



Research Article

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COVID-19 IMPACTS ON RETAIL SECTOR: AN EVENT STUDY APPROACH ON TURKISH RETAILERS ¹

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ABSTRACT

Retail sector, as well as other sectors of the economy, has been affected by Covid-19 pandemic severely globally, and as this study aims to examine, in Turkey. An indicator that shows if a sector was impacted by a phenomenon is the rate of return on the stock value of the businesses in that sector, therefore, Event Study is applied on the data driven from Istanbul Stock Market (BIST) on active retailers during the pandemic days in order to find out how the outbreak affected them. In the end, some suggestions to the managers and retailers on how to utilize new trends in their businesses are discussed.

Keywords: Retail, Trends, Event Study, Rate of Return

COVID-19'UN PERAKENDE SEKTÖRÜNE ETKİLERİ: TÜRK PERAKENDECİLERİNE OLAY ÇALIŞMASI YAKLAŞIMI

ÖZET

Ekonominin diğer sektörleri gibi perakende sektörü global ölçekte ve Türkiye’de Covid-19 pandemisinden ciddi şekilde etkilenmiştir. Bir sektörün bir olgudan etkilenip etkilenmediğini gösteren göstergelerden biri, o sektördeki işletmelerin hisse senedi değerlerindeki getiri oranlarındaki değişimdir. Bu nedenle, Covid-19 salgınının halka açık perakende sektörü şirketlerini nasıl etkilediğini incelemek amacıyla Borsa’da işlem gören perakende şirketleri hakkında Borsa İstanbul (BİST)’ten alınan veriler üzerinde "Olay Çalışması" yöntemi uygulanarak etkileşim düzeyi tespit edilmiştir. Son olarak, işletme yöneticilerine ve perakende sektöründe faaliyet gösteren şirketlere yeni trendleri işletmelerinde nasıl değerlendirebilecekleri konusunda bazı önerilerde bulunulmuştur.

Anahtar Kelimeler: Perakende, Trendler, Olay Çalışması, Getiri Oranı

1. INTRODUCTION

Retail sector is a significant part of Turkey’s businesses and there are different companies, from small businesses to big holdings involved in this sector; therefore, investigating the events that can affect this industry has utmost significance. It is not a secret that with Covid-29 emerging, a lot of businesses shut down and some other went so slow that they were actually on hold; however, some retail companies continued to work even during the pandemic (specially the grocery stores) to provide for the people in lockdown. Being aware of how major retail companies that are involved

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in BIST behaved during the pandemic helps planning for future in case another pandemic happens. Also, it points out the fragile points of the sector that managers can remedy in their future planning.

The fact that stock market and real economy (investment, production, output and demand) have a strong correlation through various channels is a well-known fact (Orhan & Tirman, 2020). Therefore, the main purpose of this study is to show how Covid-19 pandemic affected stock value of retailers. Event study is used to read and analyze data.

2. LITERATURE REVIEW

The literature review consists of 3 main sections: a brief history on retail in its background in Turkey, how Covid-19 emerged and impacted the world and Turkey, and a short review on Istanbul Stock Market.

2.1. Literature Review on Retail

To put in simple words, a retail format (or retail formula) is a marketplace: a designated location to exchange products and services; they can be in the form of small family-run stores or large retail chains (Constantinides, 2006). Retail stores can be categorized based on the product/service they offer into these categories: Food, Softline, Grocery and Convenience, Hardline, Specialist.

The era from industrial revolution to 21st century is considered the modern retailing era (Niemeier, Zocchi, & Catena, 2013). During mid to late 19th century, department stores came to life in major cities and permanently changed the tastes and habits of consumers (Koot, 2011). It was in the same period that mail ordering gained attention and helped retailing thrive (Goldstein, 2013). The first shopping mall in the format we see today (indoor plaza with parking spots and several shops) was Northland Mall near Detroit which was opened in 1954 under the architecting plans of Victor Gruen (Gladwell, 2004). Over the 20th century, the trend was larger stores in square feet but the trend didn't last long (Paquet, 2003). In 21st century, a Retail Apocalypse happened as a result of increasing online sales and business debts which made numerous brick and mortar retail stores to close physical shops and switch to online platforms (Helm, Kim, & Riper, 2020).

