



**THE IMPACT OF COVID-19 ON PERFORMANCE OF  
TURKISH COMPANIES IN TOURISM SECTOR USING  
RATIO ANALYSIS**

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Master's Thesis

Graduate School  
Izmir University of Economics

İzmir  
2021

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# ABSTRACT

## THE IMPACT OF COVID-19 ON PERFORMANCE OF TURKISH COMPANIES IN TOURISM SECTOR USING RATIO ANALYSIS

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Master's Program in Business Administration

Thesis Advisor: Prof. Dr. Gülin Vardar

August, 2021

This thesis analyses how COVID-19 affects the financial ratios of companies operating in the hotel and restaurant sector of Turkey. Financial reports of eleven companies operating in hotel and restaurant sector are investigated by using ratio analysis. Moreover, these ratios are compared with industry averages of 2019, which reflects pre-pandemic performance of companies. The results show that all ratios of companies are found to be affected negatively by COVID-19 pandemic in general. However, profitability and turnover ratios of these companies are affected more than other ratios for hotel and restaurant sector.

Keywords: Financial Analysis, Ratio Analysis, Tourism, COVID-19, Industry Averages.

# ÖZET

## COVID-19'UN TURİZM SEKTÖRÜNDE HİZMET VEREN ŞİRKETLERİN PERFORMANSLARINA OLAN ETKİLERİNİN RASYO ANALİZİ İLE İNCELENMESİ

Başaran, Murat

İşletme Yüksek Lisans Programı

Tez Danışmanı: Prof. Dr. Gülin Vardar

Ağustos, 2021

Bu çalışmada, COVID-19 Pandemisinin otel ve restaurant sektöründe hizmet veren şirketlerin finansal rasyolarını nasıl etkilediği incelenmiştir. Otel ve restaurant sektöründe bulunan on bir şirketin finansal raporları, rasyo analizi ile incelenerek, pandemi öncesi şirket performanslarını yansıtan 2019 yılının sektör ortalamaları ile karşılaştırılmıştır. Bu çalışmanın sonucunda şirketlerin incelenen rasyolarının tamamının COVID-19 pandemisinin sonuçlarından genel olarak negatif şekilde etkilendiği, ancak karlılık ve devir oranlarının en fazla etkilenen rasyolar olduğu ortaya çıkarılmıştır.

Anahtar Kelimeler: Finansal Analiz, Rasyo Analizi, Turizm, COVID-19, Sektör ortalamaları.

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## LIST OF ABBREVIATIONS

AYCES	: Altin Yunus eşme Turistik Tesisler A.Ş.
AVTUR	: Avrasya Petrol Ve Turistik Tesisler Yatirimlar A.Ş.
ETILR	: Etiler Gıda Ve Ticari Yatirimlar Sanayi Ve Ticaret A.Ş.
KSTUR	: Kuştur Kuşadasi Turizm Endüstri A.Ş.
MAALT	: Marmaris Altinyunus Turistik Tesisler A.Ş.
MARTI	: Marti Otel İşletmeleri A.Ş.
MERIT	: Merit Turizm Yatirim Ve İşletme A.Ş.
PKENT	: Petrokent Turizm A.Ş.
TEKTU	: Tek-Art İnşaat Ticaret Turizm Sanayi Ve Yatirimlar A.Ş.
ULAS	:Ulaşlar Turizm Yatirimlari Ve Dayanikli Tüketim Mallari Ticaret Pazarlama A.Ş.
UTPYA	: Utopya Turizm İnşaat İşletmecilik Ticaret A.Ş.

# **CHAPTER 1: BACKGROUND OF THE STUDY**

## ***1.1 General Introduction***

New type of infectious disease, known as COVID-19, broke out at the beginning of 2020 in the Wuhan, one of the most populous cities in China. The local outbreak caused public health crisis and made other countries panicked and was eventually announced as COVID-19 pandemic on March 11, by World Health organization.

Later, first COVID-19 case was registered in Turkey on March 11, 2020. Then, additional measures were taken and frequencies of controls were increased to prevent spreading of pandemic in Turkey. The closure of schools across the country, banning of mass gathering, travel restrictions, flexible working hours in public sector as preventive measures against COVID-19 had been started to implement in March 2020. First curfew and lockdowns were implemented on April 10, 2020. These measures, excluding closure of schools, were ended in June 2020. Following the summer 2020, new measures such as distant learning, take-away service by restaurants, early closing time for malls and partial curfew to control spreading of COVID-19 were announced and implemented on 17 November 2020. Total number of death from COVID-19 was 13.746 in Turkey, while total number of death was 2.208.652 in the world in December 2020 (Wikipedia, 2020).

This pandemic made huge impacts on the economies around the world. The extent of its actual impacts depended on the industries whether they were indispensable for human daily life. Furthermore, it created a shock among people and caused income loss to many industries. Tourism industry was the one of the most affected industries because more than hundred countries have announced partial or full lockdown. Accordingly, international and local travel restrictions made tourism industry impaired, given its reliance on human mobility and preferences to sustain its existence. Specifically, this thesis investigates how COVID-19 affects performance of eleven companies operating in tourism sector in Turkey by using ratio analysis, and comparing with companies` pre-pandemic characteristic by using 2019 sectoral averages.

