020, with the start of the Covid-19 pandemic the increase in these numbers have peaked. According to Statista's report on global e-commerce, in the year 2020 more than two billion consumers bought goods or services through online shopping sites, e-retail number of sales passed 4.2 trillion dollars globally. Retail e-commerce sales were around 3.34 trillion dollars in 2019. In 2020 this number increased to

4.28 trillion dollars, a %27.6 increase occurred with the effect of the pandemic. E-commerce retail sales was %18 of total retail sales around the globe in 2020.

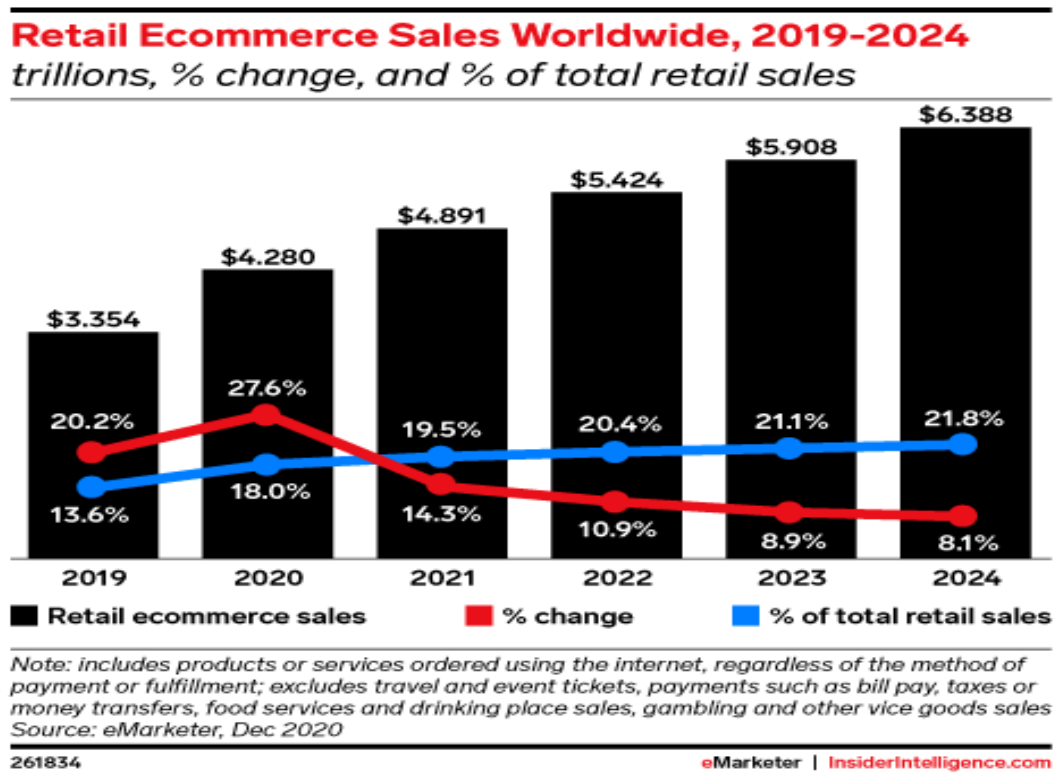
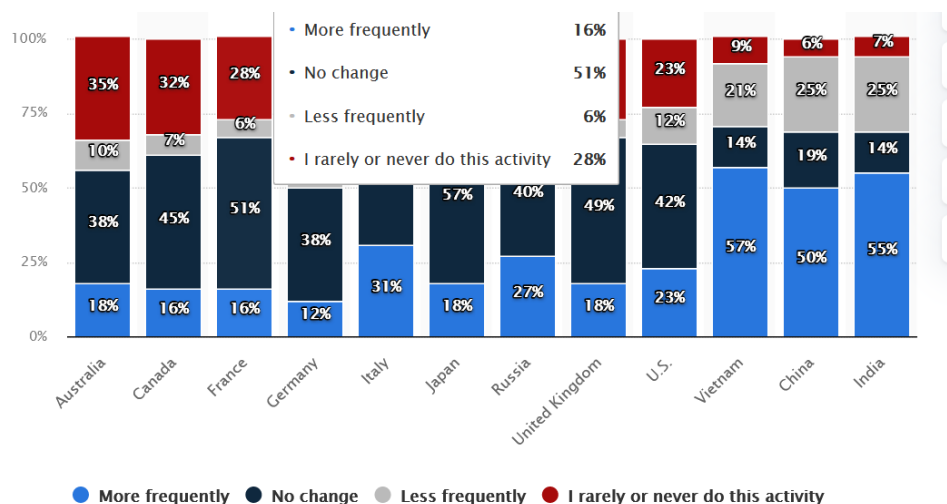


Figure 10: Retail e-commerce sales worldwide 2019-2024 (eMarketer, 2020)

As seen from the graph above eMarketer predicts that this growth will continue till 2024 by reaching %21.8 of total retail sales.

Covid-19 pandemic has also changed consumer behavior in very observable ways. China has the biggest volume of e-commerce sales in the world. According to surveys done by Statista in China, after March 2020 consumers started to purchase the products online, which they usually purchased from the local stores.



© Statista 2021

Figure 11: Change in e-commerce usage to purchase product normally bought in store
(Statista 2020)

As seen in the figure above Germany has the least percentage of change in consumer behavior with %12. Even that number is a big change in just one month.

According to Global-e, from January 1 to June 14 in 2020 cross-border online sales have increased by %21 worldwide.

In May of 2020 global cross-border sales grew over %40. United States has the 2nd largest volume in e-commerce sales after China. With the spread of Covid-19 virus in the United States consumers purchased more from e-retailers who are outside of US. The figure below shows the growth of cross-border sales in US.

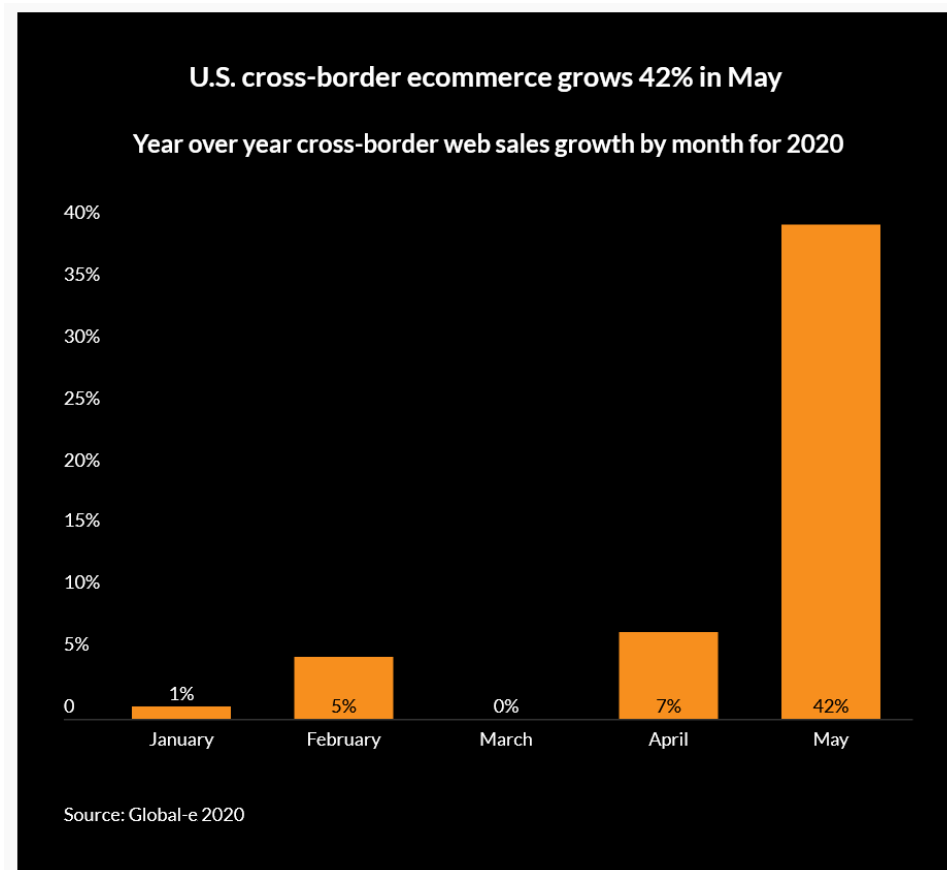


Figure 12 : Monthly growth of cross-border sales in US (Global-e 2020)