Social and economic developments in Turkey in early 2000s impacted its retail industry and made them take a modernized approach (TFSCR, 2016). Based on reports from Turkish Statistical Institute (TUIK), Retail Sales Year on Year in Turkey reached its peak in April 2021 with +43.09% while the lowest percentage was in April 2020 with -20.05% (TUIK, 2022). The difference is considerable but the average sales YoY is +6.62% from 2006 to 2022 which shows a steady growth over the years. TradingEconomics interprets data from TUIK as after the financial crisis of 2008, Turkey had a boost in sales up to 2011 which then came down in 2012. The changes have been steady from 2012 to 2019 which has a significant down going (in the month prior to Covid-19); however, the most erratic behavior is seen since pandemic started up to now (TradingEconomics, 2022).

A report from ReportLinker published in 2021, based on both historic and forecasted data, and considering the impact of Covid-19, gives more accurate insights on what to expect from retail in Turkey by 2025 (Reportlinker, 2021):

- 12.8% CAGR (Compound Annual Growth Rate) rate from 2020 to 2025 is anticipated for retail industry in Turkey.
- Researchers are looking forward to a 13.8% CAGR from 2020 to 2025 in Electricals to make the industry the fastest growing sector in Turkey.



- Food and Grocery was expected to be the dominant sector in 2020.
- Maximum growth from 2020 to 2025 is forecasted for vending machines retail channel with the CAGR rate of 25.9%.

2.2. Literature Review on Covid-19

Coronavirus first occurred in Wuhan, China in December 2019 and in less than a month, it became a serious outbreak to a point that China notified World Health Organization (WHO) on December 31st (Singhal, 2020). Over the next months, the number of infected cases increased exponentially inside and out of China until WHO announced a global pandemic on March 11th 2020; as a result, full or partial quarantines were put in place all over the world to try to contain the number of infected cases (CNN, 2022). Different pharmaceutical companies started working to develop a medication and also a vaccine against the virus. On October 22nd 2020, FDA approved Remdesivir as the first Covid-19 drug (Staff, 2021). On December 11th 2020, Pfizer-BioNTech became the first vaccine that got FDA approved (FDA, 2021); followed by other companies such as AstraZeneca, Moderna, Johnson & Johnson, Sinovac and Sputnik V.

Covid-19 first appeared in Turkey on March 11th 2020 (Ministry of Health, n.d.) when a citizen came back home from a travel to Europe. There have been 17005537 reported cases from then to November 13th 2022. A few days after the first case, first death happened on March 15th 2020 (Ministry of Health, n.d.). From then, to November 13th 2022, number of deaths reached 101400 (Ministry of Health, n.d.). Here is a brief overview on precautions and safety measurements Turkey took against Covid-19 (Wheeler, Okutur, & Kacar, 2020):

- Travel bans on 68 countries (both to and from)
- A mandatory 14-day quarantine was imposed on all passengers from travel banned countries (even the people returning from Umrah)
- Schools were suspended: distance learning was used via different online channels
- All social places put a hold on their activities: coffee shops, movies, gyms, ...
- Restrictions on elderly citizens (over 65 years old) and the ones suffering from chronic diseases on leaving their house
- Increase in the number of Covid-19 test labs
- Private hospitals were required to join pandemic hospitals to provide health services to Covid-19 patients

The vaccination began in Turkey on January 14th 2021 (Covid-19 Vaccine Information Platform, n.d.). Results of a study done in Turkey (Sonmezer, et al., 2022) show that 62.7% of participants lean in favor of vaccination. Researchers believed that people with previous experience with Covid-19 or Influenza vaccine, in addition to people with higher education (bachelor degree and higher) have more tendency toward Covid-19 vaccination. On the other hand, elder people were more likely to avoid vaccination or need extra motivation to do the vaccination. Today, there are 4 different vaccines available in Turkey: Pfizer-BioNTech, Sinovac, Sputnik V, Turkovac (Aydogan, 2021). As of December 8th 2022, based on Turkish Ministry of Health platforms for Covid-19 and vaccination, rate of 1st dose vaccine in Turkey is 93.35% and rate of 2nd dose vaccine is 85.68%.