### ***1.1.1. Research Topic***

### ***1.1.2. Objectives, Thesis Questions and Hypothesis***

World economic growth rate in 2020 had been expected as 3% before the pandemic. In contrast, it was caused to a recession in the world economy after announcement of COVID-19 as pandemic. It had been reported as one of the most severe shrinking term of World economy by the economists. International Money Fund (IMF) estimated to be contraction of global economy up to 4.4 % which meant that this was unprecedented after Great Depression.

IMF expected that GDP of Turkey would decline to 5% in 2020. Besides, World Bank predicted Turkey economy to be shrinking by 3.8% as well as declining joining workforce and employment due to the COVID-19. However, Ministry of Treasury and Finance assessed that Turkish economy might have grown up to 0.3% in line with new economy program.

Tourism is quite vital for the developing countries such as Turkey to generate foreign exchange inflow and creation of new job opportunities. However, upon COVID-19 breaking out in China and announced as pandemic by World Health Organization (WHO), the situation and position of tourism has been changed literally in the world wherein all sectors motivate people to keep in touch with each other. However, new precautions, especially partial or fully lockdown, to take COVID-19 spread under control make tourism impaired because of its operations reliance on human mobility and interactions. The financial analysis of the companies in tourism industry during COVID-19 pandemic period is of crucial importance for the managers, investors, creditors, government and other stakeholders. Therefore, this thesis focuses on the performance of eleven companies operating in Turkish tourism industry over the COVID-19 pandemic period by using ratio analysis. Based on this aim, the primary hypotheses can be formulated as below:

H1: The COVID-19 had negative impact on liquidity ratios of companies served under hotel and restaurant sector.

H2: The COVID-19 had negative impact on financial position ratios of companies served under hotel and restaurant sector.

H3: The COVID-19 had negative impact on profitability ratios of companies served

under hotel and restaurant sector.

H4: The COVID-19 had negative impact on turnover ratios of companies served under hotel and restaurant sector.

The main contribution of the thesis to the literature is two-folds: Firstly, although the inverse relation between COVID-19 and tourism sector is predictable, to the best of our knowledge, this is one of the first studies that analyze the impact of COVID-19 on the tourism sector of Turkey by using ratio analysis. Even if there are some studies that investigate this in Turkey, most of them include only the companies traded in Borsa Istanbul. However, the samples of this thesis include all the companies who operate in tourism sector of Turkey. Moreover, in this thesis, the industry averages are used to interpret how much each company is affected by COVID-19. Company by company analysis allows the managers to provide specific policies to overcome the problems. Second, tourism industry is the one of the most important income generating item for the developed and developing countries. So, by analyzing the impact of COVID-19 on tourism industry of Turkey, as one of the developing countries and one of the most affected countries by this pandemic, the results will shed light on how this pandemic has affected the performance of an emerging country. Thus, this is the first serious attempt to analyze performance of tourism industry during COVID-19 pandemic.

This study aims to give an idea to managers, investors and shareholders about their decision to make process on financial management and investment preferences by filling this gap in the literature.

In terms of structure, this thesis includes six chapters. Accordingly, Chapter 1 is the introduction section of thesis and provides general views on COVID-19 and its effects and also presents research questions.

Chapter 2 gives general information about tourism industry and economic performance of tourism in Turkish economy.

Chapter 3 provides comprehensive literature review on tourism and economic relations in line with research questions.

Chapter 4 gives specific information about the methodology used in this thesis.

Chapter 5 outlines data sets used in this thesis and interpretations of these data by

industry averages.

Chapter 6 contains concluding results of this thesis, as well as limitations and policy implications for the managers, investors and interested parties.



## **CHAPTER 2: TOURISM INDUSTRY**

### ***2.1. Overview of The Tourism Industry***

Tourism is a kind of travel out of residence, which is aimed to spend time leisurely, making business and similar activities, no longer than one year in general, by people. Tourism, which continued to expansion ten consecutive years of sustained growth till 2020, is one of the world's major economic sectors. It is third largest export category following fuels and chemicals but ahead of automotive products and foods in 2019. In addition, it is accounted for 7% of global trade. For some countries, such as Jordan, Spain, Croatia and Mauritius, it can represent over 10% of their GDP. Tourism is one of the sectors which are most affected by the Covid-19 pandemic, resulting in huge impacts on economies, livelihoods, public services and opportunities all over the world. All parts of its vast value-chain have been affected. It is expected to be lost jobs of 100 to 120 million people and fall the number of tourist arrival from 850 million to 1.1 billion. Besides, export revenues of tourism may fall from \$910 billion to \$1.2 trillion in 2020. The impact of COVID-19 on tourism is much more than any other sectors and this may reduce global GDP by 1.5% to 2.8%. Tourism creates 1 in 10 jobs and provides livelihoods for many millions more in both developing and developed economies. In some Small Island Developing States (SIDS), (Least Developed Countries) LDCs and African Countries, tourism represents over 30% of exports for majority of SIDS while 80% for some others. (UNWTO edition, 2020)

Tourism is quite vital for the developing countries such as Turkey to generate foreign exchange inflow and creation of new job opportunities. However, upon COVID -19 breaking out in China and announced as pandemic by World Health Organization (WHO), the situation and position of tourism is about to change literally in the world wherein all sectors motivate people to keep in touch with each other and to journey around the world regardless of some precautions except fair price. However, new tourism concept, which aroused from COVID-19, seemed to change and redefined tourism priorities forever. People preferred to adapt new concept, which suggests to keep social distance, limited travel and contact and hygiene, called as `New Normal`, in order that they could save themselves from COVID-19. Turkey managed this risk perception via the support of Ministry of Health and Ministry of Culture and Tourism

by creating new and understandable motto such as `new normal and `Safe Tourism Certification Program`. This kind of information is quite important to conduct new risk perception on the tourism sector during and post-COVID-19 period owing to consumer ideas.