The Covid-19 pandemic still have a significant effect on e-commerce and consumer behaviour. As millions of people staying indoors e-commerce sales will continue to grow everyday.

2.Turkey's Data Analysis

According to the Turkish Ministry of Commerce, the ratio of the e-commerce to general commerce is at an average of 9.8% in 2019, and around 15.7% in 2020. An increase in the average of the ratio of the e-commerce to general commerce from 2019 to 2020 is equal to 5.9% and this rate can be explained with the pandemic factor. The first quarter of 2020 has the same rate (12%). However, Covid-19 began to affect the daily life of Turkish consumers

around March 2020, so as it can be seen from the graph below, after March 2020, the ratio was never lower than 15%.

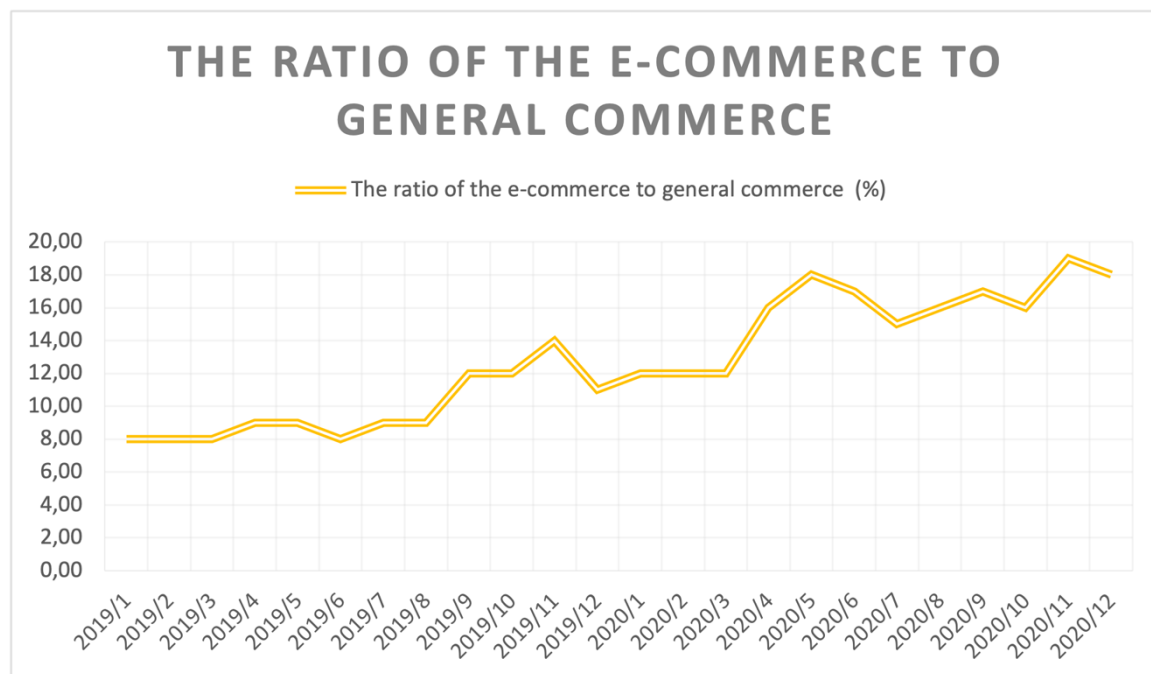


Figure 13 : The ratio of the e-commerce to general commerce (Turkish Ministry of Commerce, 2020)

In the first six months of 2021, the ratio of the e-commerce to general commerce is 17.6%. This ratio was at its highest in May 2021 with 20.2%. Due to the pandemic (Covid-19), a global normalization process began, thus the ratio was around 15.2% in June. From the table above, April 2020 and May 2021 can be compared, one of them represents the beginning of the pandemic and one of them represents the decline in Covid-19. In April 2020, the rate was 16% and in May 2021 it is around 15.2%, so the beginning and the after-normalization e-commerce to general commerce ratio of the pandemic has similar rates. It can be concluded that the shopping habits of Turkish consumers are going back to what they were before the pandemic.

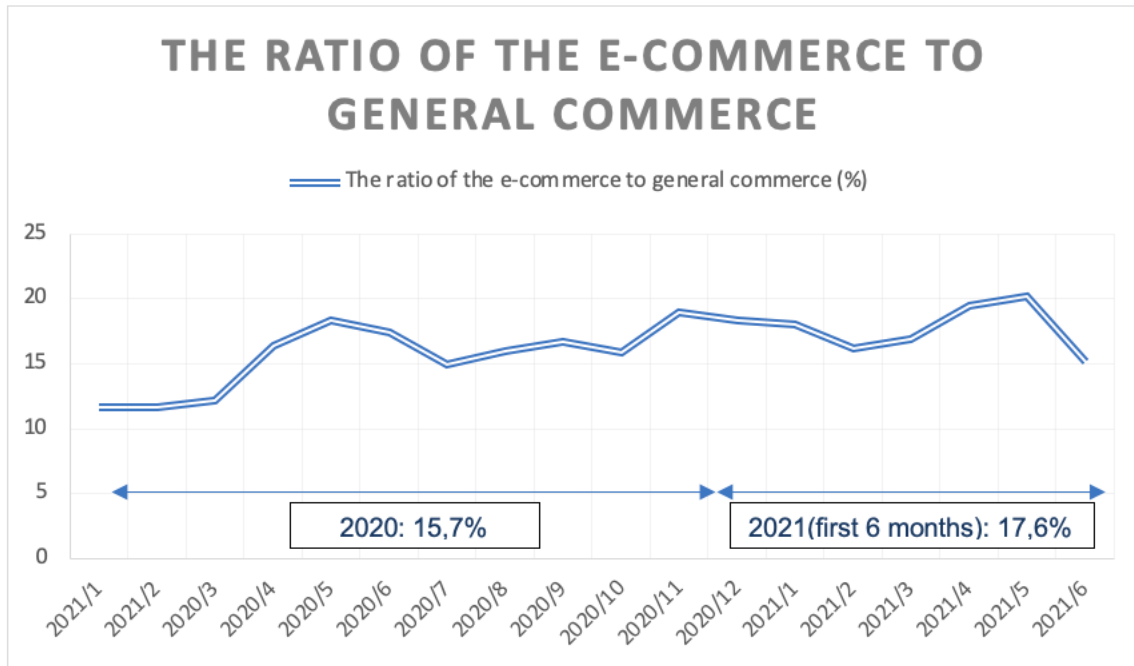


Figure 14 : The ratio of the e-commerce to general commerce (Turkish Ministry of Commerce, 2021)

The comparison below (Figure 15) shows the rate of e-commerce from 2019 to 2020, it can be seen that there was a constant improvement, especially in June 2020 there was almost an increase of 95% happened.