Like almost all other countries, Covid-19 has affected Turkey's retail too. Retail sector has been hit mostly in these 5 main areas (Strategy&, 2022):



- Daily consumer behavior was modified due to the restriction in mobility as a result of Covid-19 precautions restrictions
- E-commerce thrived during the pandemic as a form of retail
- The most frequently used online channel over the pandemic (and specially on the lockdown days) were mobile devices
- Use of online platforms has spread through the population
- The number of businesses who engaged in online channels increased

2.3. Literature Review on Istanbul Stock Market

The Istanbul Stock Exchange (ISE) was founded in 1986 to “provide trading in equities, bonds and bills, revenue-sharing certificates, private sector bonds, foreign securities and real estate certificates as well as international securities” (IMKB, 2012). ISE memberships went to banks and brokerage houses.

On April 3rd 2013, the Borsa İstanbul (BIST) was emerged by merging the Istanbul Stock Exchange (ISE; also known as IMKB), the Istanbul Gold Exchange (IAB) and the Derivatives Exchange of Turkey (VOB) with founding capital of 423,234,000 TL (approximately 240 million USD), although the operation began on April 5th 2013 (TRT, 2013). BIST’s slogan is *worth investing* (HurriyetDailyNews, 2013). BIST has different shareholders, including: Government of Turkey (49%), İstanbul Menkul Kıymetler Borsası (IMKB, 41%), Vadeli İşlem Opsiyon Borsası (VOB, 5%), IMKB members (4%), IMKB brokers (1%) and İstanbul Altın Borsası members (IAB, 0.3%) (Güler, 2013).

3. EVENT STUDY METHODOLOGY

In order to find an answer to the research question (finding impacts of Covid-19 on retail sector in Turkey) we will use Event Study. This method which was first introduced in 1968 by Ray Ball and Philip Brown (Ball & Brown, 1968) is a statistical methodology that evaluates a firm’s value based on the effect(s) of a specific event (Black, 1995). Event Study is a very adoptable approach as it reveals the changes on the stock values (both in magnitude and direction) resulted from any type of event. Therefore, researchers use this method in various areas such as Finance, Law, Operations and Supply Chain Management (OM and SCM), Economics or even Information Technology (IT) (Ding, Lam, Cheng, & Zhou, 2018).

Event Study sets an approximate window ahead of the actual event. Then, by using the data from this approximate window, it estimates how the stock returns should have been (normal returns) for the affected firm(s) during the event period. As the last step, the difference between Normal returns and Actual returns is calculated to find the abnormal returns of the event. There are different normal return models based on their specifications in Event Studies, with Market model being the most common one (MacKinlay, 1997).

In 2014, researchers reviewed all the prior Event Studies in Turkey with the objective of finding common components in their designs (Basdas & Oran, 2014). Results showed that BIST-100 was the primary market index for Event Studies in Turkey. They observed that generally only one type of model is used to calculate Abnormal Returns. In cases of the event being a political one or macroeconomic announcements, since there is only one event and all data is gathered around that single date, a risk of clustering was highlighted; therefore, they warned about including a sufficient number of events. In the end, they suggested an application of both parametric and non-parametric tests to consider high non-normal behavior in returns.



A recent Event Study was done on how Covid-19 pandemic affected residential real estate prices in Turkey (Kaynak, Ekinc, & Kaya, 2021). The event window selected for this study is 11 months (October 2019-September 2020): the event month was chosen as March 2020 (first appearance of Covid-19 in Turkey) with 5 months post and pre-event. By applying this methodology, it was concluded that the expectations were correct and the pandemic had a negative effect on Abnormal Returns.