### **2.1.1. Economic Performance of Tourism Industry**

Tourism income skyrocketed and reached the highest level of last twenty years with 17% increase at income and 3% increase at per capita in 2019. However, tourism income sunked the bottom to the least level of last twenty years with the declining 65,1%, in spite of 14,5 increase at per capita expenditure. Foreign trade deficit of Turkey reached to 31.174 billion Dollars, as tourism revenue amounted to 30.1 billion Dollars which was equal to 96,6 of foreign trade deficit in 2019. Tourism employment consisted of 8,9 % of total private sector in August 2019, but this ratio decreased to 7,69 in the same period of 2020. In consequence, number of employment decreased from 1.252.332 to 1.133.762 (TURSAB, 2020). Contribution of travel and tourism to GDP in 2019 was equal to 11,3 % of total economy in Turkey (WTTC Report, 2020 ). To make a clear evaluation for the future of tourism sector in Turkey, in Table 1, statistical data from 2003 to 2020 were analyzed and shaded light on how tourism sector was affected by COVID-19 and moreover its reflection to companies' financial ratios are evaluated

Table 1 demonstrates yearly tourism income and average spending per capita and share of this income in GDP. It shows that the share of tourism income of 2019 in GDP is the highest rate as of 2003. But this income sharply decreases in 2020 whereas average spending per tourist increases due to the COVID-19 Restrictions.

Table 1: Tourism Income, Average Spending Depending on Yearly-Based, Share of Tourism Income in GDP (Source: Tourism Statistic, 2020, p.14)

Years	Tourism Income (1000 \$)	Average Spending (\$)	Share of Tourism Income in GDP %
2003	13.854.866,00	850	4,4
2004	17.076.607,00	843	4,2
2005	20.322.111,00	842	4,1
2006	18.593.951,00	803	3,4



Table 1 (cont'd)

2007	20.942.500,00	770	3,1
2008	25.415.067,00	820	3,3
2009	25.064.482,00	783	3,9
2010	24.930.997,00	755	3,2
2011	28.115.692,00	778	3,4
2012	29.007.003,00	795	3,3
2013	32.308.991,00	824	3,4
2014	34.305.903,00	828	3,7
2015	31.464.777,00	756	3,7
2016	22.107.440,00	705	2,6
2017	26.283.656,00	681	3,1
2018	29.512.926,00	647	3,8
2019	34.520.332,00	666	4,6
2020*	12.059.320,00	762	

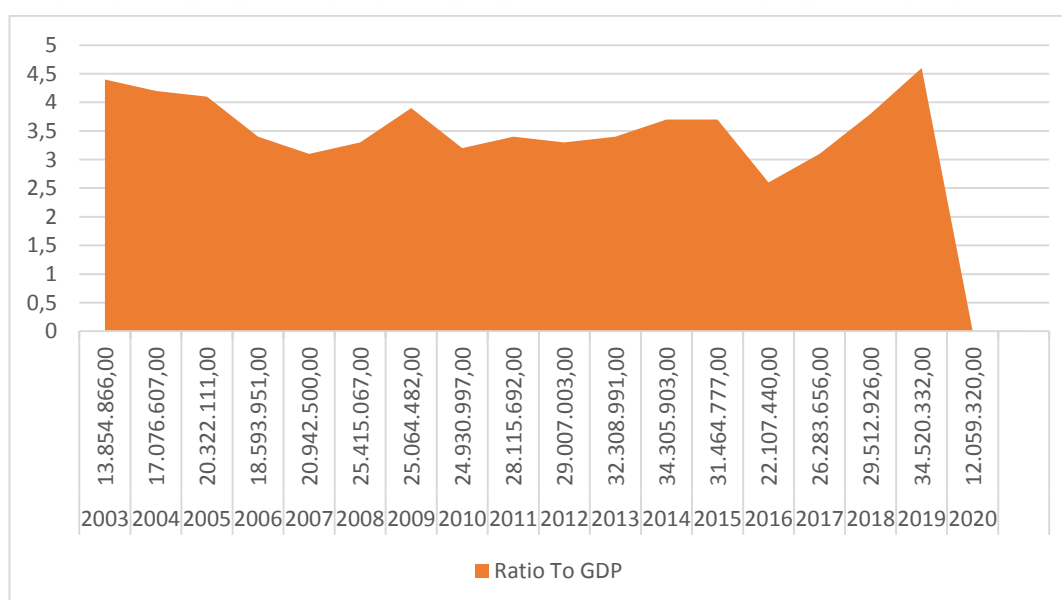


Figure 1: Tourism Revenue Ratio to GDP (Source: Tourism Statistic, 2020)

More specifically, figure 1 displays dispersion of tourism revenue to gross domestic product (GDP) over the period 2003-2020, showing that 2019 spiked out of last fifteen years in term of contribution to GDP. On the other hand, even if the

contribution of tourism income to GDP in 2020 has not been announced yet, it is clear that this ratio in 2020 would not seem to be high as in 2019.