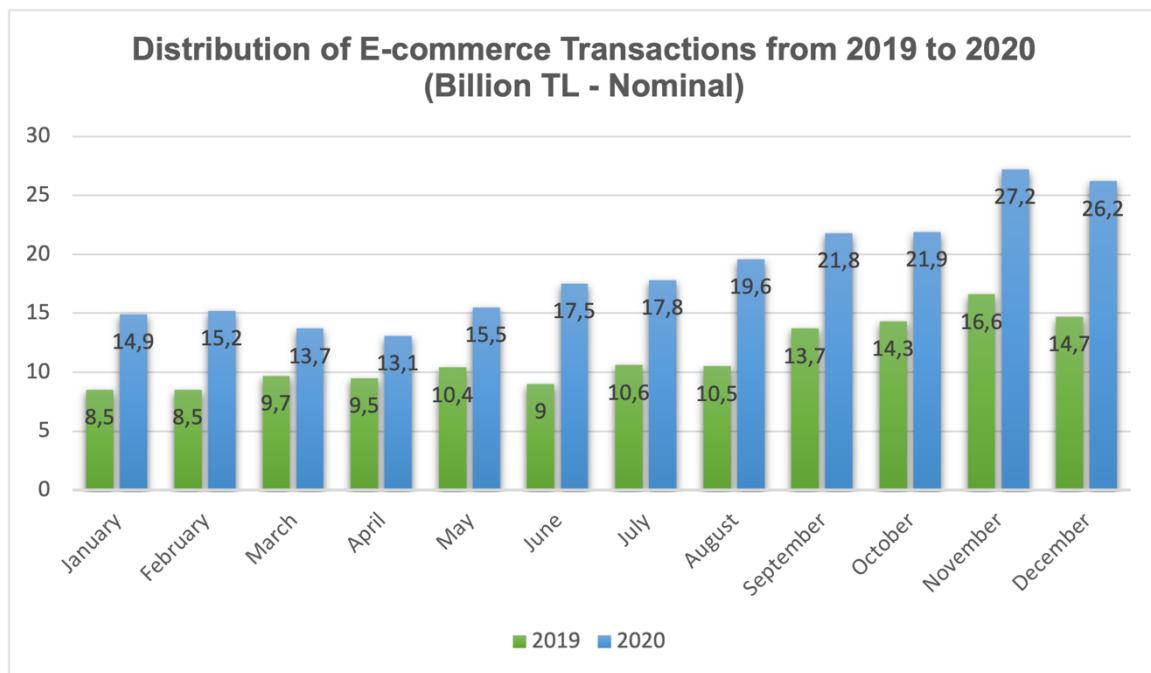


Figure 15: Distribution of E-commerce Transactions from 2019 to 2020 (Turkish Ministry of Commerce, 2020)

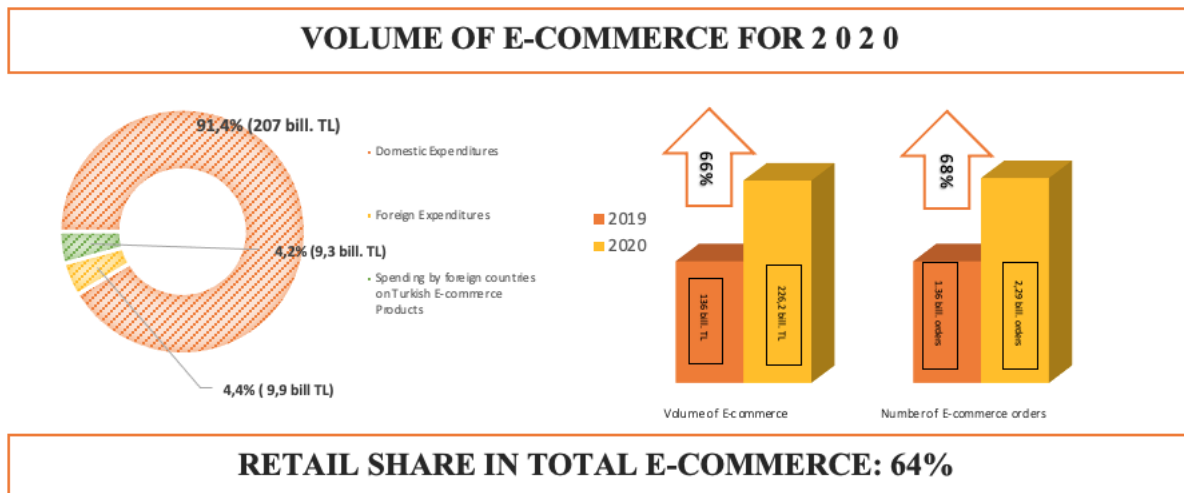


Figure 16: Volume of E-commerce in 2020 (Turkish Ministry of Commerce, 2020)

Then in figure 16, the volume of e-commerce in Turkey has increased from 136 billion TL to 226.2 billion TL from 2019 to 2020 which is an increase of 66% in only a year. Domestic expenditures share is 91.4% and the share of spending by foreign countries on Turkish e-commerce products is 4.2% (9.3 billion TL). In conclusion, it is possible to say that e-commerce is a rapidly growing industry in Turkey.

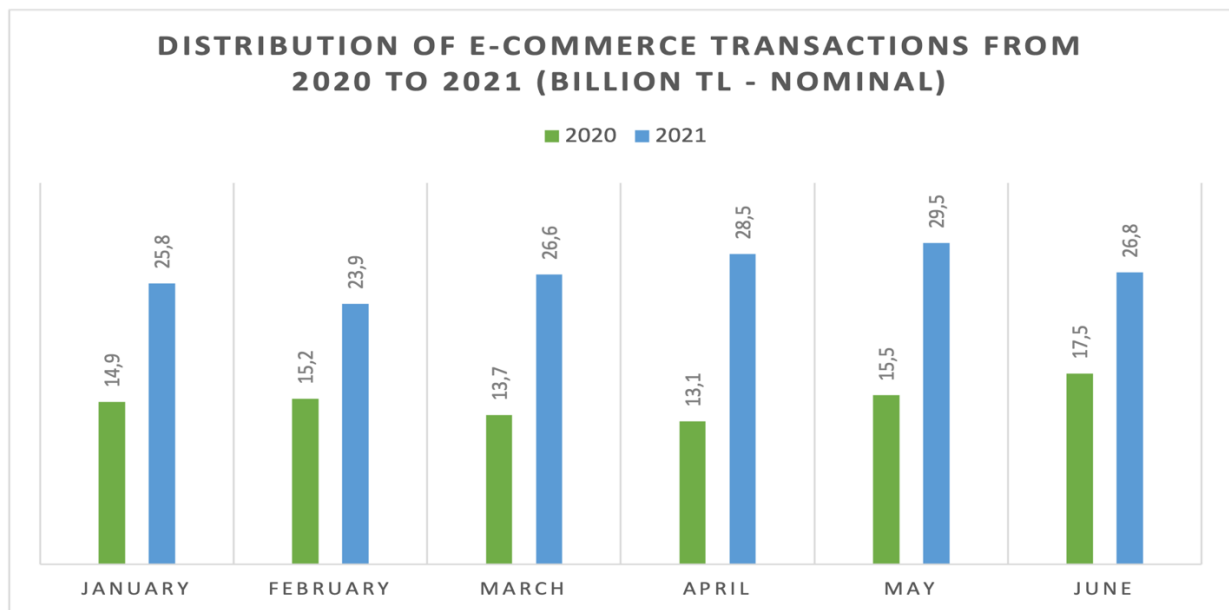


Figure 17: Distribution of E-commerce Transactions by Months (Turkish Ministry of Commerce, 2021)

As figure 17 shows, e-commerce transactions have increased from 2020 to 2021. Also, there is a tendency to rise from January 2020/2021 to June 2020/2021.