On another similar research, the impact of Covid-19 pandemic on Borsa Istanbul (BIST) was investigated with Event Study (Göker, Eren, & Karaca, 2022). By retrieving historical data from Investing website (tr.Investing, n.d.) on some selected sectors, researchers found out that the first death (due to Covid-19), had a negative impact on Banking and Transportation sectors and positive impact on Telecommunication and Food-Beverages sectors. The negative impact on the first two sectors continued after the pandemic started; at the same time, the positive impact on the last two sectors resumed during the outbreak. In the end, it was concluded that among selected sectors, Banking sector was most severely affected by Covid-19.

Table 1 shows some of the studies that were done globally on the Covid-19 pandemic with Event Study methodology.

Table 1. Event Study Methodology Examples in Covid-19 (Sayed & Eledum, 2021)

Reference	Sample	Dependent Variable	Findings
Liu, Manzoor, Wang, Zhang, and Manzoor (Liu, Manzoor, Wang, Zhang, & Manzoor, 2020)	21 Leading stock market indices in major affected countries	Stock market indices in different countries	Stock market fell quickly after the pandemic in the examined countries
Liu, Wang, He, Wang (Liu, Wang, He, & Wang, 2020)	Chinese and Asian stock markets indexes	Chinese and Asian stock markets	The CARs were negative in all event windows
Selmi and Bouoiyour (Selmi & Bouoiyour, 2020)	G7 countries: France, Germany, Japan, the United Kingdom, the United States, Italy and Canada	Stock market indexes	Flow of products/services was interrupted. Uncertainty as a result of outbreak

3.1. Measuring Abnormal Returns

The model used in this article is market model. Event window is 11 days in total (5 days before and 5 days after). This [-5, +5] event window can show how stock market has been affected.

Rate Of Return (ROR) is calculated with

$$R_{i,t} = \alpha_i + \beta_i * R_{i,M_{i,t}}$$

Where $R_{i,t}$ represents the return rate of stock i on the t 'th trading day; $R_{i,M_{i,t}}$ represents the market return rate of the trading market and α_i and β_i represent the regression coefficients of the daily return rate of the stock i and the market return rate.



Average abnormal rate of return is calculated with

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i * R_{i,M_{i,t}})$$

Cumulative Abnormal Return (CAR) rate of stock i in the return window is calculated with

$$CAR_{i(t_1,t_2)} = \sum_{t_2}^{t_1} AR_{i,t}$$

3.2. Sample Selection and Event Dates

There are 14 retail trade companies working in Istanbul trade market; so, it is possible to use data from all these 14 companies for the Event Study and there would be no need to choose a sample from them. However, 3 of these companies were not involved in BIST during our selected dates so we only use data from the remaining 11 ones (historical data retrieved from tr.investing.com). Here is a breakdown of these 11 companies: grocery store (4), textile (1), clothing (1), commodity (1), oil industry (2), transportation vehicle, real estate (1), multimedia (1).

The retailers that are used as our sample are (KAP, Sektörler): “Bimas: Bim Birleşik Mağazalar A.Ş.”, “Bizim: Bizim Toptan Satış Mağazaları A.Ş.”, “Crfsa: Carrefoursa Carrefour Sabancı Ticaret Merkezi A.Ş.”, “Casa: Casa Emtia Petrol Kimyevi Ve Türevleri Sanayi Ticaret A.Ş.”, “Mavi: Mavi Giyim Sanayi Ve Ticaret A.Ş.”, “Mepet: Mepet Metro Petrol Ve Tesisleri Sanayi Ticaret A.Ş.”, “Mgros: Migros Ticaret A.Ş.”, “Mipaz: Milpa Ticari Ve Sinai Ürünler Pazarlama Sanayi Ve Ticaret A.Ş.”, “Sokm: Şok Marketler Ticaret A.Ş.”, “Tknsa: Teknosa İç Ve Dış Ticaret A.Ş.”, “Vakko: Vakko Tekstil Ve Hazır Giyim Sanayi İşletmeleri A.Ş.”.