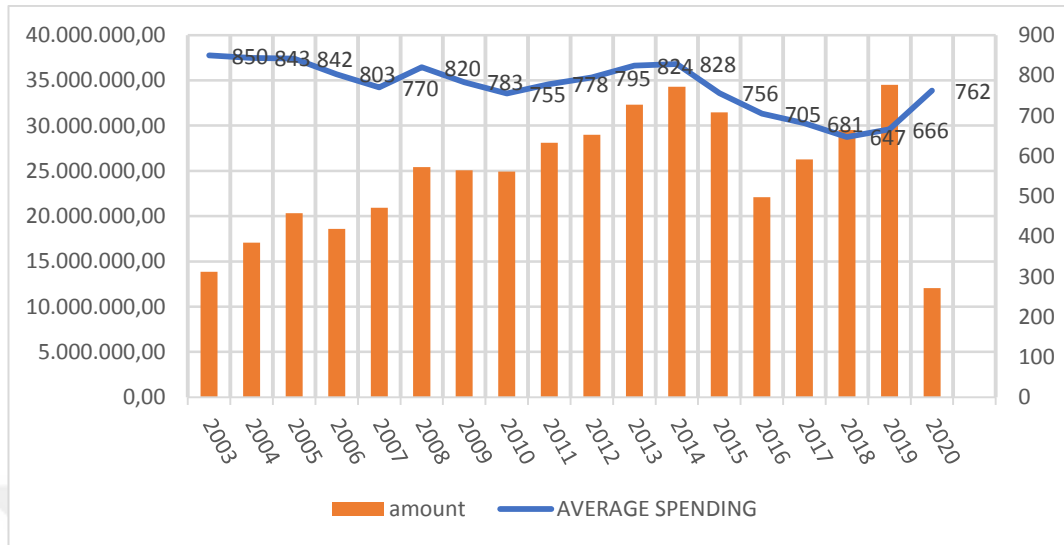


Figure 2 : Per Capita Expenditure and Tourism Revenue in 2020 (Source: Tourism Statistic, 2020)

Figure 2, which illustrates per capita expenditure and tourism revenue in 2020, displays that there is a big difference in the tourism revenue between 2019 and 2020. The difference of tourism revenue in 2020 is 65,1% below previous year. In spite of increase at the per capita expenditure in 2020, decline in the tourism income can be explained with an indication of changing traveler preferences on trip perception after COVID 19, such as staying a place more than expected to reduce contact with others. It is also clearly visible reflection of these choices at the tourism revenue of 2020 in figure 1 and number of visitors to Turkey at table during pandemic.

Turkey, which is located between Europe and Asia, is one of the most preferred tourist destination in the world due to its seasonality opportunity, cultural diversity, blue flag beaches, and accessibility from anywhere. Turkey is among the most preferred-ten countries in the world based on the records of Ministry of Culture and Tourism. Most noticeable features of Turkey are as shown below.

- a. Turkey was 4<sup>th</sup> place in term of number of Tourist visitor in Europe in 2019.
- b. Turkey was 6<sup>th</sup> place in term of number of Tourist visitor in The World in 2019.
- c. Turkey was 6<sup>th</sup> place in term of number of Tourism Income in Europe in 2019.

d. Turkey was 6<sup>th</sup> place in term of number of Tourism Income in The World in 2019.

However, the number of tourists to Turkey decreased to 69% in 2020 and therefore income loses were 65% compared to 2019, but per capita expenditure increased to 14,4 % from the previous year.

Table 2: Number of First Five Countries Visitors to Turkey by Nationalities (Source: Tourism Statistic, 2020)

NU	COUNTRIES	2020*	2020 SHARE %	2019	2019 SHARE %
1	RUSSIA	2.128.758	17	7.017.657	15,57
2	BULGARIA	1.242.961	10	2.713.464	6,02
3	GERMANY	1.118.932	9	5.027.472	11,16
4	UKRAINE	997.652	8	1.547.996	3,44
5	ENGLAND	820.709	6	2.562.064	5,69
6	OTHERS	6.425.201	50	26.189.633	58,12
	<b>TOTAL</b>	<b>12.734.213</b>	<b>100,00</b>	<b>45.058.286</b>	<b>100,00</b>

Table 2 displays the number of visitors and their shares of first five countries in tourism income. The order of first five countries' in term of number of visitors was the same with the previous year 2019 . However, 2020 was 66,5 % lower than 2019 as per number of visitors to Turkey whereas these five countries consisted of 49,5 % of tourism revenue in 2020 and 41,8 % of tourism revenue in 2019.