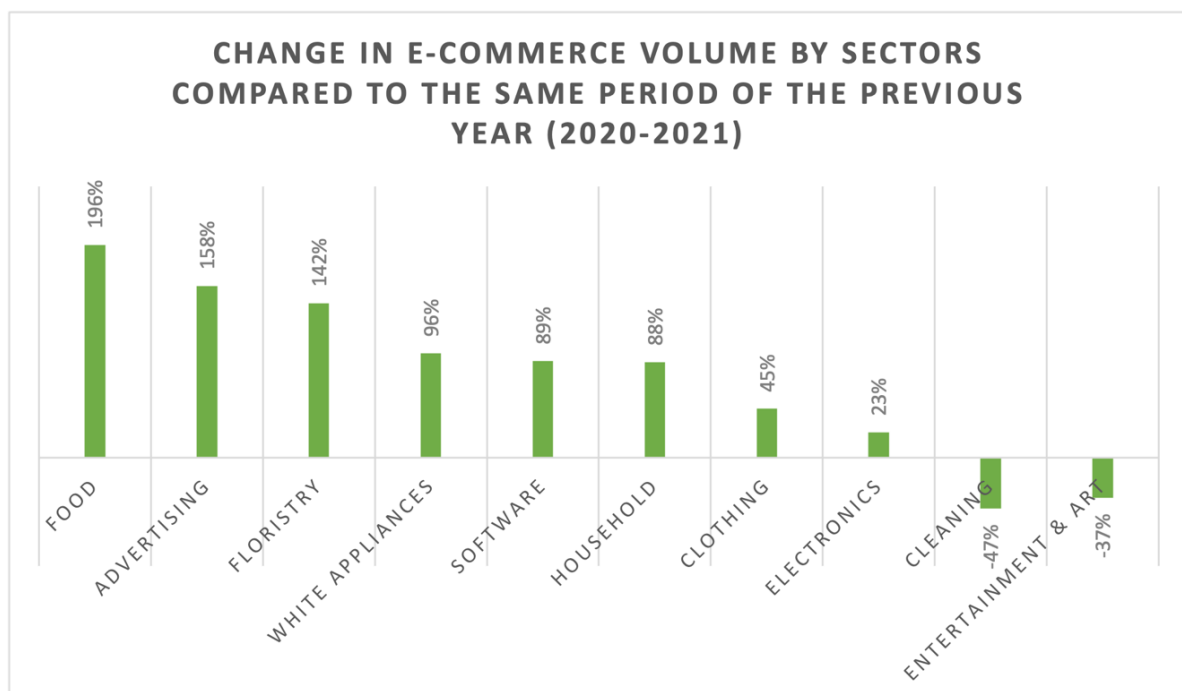


Figure 18: Change in E-commerce Volume by Sectors Compared to the Same Period of the Previous Year (Turkish Ministry of Commerce, 2021)

Figure 18 shows that with almost a 200% increase , Turkish consumers used food related e-commerce brands the most. Interestingly, entertainment and art related e-commerce sites have lost 37%.

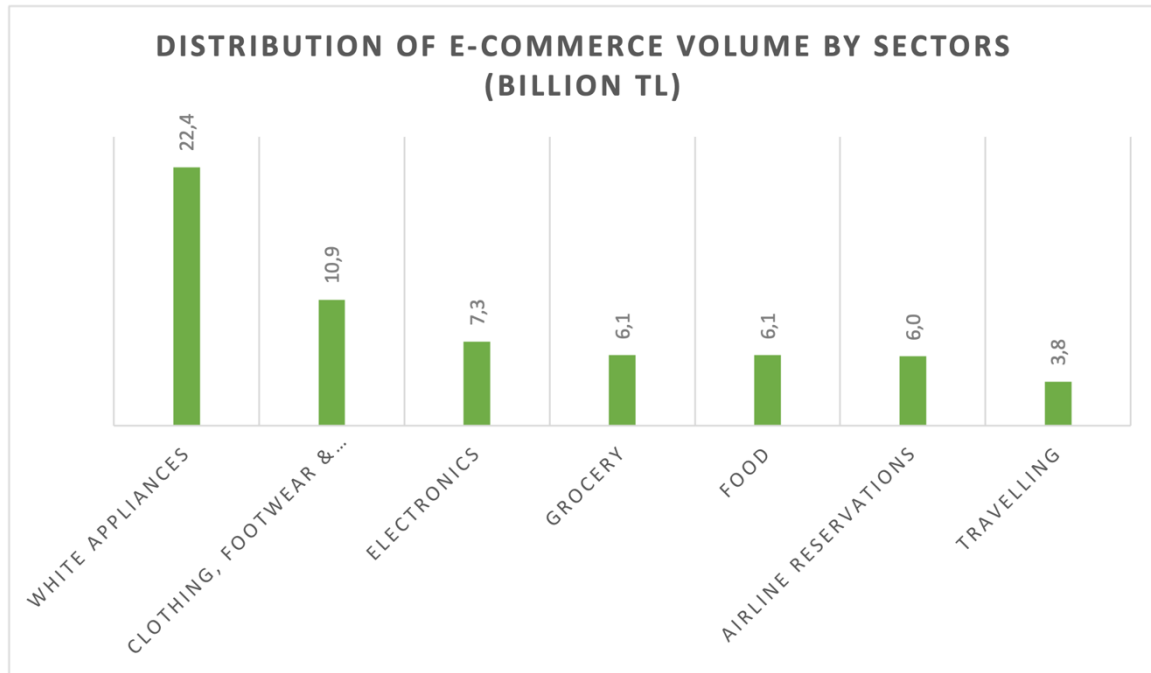


Figure 19: Distribution of E-commerce Volume by Sectors (Turkish Ministry of Commerce, 2021)

However, when the e-commerce volume is evaluated on the basis of the sector (figure 19) , white goods and small household appliances are approximately 22.4 billion TL, clothing, shoes and accessories are around 10.9 billion TL, and the electronics sector covers 7.3 billion TL.