To be able to observe the impact of pandemic, we are considering 4 major related dates in the Covid-19 timeline: first reported case of Covid-19: December 31st 2019; first reported case of Covid-19 outside China (in Thailand): January 13th 2020; WHO officially declared a global pandemic: March 11th 2020; Pfizer-BioNTech vaccine got FDA approved: December 11th 2020.

3.3. Application of Event Study

As first step, we examine Average Abnormal Returns (AAR) of the entire sample for four events during the event window [-5, +5]. The results are presented in Table 2 and Figure 1.

When Figure 1 is examined, it is seen that AARs remained at a limited level in Event 1, Event 2 and Event 4 periods; and a relatively more stable graph was formed compared to Event 3. On the other hand, it is seen that the graph showed great volatility in the Event 3 period. Moreover, on the +1 day of Event 3, the AARs reached -8.68%. The interpretation is that Event 3 has the effect of deviating stock prices from their real values. In other words, WHO's declaration of a pandemic is more effective on stock returns than other events.

Table 2. Average Abnormal Returns for the Entire Sample

Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	



Event 1	0.10	-0.62	-0.85	-0.11	0.73	1.03	3.35	-0.53	-2.12	0.30	-1.88
Event 2	-2.12	0.30	-1.88	0.33	0.21	1.31	4.47	0.62	-0.61	-0.46	0.70
Event 3	-1.22	1.22	0.01	-4.99	-2.18	4.36	-8.68	0.55	-3.35	-5.77	-0.14
Event 4	-0.15	-0.63	-1.34	1.61	-0.75	-2.03	0.57	0.13	-1.07	-0.43	-1.27