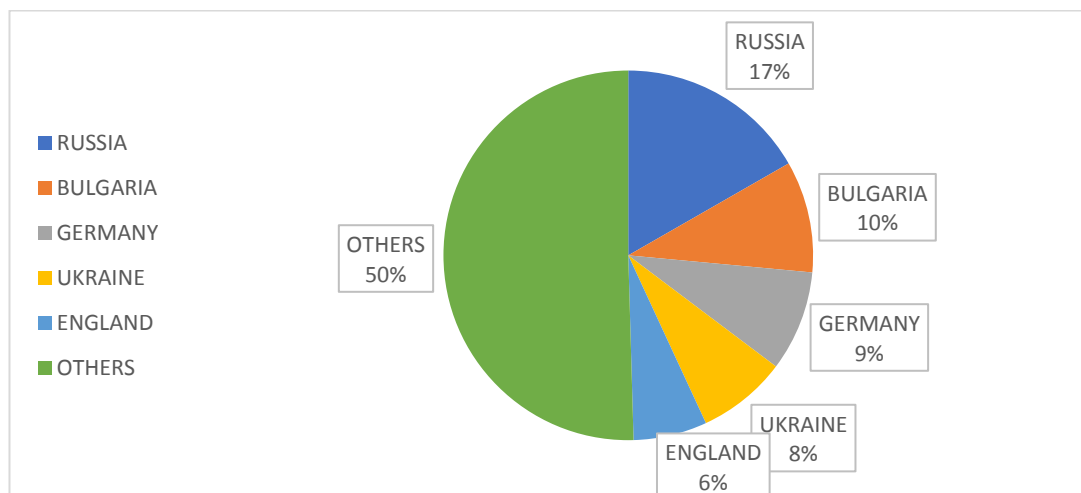


Figure 3. Rate Of Contribution Of First Five Countries To Turkey Tourism Industry (Source: Tourism Statistic,2020)

Table 2 presents that Russia is the country, which sent the most number of tourists to Turkey by its own as in 2019. However, there seems a huge number of difference between two years, around 4.9 million less tourist when compared to 2019, with a drop of 69% as shown at Table 2.

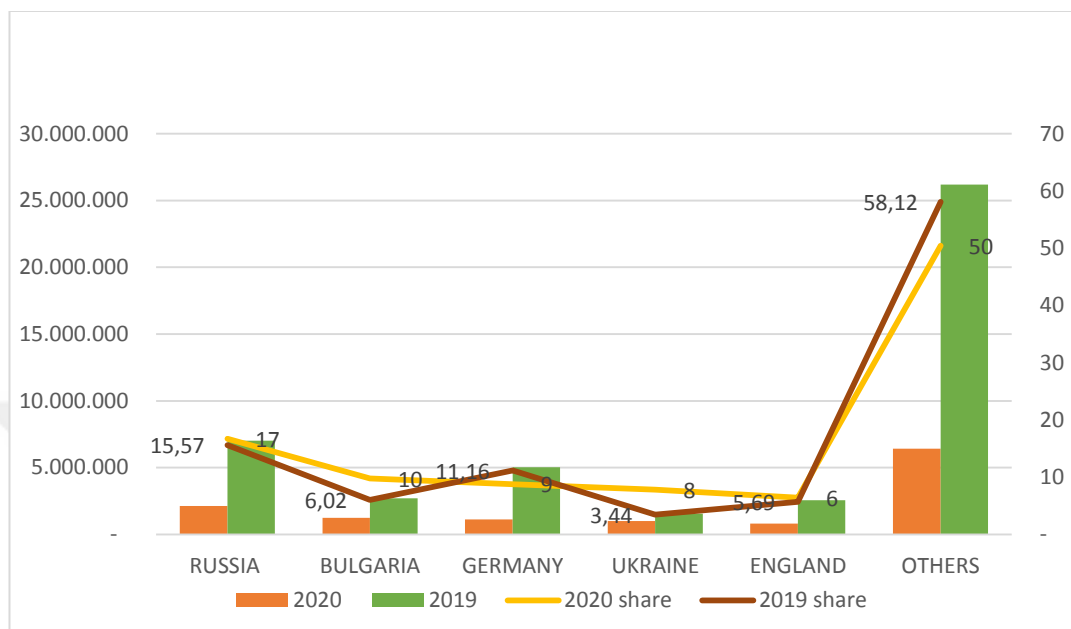


Figure 4: Dispersion Of First 5 Countries Visited To Turkey And Their Contribution Tourism Revenue Between 2019 And 2020 (Source: Tourism Statistic, 2020)

Figure 4 displays the dispersion of first 5 countries visited to Turkey and their shares in tourism sector in 2020. The red column might roughly give an idea about the difference between the number of visitors in 2019 and 2020. Figure 2 had already reflected number of tourist year by year.

Table 3: Dispersion Of Foreign Visitors To Turkey By Years And Months (Source: Tourism Statistic, 2020)

MONTHS	YEARS		% Difference
	2019	2020*	
			2020/2019
JANUARY	1.999.642	2.287.010	14,37
FEBRUARY	2.113.909	2.196.453	3,90
MARCH	2.746.159	968.537	-64,73
APRIL	3.809.819	24.238	-99,36
MAY	4.512.020	29.829	-99,34
JUNE	5.969.981	295.840	-95,04
JULY	7.413.887	1.381.804	-81,36

Table 3 (cont'd)

AUGUST	7.016.330	2.192.251	-68,76
SEPTEMBER	5.982.789	2.534.376	-57,64
OCTOBER	4.818.001	1.998.465	-58,52
NOVEMBER	2.693.151	1.064.298	-60,48
DECEMBER	2.671.511	990.896	-62,91
TOTAL	51.747.199	15.963.997	-69,15

Table 3 also shows that number of tourist arrival in Turkey sharply decreases in the second quarter of 2020 after first COVID-19 cases announced on March 11, 2020. Later on, tourism services is redefined in line with COVID-19 restrictions by ministry of culture and tourism as “ New Normal”. However, tourism sector could not be revived in spite of these incentive actions.