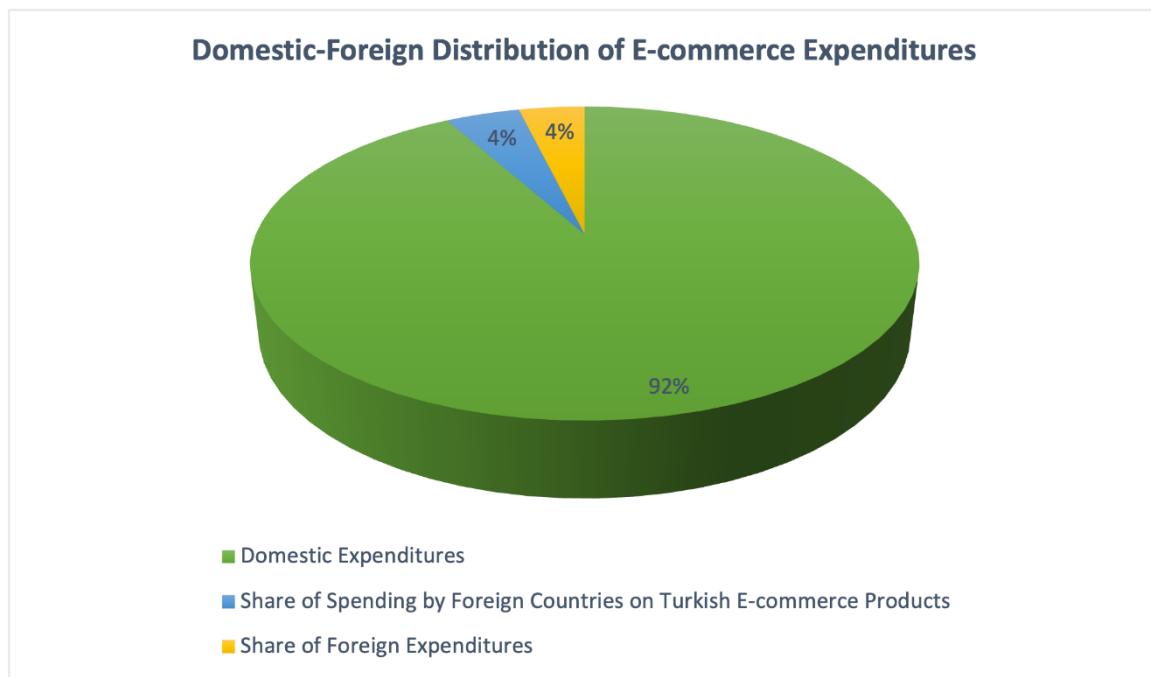


Figure 20: Domestic-Foreign Distribution of E-commerce Expenditures (Turkish Ministry of Commerce, 2021)

In the first 6 months of 2021; the share of domestic expenditures on e-commerce websites is 91.9% with 148 billion TL, the share of spending by foreign countries on Turkish e-commerce products is 4.3% with 6.92 billion TL and finally, the share of foreign expenditures is 3.8% with 6.07 billion TL.

3.Domestic Firms' Analyses

The Trendyol report published in 2021 includes 969 Trendyol seller surveys, seller interviews, and Trendyol statistical data. In general, among the positive effects of the growth of e-commerce in Turkey, its contribution to digital transformation in areas such as new employment and growth in the economy and gender equality in business life is seen. Sales can be made to approximately 200 countries through Trendyol and 98% of the sellers are domestic

(PAL, 2021). In this way, the domestic producer, which opens to foreign markets through digital means, can both make small-scale e-exports and find more suitable environments for innovation. In terms of traditional channel trade, seller surveys support that their sales have increased greatly with Trendyol. This shows us that small shopkeepers who can adapt to digital transformation, technology, and new customer demands can earn more.

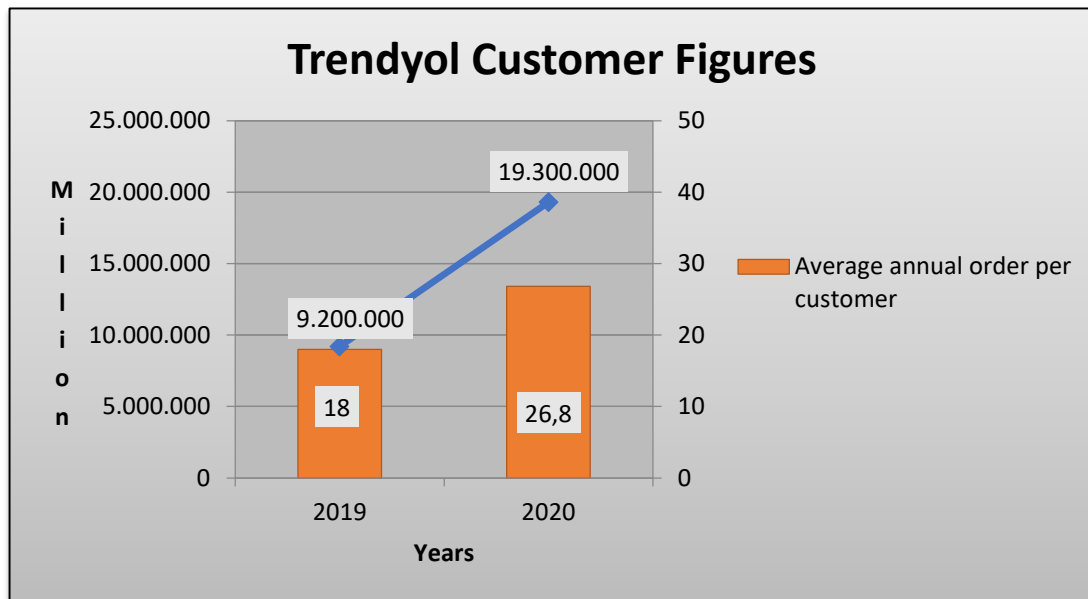


Figure 21: Trendyol Customer Figures (PAL, 2021)

The figure 21 shows the average annual order of customers and the total size of customers shopping from Trendyol for the years 2019 and 2020. In this period, it is observed that the average order per customer increased by 48%, and the total customer volume increased by approximately 110%. According to the chart, the transaction density of Trendyol, which is one of the most important players in the Turkish e-commerce market, has greatly increased. Here, in fact, the effect of the previously mentioned Covid-19 on consumer behavior is supported by data. It would not be right to ignore the effect of Covid-19 for a huge 110% increase. Customers preferred online orders instead of shopping malls, bazaars, and markets. Both variables show an increasing trend. While the annual total shopping amount was 165,600,000, it reached a figure of 517,240,000.

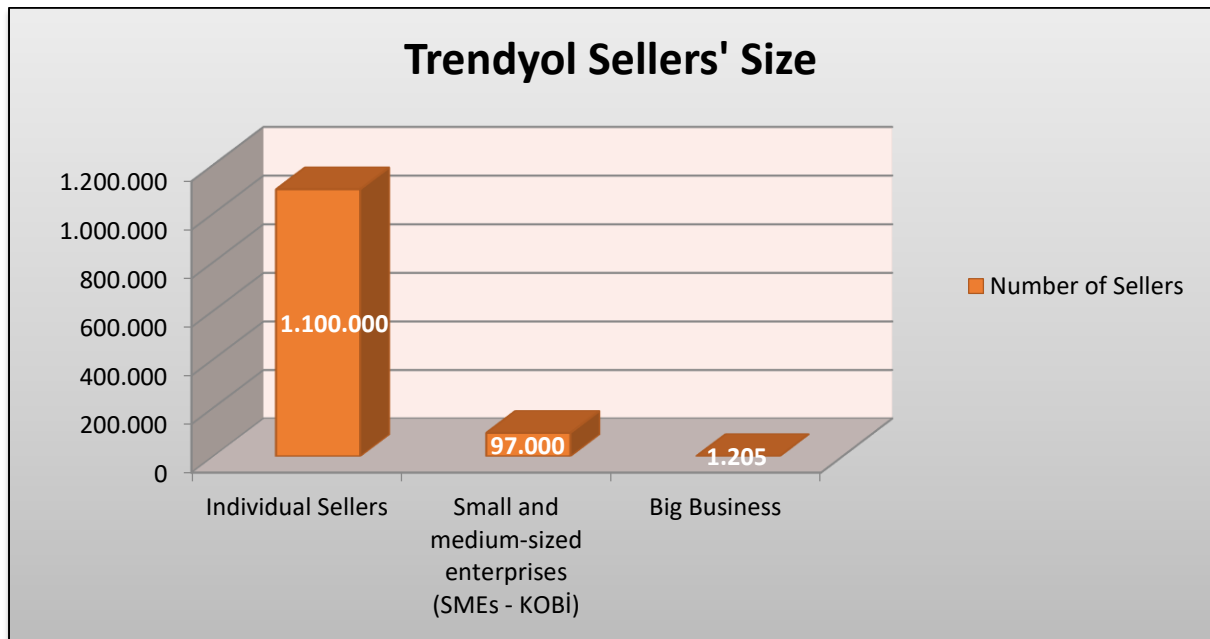


Figure 22: Trendyol Sellers' Size (PAL, 2021)