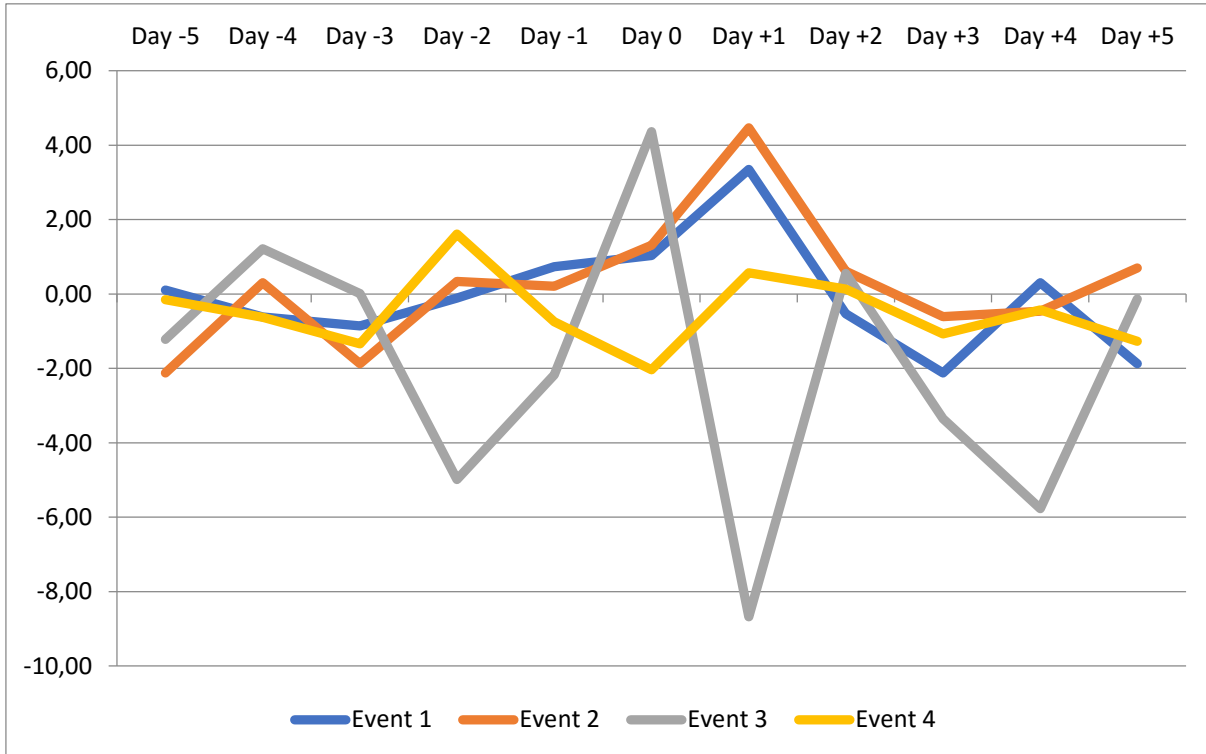


Figure 1. Average Abnormal Returns for the entire sample

The Average Cumulative Abnormal Returns (ACAR) of the entire sample during the period [-5, +5] for the four events examined in the study are presented in Table 3 and visually in Figure 2.

When Figure 2 is examined, it is seen that Event 1 has a negative effect on stock returns, but this effect is minimal (-0.59%). Moreover, Event 2, which includes a date close to the date of Event 1, also follows a similar graph to Event 1 and reflects a limited positive effect (%2.88). These findings are interpreted as the initial cases of Covid-19 reported both in China and outside of China appear to have been underestimated by stock traders. In other words, both events did not attract the attention of the market enough. In the Event 3 period, a dramatic decrease is observed in the stocks. In this period, the ACAR was -20.18%. This finding is interpreted as the global pandemic declaration by the WHO caused anxiety and fear in the markets and deviated stock prices from their real values to a large extent. In other words, Event 3 had a significant negative impact on stock returns. The Event 4 period, resulted in a negative limited effect (-5.36%) contrary to expectations. It is considered that this finding may have been caused by the discussions on the protection of the vaccine at that time.



Table 3. Average Cumulative Abnormal Returns for the Entire Sample

	Day -5	Day -4	Day -3	Day -2	Day -1	Day 0	Day +1	Day +2	Day +3	Day +4	Day +5
Event 1	0.10	-0.51	-1.37	-1.48	-0.74	0.29	3.64	3.11	0.99	1.29	-0,59
Event 2	-2.12	-1.82	-3.70	-3.36	-3.15	-1.84	2.63	3.24	2.64	2.18	2.88
Event 3	-1.22	0.00	0.01	-4.98	-7.15	-2.79	-11.47	-10.92	-14.28	-20.05	-20.18
Event 4	-0.15	-0.78	-2.12	-0.51	-1.26	-3.30	-2.73	-2.59	-3.66	-4.09	-5.36