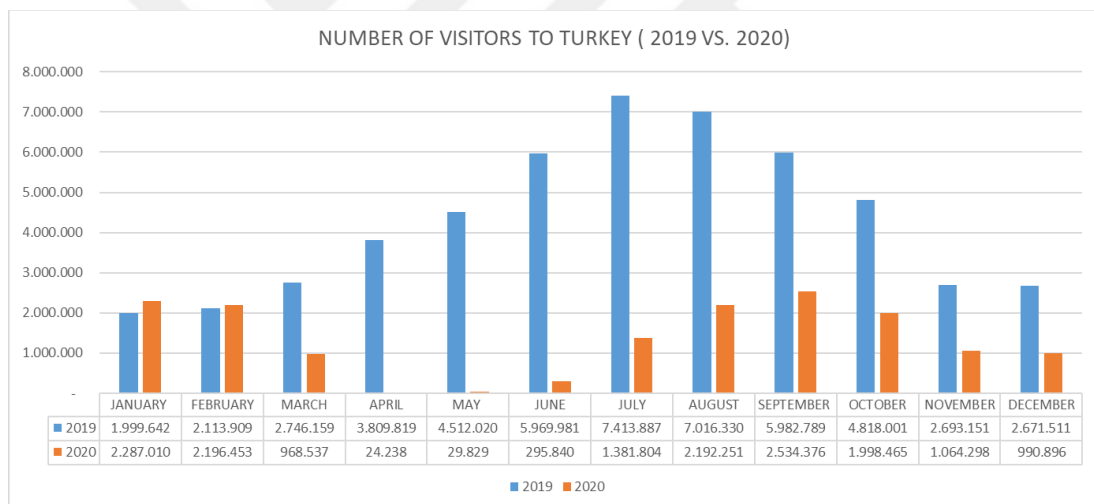


Figure 5: Comparison Of Numbers Of Visitor To Turkey From 2019 To 2020 (Source: Tourism Statistic, 2020)

Figure 5 clearly indicates that the number of tourist travelled to Turkey in April 2020, following announcement of COVID-19 as pandemic, was so trivial that it was less than 1% of 2019 by same period of previous year. It was quite comprehensible to see COVID-19 effects on tourism sector by the help of this table (TOURISM STATISTIC, 2020).

## **CHAPTER 3: LITERATURE REVIEW**

The recent epidemic outbreak, COVID-19, originated from Wuhan-China, has severely not only affected the human health globally but also it has a profound impact on the global economy all over the world from tourism to service sector, from manufacturing to international trade, from transportation to telecommunication industry. Even if almost every sector has been affected by this pandemic in one way or another, this pandemic shock may influence different parts of economics to varying degrees. Therefore, there is an increasing demand for the studies that analyze the impact of COVID-19 pandemic on the global and local economies, as well as on different sectors and companies.

Due to the increasing interest on this issue, this paper considers to provide a brief literature review in two streams, i) the impact of COVID-19 on economies, ii) the impact of COVID-19 on tourism industry.

### ***3.1. Impact of COVID 19 Pandemic on Economy***

Ozili and Arun (2020) analyzed how COVID-19, starting as a health crisis at the beginning of 2020, was transformed into an economic crisis in March 2020 by using real world observations such as restrictions, monetary policy measures, fiscal policy measures and public health measures and concluded that it was born as an economic crisis due to the spillover effect and strict economic precautions taken by the government to keep living standards of its citizens as good as before crisis. As the number of the COVID-19 cases increased in the world, the effectiveness of the measurements implemented by governments are to be questioned in that these measurements were conflicting with each other and put into practice without evaluating their results on the society and economy. Durani et al. (2020) examined the impacts of COVID-19 all over the world by making sectoral analysis and their results revealed that all sectors in the economies, from tourism to education, agriculture to energy, aviation to finance, were affected negatively all over the world. All the measurements taken by the government to prevent the spread of virus resulted in job loses up to 25 million and contraction to world economy to 3%. Many countries such as USA, Italy, Spain, Japan, Turkey suffered from economic recession in 2020. However, Eurozone output was anticipated to shrink this 10%.

In another study, Nicola et al., (2020) summarized the impact of COVID-19 on primary industry, secondary industry and tertiary industry. COVID-19 caused shortage of workforce, closedown of schools, declining need of production and commodity while increasing need for medical supplies and food sector due to the travel restriction, self-isolation and social distance. As a result of this study, it was understood that a large-scale socioeconomic plan, which was not only on sectoral basis but also an ecosystem, which supported entrepreneurship to build sustainable business model, must be developed and implemented in adjust for the nature of crises.

Cinel (2020) analyzed global economic cost of COVID-19, and discussed the measurements to be taken for the prevention of COVID-19 spread and the policies to be implemented. This study revealed that global recession caused by COVID-19 pandemic was inevitable but its longevity and depth could be changed with measurements taken and policies implemented by government. It was the worst case for the stock market since 1987 due to oil war.