Figure 22 shows the size of Trendyol sellers. With a huge number of 1,100,000, individual sellers make up the surplus. Apart from that, SMEs are in second place with 97,000. Trendyol has large businesses but almost only 1% of small sellers. In other words, small shopkeepers using traditional trade channels find the opportunity to reach a wider market through Trendyol. This digital platform can enable small businesses to open up to new customers, perhaps overseas channels. Here we can talk about a cycle. Through this digital platform, individual sellers are growing into SMEs, and these SMEs can find opportunities to grow more. In short, figure 22 shows that e-commerce sites like Trendyol offer a different channel opportunity to SMEs rather than the disappearance of traditional trade and small shopkeepers. In fact, due to its nature, the platform consists of small businesses and individual sellers which forms the traditional trading channel.

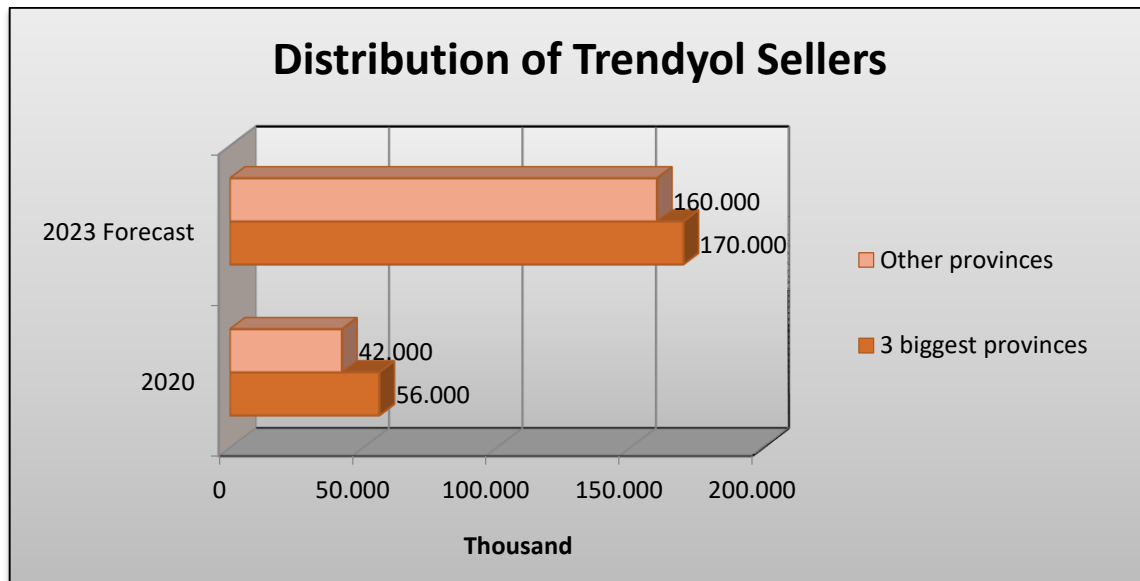


Figure 23: Distribution of Trendyol Sellers (PAL, 2021)

Figure 23 shows the city distribution of Trendyol sellers in Turkey. It is divided into two as 3 big provinces and other provinces. It is possible to evaluate these 3 big cities as areas where corporate companies, large businesses, and population are concentrated. At first, this may seem to produce a negative association. However, the population needs to be considered here. Today, Ankara and Istanbul have populations of about 20,000,000, almost 25% of Turkey's total population. Therefore, the fact that the values are very close to each other supports the spread of e-commerce throughout Turkey. In addition, according to 2023 forecasts, these figures will increase by approximately 200% for both parties.

Hepsiburada is also one of the most important e-commerce platforms in the Turkish market. It has grown both in terms of brand awareness and sales volume, especially during the pandemic period. According to the research conducted by Deloitte, the number of businesses has doubled in all regions where it is in the pandemic. (Deloitte, 2021).

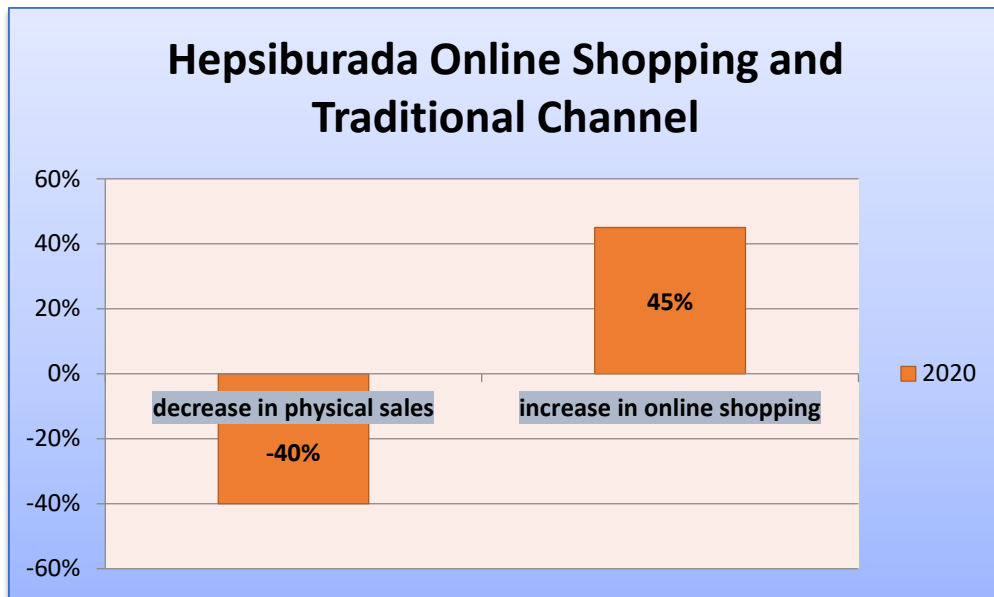


Figure 24: Hepsiburada Online Shopping and Traditional Channel (Deloitte, 2021)

According to Deloitte's research, while traditional physical sales decreased by about 40% during the pandemic, these businesses increased their sales by around 45% through Hepsiburada. Contrary to Trendyol analysis, this data gives the impression that traditional trade has shifted rather than reaching new channels.