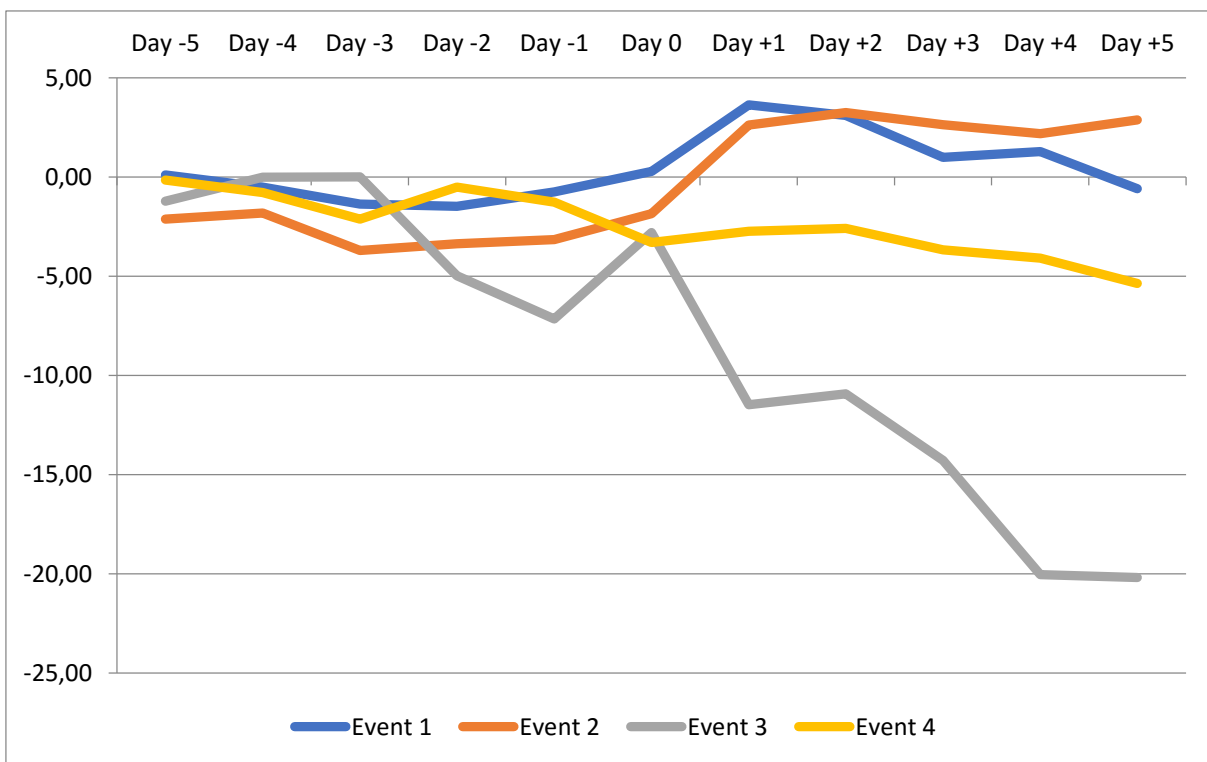


Figure 2. Average Cumulative Abnormal Returns for the Entire Sample

In this part of the study, the Cumulative Abnormal Returns (CAR) of stocks are examined for four main events in three different event windows (pre-event [-5,0], on-event [0,0] and post-event [0,+5]). Both parametric and non-parametric tests were performed for the equality of mean and median values, respectively. The results are presented in Table 4.

At first glance, the mean and median of cumulative abnormal returns appear to be negative in most cases. Besides, it is seen that the t-test and Wilcoxon signed-rank test provide similar results.

Table 4. Cumulative Abnormal Returns During Different Event Window Periods



Event	Window	Mean	sd	Median	t-test		Wilcoxon	
					Statistic	p	Statistic	p
1	Pre-event [-5,0]	-0.74	2.80	0.30	-0.882	0.398	-0.533	0.594
	On-event [0,0]	1.03	2.99	0.37	1.147	0.278	0.800	0.424
	Post-event [0,+5]	-0.88	8.71	-3.87	-0.334	0.745	-0.445	0.657
2	Pre-event [-5,0]	-3.15	2.48	-2.90	-4.221**	0.002	-2.934**	0,003
	On-event [0,0]	1.31	2.21	0.70	1.968	0.077	1.778	0.075
	Post-event [0,+5]	4.72	6.52	3.10	2.402*	0.037	2.490*	0.013
3	Pre-event [-5,0]	-7.15	11.23	-6.32	-2.112	0.061	-2.045	0.051
	On-event [0,0]	4.36	10.21	-0.17	1.416	0.187	0.978	0.328
	Post-event [0,+5]	-17.39	10.67	-19.74	-5.407**	0.000	-2.934**	0.003
4	Pre-event [-5,0]	-1.26	14.44	-4.35	-0.290	0.778	-1.778	0.075
	On-event [0,0]	-2.03	2.68	-1.19	-2.521*	0.030	-2.578*	0.010
	Post-event [0,+5]	-2.07	7.82	-1.96	-0.877	0.401	-0.978	0.328

First, in the pre-event window period [-5,0], the results are significant only in Event 2 and show negative abnormal returns. Equality tests in the mean and median of the five days before Events 1, 3 and 4 show no significant difference from zero. Considering that Event 2 and Event 1 are close to each other in dates, this finding is considered to be a late reflection of Event 1.