Global recession was inevitable because it was very novel pandemic. However, the measurements taken and the policies implemented, such as alleviation of SME liquidity problems, supporting families who were financially stricken, sustainability of job opportunities and effectiveness policies would determine longevity and depth of COVID-19. The companies' response to crises and the length of lockdown were also some of the other factors, which determine the depth of crises. If COVID-19 could not be treated till the end of summer, it will be financially most dangerous situation for global economy in last 200 years. Regarding the impact of pandemic on economy as well as financial markets, Şenol and Zeren (2020) investigated the effect of COVID-19 outbreak on the global stock markets over the period January 21, 2020 and April 7, 2020. The global stock markets were represented by Morgan Stanley Capital International (MSCI), emerging market, European and G7 indices. Employing Fourier Cointegration Test, the empirical results of the study showed that a significant decline appeared in the stock markets worldwide after COVID-19 declaration as pandemic by WHO. The results also indicated that epidemic diseases generally affected stock markets negatively. Using newly developed Integral Massive Infection and Contagious Diseases Economic Simulator (IMICDE-Simulator), Estrade et al. (2020) investigated the effect of COVID-19 outbreak on

the Chinese economy. The results of comparative analysis revealed that COVID-19 had a significant negative impact on Chinese economy, of which GDP growth would decrease up to 0.45%, around threefold of SARS. Fernandes (2020) made a research by summarizing existing and reliable data on 30 countries by assuming that pandemic would be ended in May 2020 following 1.5 months shutdown and found out that this crisis affected all sectors differently due to economic structure of the countries. Therefore, economic contraction would be changing between 3.5% to 6 % depending on the structure of the countries' economy such as whether it was based on foreign trade or tourism. In this scenario, economic loss to Turkey was calculated as 4.6 % of GDP. Zeren and Hızarcı (2020) studied the correlation between COVID-19 daily total death and daily total case with stock market by using cointegration test with multiple breaks (MAKI) in China, South Korea, Italy, France, Germany and Spain, where the frequency of COVID-19 cases was the highest. They found the existence of cointegration between daily total death and stock markets of all countries in the sample analyzed except France, Germany and Italy. Sansa (2020) analyzed whether there was a relationship between the increase of COVID-19 cases and financial markets (Shanghai Stock Exchange and New York Dow Jones) over the period March 1, 2020 -March 25, 2020 in China and USA. The findings revealed that COVID-19 had a remarkable impact on financial markets in China and USA. Del Rio-Chanona et al. (2020) made a research on the quantitative predictions of the supply and demand shocks for US economy associated with COVID 19 at the level of individual occupation and industry. These shocks might cause to lose 23 % of GDP, threaten 20% of jobs and decrease wage income up to 16%. High wage jobs were more durable to adverse supply and demand shocks while low wage occupations were more vulnerable. Transportation and its related sectors were subject to be output constrained by demand shock, whereas manufacturing, mining and their related sectors were inclined to be constrained by supply shock. However, entertainment, restaurant and tourism sectors had to face profoundly supply and demand shocks alike. Walmsley, Rose, and Wei (2021) prepared three scenarios ranging from moderate to intensive -given that time, condition, severity of pandemic- and analyzed macroeconomic impacts of COVID-19 in USA, China and the rest of the world by employing computable general equilibrium (CGE) model, and state-of-art economy-wide modeling. They considered that Casual factor affecting impacts of COVID-19 caused to decline in the workforce due to morbidity and mortality,



avoidance behavior and decreased demand in public transportation and leisure activities, whereas increased the demand in the healthcare service, communication and pent-up demand. The empirical results of the study showed that net USA GDP loses would span from \$ 3.2 trillion (14.8%) to \$ 4.8 trillion (23%) in a 2-year period for these three scenarios. The percentage impact of COVID-19 in the USA economy was found higher than in China and the rest of the world. The primary factor affecting in all these three scenarios was mandatory closures and partial re-opening, which resulted in 22.3% to 60.6% decrease in USA GDP in all scenarios whilst pent-up demand, created from incapable of consumer during was found as the second most important factor. Bakar and Rosbi (2020) evaluated COVID-19 economic impact on tourism industry for affected countries in the worldwide by using supply-demand theory. Their results showed that there was a downward trend on tourism demand, due to panic arisen from pandemic. It was a sign for government to prevent this trend.

Kara (2020) studied on the precautions taken globally by governments to mitigate detrimental effects of COVID-19. Seven precautions on employment incentive were taken including support for self-employed, unemployment benefits, wage subsidies, new working scheme, sick leave compensation, cap on layoff, increased labor training subsidies. Turkey implemented three out of these seven precautions, which were wage subsidies, sick leave compensation, and cap on layoff. The results of this study showed that whole and retail trade, production, real estate, administrative and support service activities, accommodation and food service were the most affected sectors from COVID-19 pandemic. The employees in these sectors had faced with some problems such as termination of contracts, leave without payment, decreasing number of working hours. Škare, Soriano, and Porada-Rochoń (2021) investigated the impact of COVID-19 on tourism industry in 185 countries by using panel structure vector autoregression model during the period 1995-2019. The results of the study provide important policy implications for policy makers and management in the hotel industry such as designing adaptable plans to crises. Therefore, in this study, same information from previous pandemic from 1980 onwards such as SARS and H1N1, which significantly influenced worldwide tourism, had been examined and adjusted with COVID-19 parameter. As a result, a three-step plan was to be developed: i. high, economic losses risk, ii. health protective measurements, iii.

subsidy for people who lost their income. In a study by Demirbilek et al. (2020) it was stated that all the developments regarding COVID-19 were monitored and updates of all applications were implemented and announced quickly. Pandemic Coordination Boards and Operation Center had been created and met on the countrywide and smaller scale to adapt Pandemic Influenza National Preparedness plan to COVID -19 in line with recent developments. Pandemic Influenza National Preparedness plan was updated version of National Pandemic Plan, which was published 2006 in line with the experience obtained from 2009 influenza A pandemic. This plan had been updated with the preventive actions against COVID-19 pandemic. The most important action taken nation-wide were: scientific committee, 24/7 basis teams to detect and taking under control of spread velocity, “COVID-19 Risk Assessment”, “COVID-19 Guideline” and “Case Report Form, regulations for Personnel protective equipment and brochures distribution. In addition, flight restriction, 14 days isolation, school, public and entertainment services suspension, weekend curfew had been implemented.