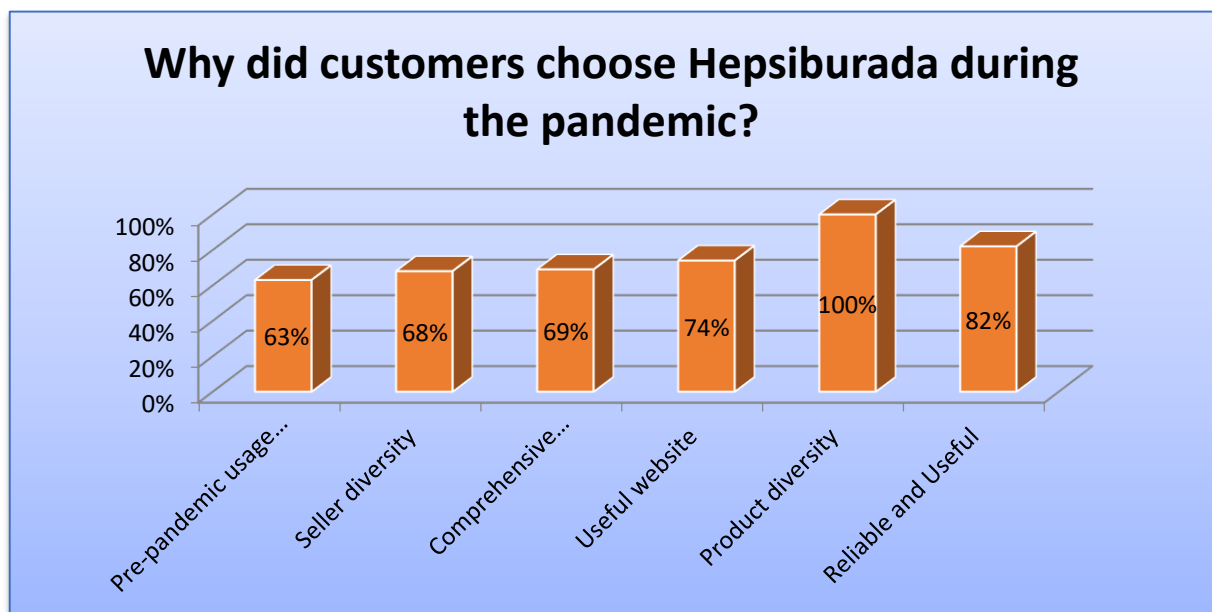


Figure 25: Why did customers choose Hepsiburada during the pandemic? (Deloitte, 2021)

Knowing why customers use Hepsiburada during the pandemic is also important for other parts of the analysis. In Figure 25, the most important reason is product diversity and the least important reason is pre-pandemic usage habits. According to this research, the diversity of products and sellers that are difficult to reach in physical markets has made Hepsiburada attractive. At the same time, comprehensive information and product reviews enable customers to shop with confidence. These advantages may apply to many successful e-commerce platforms. However, factors such as product and seller diversity, and easy access to information and orders make e-commerce very advantageous over traditional trade channels. This creates the danger of consumers being completely disconnected from the traditional channel, namely physical shopping, in the future.

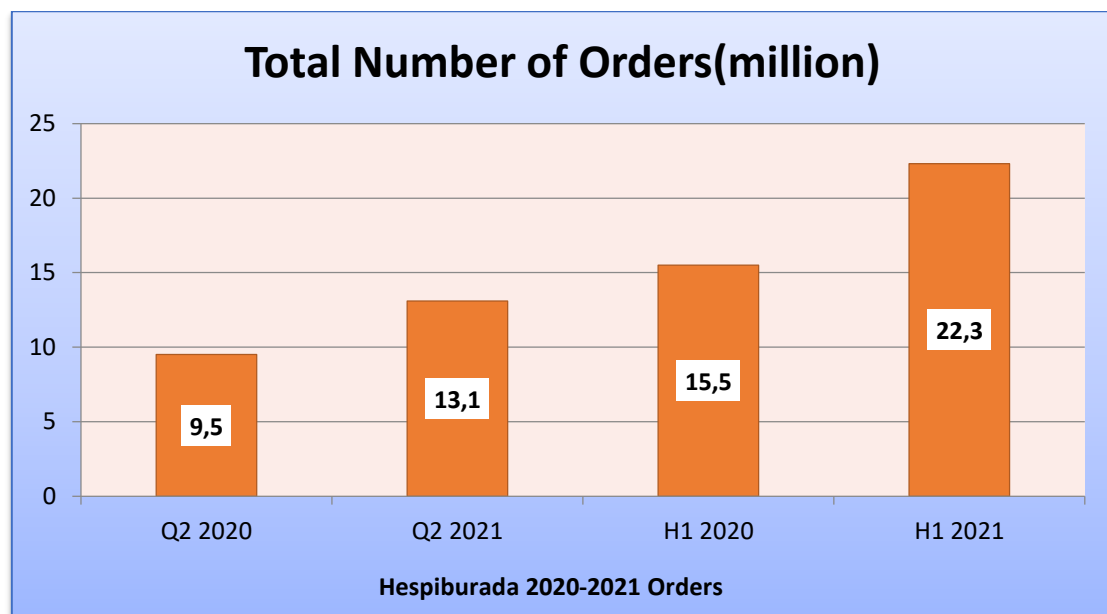


Figure 26: Total Number of Orders (Hepsiburada, 2021)

As seen in the chart above, between the second quarter of 2020 and the second quarter of 2021, the total order amount in Hepsiburada reached 13,100,000, increasing by approximately 38%. Likewise, when the first half of 2020 and the first half of 2021 are compared, an increase of close to 45% is observed. If we interpret this, it can be said that the customer is now well used to online shopping with the pandemic. Also, the rise of e-commerce and the agile methodologies of platforms such as Trendyol and Hepsiburada continue to attract the attention of both customers and sellers to this sector. As can be clearly seen from Figure 26, Hepsiburada is gradually increasing its volume similar to Trendyol and it is predicted that this will be the case in the future. Therefore, whether the impact on the traditional trade channel will be positive or negative is related to the adaptation of these businesses owners to the process.

One of Turkey's leading food ordering websites, Yemeksepeti.com, has launched a feature called Yemeksepeti Banabi, which is an online platform for grocery shopping. It attracts many consumers by saving them the effort and time of physical market visits. This attraction grew even more with the Covid-19 outbreak. Banabi has shared their 2020 data with their consumers in the form of infographics on their social media platforms. According to the shared data, compared to 2019, Banabi's order volumes have grown 6.5 times bigger in 2020, especially after the first covid case announced in Turkey in March (Banabi,2020). The CEO of Yemeksepeti, Nevzat Altun, shared that after the pandemic occurred, the demand for hygiene products and groceries increased rapidly on Banabi and parallel to the overall increase in the demand for their goods, the average basket amount of the orders rose as well (Önemli,2020).

İstegelsin is another well-known platform for online grocery shopping. According to the statistics shared by İstegelsin's Managing Director Sedat Yıldırım, they have experienced an 80% increase in their sales after the pandemic outbreak in March 2020. To be able to answer such intense interest and provide good service, they enlarged their delivery team by adding around 100 more employees to their crew. He further states that while the frequency of shopping increased, their average basket amount expanded by 25%, and the quantity of products in the baskets doubled. Yıldırım shares that the shopping behavior of their users was more on basic needs like hygiene products when the pandemic first started. After the period of staying home extended, the shopping habits of the consumers began to go back to normal slowly (Önemli,2020).