Second, in the on-event window period [0,0], the results are significant only at Event 4. Event 1, 2 and 3 days have no significant effect on the stocks. However, the results for Event 4 show negative abnormal returns, contrary to expectations. It is considered that this finding may have arisen from discussions such as vaccine protection and herd immunity, which occupied the public at that time. On the other hand, since it is a result reflecting a single day, it is thought that the stocks may have been priced by other factors as well.

Finally, in the post-event window period [0,+5], the results are significant in Event 2 and Event 3. Equality tests in the mean and median of five days after events 1 and 4 do not show a significant difference from zero. It is considered that the findings related to Event 1 and Event 4 can be explained by the low response phenomenon. On the other hand, it is seen that abnormal returns are positive in Event 2 and negative in Event 3. The finding of a positive impact after Event 2 is interpreted as the market underestimating the real impacts of Covid-19 on global economic conditions. The finding regarding the negative effect of post-Event 3 is remarkable. It is seen that



the greatest impact was experienced after this event. It is considered that the impact of the WHO's statement was increased by the announcement that the first official Covid-19 case was seen in Turkey on March 11th 2020, and by the pandemic measures put into effect the next day.

4. CONCLUSION

Retail sector had been one of the less-risky ones to trade in Turkey since pandemic started; it was one of the low-return low- risk sectors that traders were involved in. One of the reasons that traders never stopped investing in retail was that this industry is one of the primary needs of people. Also, there has always been governmental support for this sector to ensure goods with high demands (especially in the food and beverage area) are constantly available for the public (Öztürk, Şişman, Uslu, & Çitak, 2020). As a result, retail trade is not one of the most suffered sectors from the pandemic (Yeldan & Voyvoda, 2020).

In this article, we applied Event Study Methodology to examine how Covid-19 affected Retail Stock Market in 4 selected dates: first reported case of Covid-19, first reported case of Covid-19 outside China, WHO officially declared a global pandemic, Pfizer-BioNTech vaccine got FDA approved. By comparing data from a [-5, +5] event window of each selected event, we could conclude that the Event 1 didn't impact Turkish retail stock market much. Event 2 gained some attention from traders but still the impact was not meaningful. We observed how erratically the return rates behaved post Event 3, showing that it hit Turkish traders hard and had a deep negative impact on them reaching to the point of -20.18 on 5th day after the event. On Event 4, we observe that Turkish stock market is adjusting itself and getting back to the original curves it used to have at the beginning of the pandemic.

Retail sector in Turkey looks promising for investment in future. One of the utmost important trends that Turkish retailers can benefit from in 2023 is e-commerce platforms. Consumers clearly stated their demands that they want to shop, whenever, wherever. So, the companies that think of future in their planning are ready to adapt to this demand by joining/engaging more in online platforms to provide the consumers with what they need.

These companies add customization to their strategies to not only keep their loyal customers but turn prospect consumers to returning customers. By personalizing products and services, companies are answering consumer's need on getting acknowledged.

Just providing the products and services is not enough to be able to stay in business but companies should have fast, reliable, trackable distribution channels as well. With same-day deliveries, companies encourage shoppers to put their orders there and then and benefit from impulse shopping of their viewers.

It is anticipated that foot traffic in physical stores will decrease but view number to the online stores will increase; so, all in all, people's tendency to shopping is not going away, just switching from one mode to another mode.

To have all the benefits of gaining both online and physical shoppers, retailers are moving to omnichannel stores which gives their audience both options of sitting at home and putting online orders or coming to the store and physically experience the products/services.

New generation technologies both in the terms of payments (contactless payment system or mobile payments) and augmented reality applications are being used more and more each day. Contactless



payments have been in the market for some time and consumers are somehow adapted to them. On the other hand, AR and VR provide the opportunity of combining digital products/services in live environments and result in a smoother purchasing experience.

Last but not the least, is sustainability. Each day more consumers are being concerned about how the products/services they use impact/damage the world and environment. Furthermore, the use of ethical practices in each part of a process that a company takes to provide their product is a very important topic.

Having all these factors and not having skilled management and human resources will not result positively for a retailer. People with right knowledge and experience are needed to strategize, plan, provide and implement all the factors we mentioned above.

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