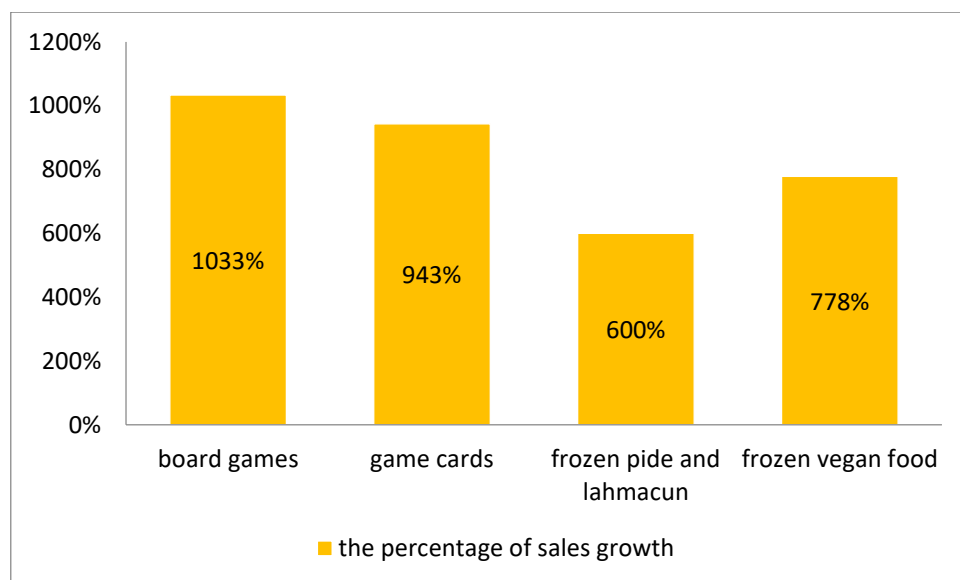


Figure 27: The percentage of sales growth of particular products on istegelsin.com during the pandemic (İstegelsin, 2020)

Furthermore, there is interesting data shared by Yıldırım, about the increase in the sales of some goods that they market on their website. As we can see from Figure 27 above, the sales of board games increased by 1033%, whereas the sales growth of game cards was 943%.

During this period, the sales of frozen pide, lahmacun, and vegan food went up extremely high as well.

Looking at the drastic increase in the demand for such products and grocery shopping online in general, it is inevitable that e-commerce websites like Banabi and İstegelsin will have to adjust their business strategies accordingly to meet the needs of the consumers even after the pandemic.

CASE OF TURKEY AND FURTHER RECOMMENDATIONS

Even before the Covid-19 outbreak, e-commerce was a growing trend in Turkey. However, it is evident that this pandemic has played the role of a catalyzer and rapidly increased the volume of e-commerce in Turkey since the pandemic has transformed consumers' shopping habits all around the globe (Turkish Ministry of Commerce,2020). In this period of a global outbreak, digital platforms and technologies provided an alternative route for continuing commercial activities, social contacts, and consumption during the periods of rigorous preventive measures such as lockdowns that are implemented accordingly to the “Stay at Home” campaigns of the Ministry of Health of Turkey. During these lockdowns, traditional commerce channels have appeared to struggle. Many of them reverted to online shopping platforms to gain back their customers and reach a broader consumer group without the need to host them in physical stores. This could be one of the reasons for the increase in the e-commerce volume in Turkey, as discussed in the data analysis part of the paper. It is observed that after Covid-19, there occurred a substantial consumer base for online shopping in Turkey. The study by UNCTAD and Netcomm Suisse eCommerce Association, in partnership with NIC.br and Inveon(2020), showcases that many Turkish consumers are shopping more often online than before. The same survey found out that consumers in Turkey express a high liking for purchasing through digital platforms rather than in actual stores in terms of their future shopping channels (UNCTAD,2020).These findings are crucial for

businesses in Turkey to shape their channels according to the changing taste of the customer base in Turkey.

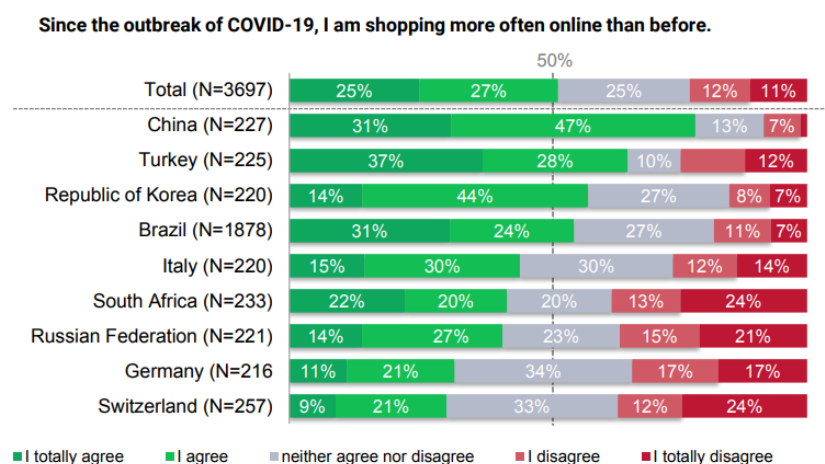


Figure 28: Since the outbreak of COVID-19, I am shopping more often online than before.

(UNCTAD & Netcomm Suisse eCommerce Association, 2020)

In response to this increasing demand from the consumer side, e-commerce channels also increased in numbers. The chairman of the Association of E-Commerce Operators (ETID), Emre Ekmekçi, shares that the quantity of small and medium-sized enterprises(SME) that are involved in electronic commerce grew from about 70.000 to 100.000 in 2020 after the pandemic occurred (Şahin, 2021). Ekmekçi further states that new business models have come to the forefront to potentially back up the increased demand and supply.

He lastly points out: "All small or large-scale companies that have overcome the physical restrictions imposed because of the coronavirus with investing in e-commerce and providing service online have won in this period." (Şahin, 2021).

To sum up, these statements above portray an important image for the future of traditional and electronic commerce in Turkey. It is obvious that there is a shift in consumer preferences in terms of where to purchase goods and services, and e-commerce has come to the spotlight after the Covid-19 outbreak. Moreover, the effects of the pandemic on online

activities are likely to be outlasting for Turkish consumers(UNCTAD,2020). Therefore, it is essential for traditional trade channels to keep up with these online trends. Making use of online platforms to market their goods and services while continuing their offline stores could be a fruitful option for them as they will reach more and more customers through these online shopping websites like Trendyol and Hepsiburada.com. For e-commerce channels, it is crucial to implement new strategies and business models to be able to keep up with their competitors. Using social media platforms to stay in touch with consumers and innovative advertising could be beneficial options and bring satisfying business outcomes. In short, it seems safe to say that in this growing trend of e-commerce, businesses in Turkey need to step up their game to stay in the game even after the pandemic.

CONCLUSION

In conclusion, it is true that the development of e-commerce has changed the shopping routines of many people. However, it created new sources of employment such as shipping, warehouses, data business analyses positions, influencer marketing, trade software systems, cyber security and transactions. Also, because of e-commerce's characteristic features, small businesses are able to reach a wider audience by using these platforms. Therefore, for small establishments that can adapt to the changes in commerce & the ones that can use both e-commerce platforms and traditional commerce ways are going to change for the better. It is vital that these traditional trade channels adapt to the e-commerce ecosystem and become more innovative in their products,marketings and sales strategies. As for the businesses that cannot make use of this opportunity; they might not have a chance to survive in such a competitive market in the long-run.

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