Çetin, and Balcı, (2020) analyzed the impact of COVID-19 on employment in Turkey and recommended measures to be taken by governments and their results showed that, in general, companies could not survive after rigid precautions taken by the governments and in particular, not sustain their operations and activities due to insufficient digitalization investment and infrastructure. As a result, crisis management units created by government were to be in charge for developing, operating and coordinating the measurements to prevent COVID-19 spread. In addition, action plans including social and economic measurements was to be created so as to find solution to problems, especially unemployment, arising from COVID-19. Soylu (2020) examined the changes on the macroeconomic indicators in Turkish Economy during COVID-19. The results showed that “V-shaped” growth in Turkish economy was projected in line with implementation of expansionary monetary and fiscal policy. Kandil, Eren, and Karaca (2020) analyzed the impact of COVID-19 on the Borsa Istanbul sector index return by examining the data of 26 sectors serving in the BIST over the period January 2, 2019-April 09, 2020 with event study and they found out that most of the sectors, especially tourism, sports and textile had negative cumulative abnormal returns (CAR) because of neither vaccine nor permanent treatment developed yet. Therefore, the uncertainty about future caused to

unpredictable cash flows for many sectors, especially luxury consumption. Thus, investors specifically preferred food, chemistry, and banking sector having positive CAR in that these sectors served to basic consumption to tourism, sports and textile. Levent (2020) examined the impact of COVID-19 on stock return and volatility of Borsa Istanbul Food and Beverage index (XGIDA) between January 10, 2020 and May 29, 2020 period. XGIDA index showed better performance than other indices in terms of trend analysis while all the indices had serious decrease in the early period of pandemic. Furthermore, the results portfolio analysis was in line with the indices.

Orhan and Tırman, (2020) examined COVID-19 impact on the fifteen sectors in BIST 100 index by using correlation and risk-return scheme during the period of March 11, 2020 and April 11, 2020. The results indicated that risks of all sectors at the first period of COVID-19 (averagely 0.205%) increased significantly, upon comparing the same period of 2019 (averagely 0.042%) and 2018 (averagely 0.021%). Another important point in this study was to be stated that most profitable sector of this period was health and pharmaceutical industry and the least profitable one was clothing and textile.

### ***3.2. Impact of COVID 19 Pandemic on Tourism Industry***

Sharma and Nicolau (2020) evaluated the effects of COVID-19 on the travel and tourism industry considering major subsectors within the travel industry – airlines, hotels, cruise lines, and rental cars by using the threshold autoregressive conditional heteroscedasticity in line with The General Dow Jones Industrial Average, market index of choice in the analysis, from September 2018 to April 2020. Result of this study showed these sector and subsectors had experience significant fall in valuation. Additionally, (Wen et al., 2020) studied on the effects of the COVID-19 pandemic on Chinese citizens' lifestyle and travel by synthesizing news broadcasted by media outlets to be supported related literature on tourism marketing, tourism management, tourist behavior. Results showed that there was a growing trend of free and independent travel, luxury tourism, health and wellness tourism. Bayat (2020) investigated tourist expectation for 2020 by using a semi-structured interview technique with the hotel managers in Marmaris. Results showed that reservations had been cancelled by COVID-19 bans or postponement of hotel operators. Mariolis, Rodousakis, and Soklis (2020) estimated the COVID-19 multiplier effects of tourism

on gross domestic product (GDP), total employment, and trade balance of the Greek economy by using a multisectoral model and data from the Supply and Use Tables. The results showed that decrease of international travel visit range from 3.5 to 10 billion euros would lead to decrease in GDP from 2% to 6% as well as decrease in level of employment

Fotiadis, Polyzos, and Huan (2021) forecasted international tourist demand during COVID-19 under the three different scenarios. By employing Long and Short-Term Memory neural network and the Generalized Additive Model on five training set to estimate tourist arrival for the next year, their results showed that COVID -19 would cause the tourism industry to decrease up to 50% and this loss would be lasting for the next summer and would retrograde as long as 15 years. Tourist arrivals, at the worst-case scenario, would be decreasing from 60% to 80% as WTO forecast for 2020.

Zheng, Luo, and Ritchie (2021) studied to understand whether tourism industry could heal itself following the pandemic period and therefore, they conducted on a survey of 1208 participants in China. Their results revealed that the pandemic created "travel fear" on the people, who perceived threat and severity of pandemic and this fear may not be terminated after end of pandemic.

As can be seen from the above literature, there is a vast amount of research about the COVID-19 and tourism industry by looking at the issue from different perspectives all over the world. Considering the crucial impact of tourism industry in Turkish economy, it is inevitable to analyze the impacts of COVID-19 pandemic on Turkish tourism sector. There are a few studies that investigate how epidemic pandemic affects the tourism sector in Turkey.

Türker (2020) analyzed the impact of COVID-19 on the tourism sector by using Open-end survey with faculty members, who teach in tourism. This survey was consisted of 5 points including i. possible impacts of pandemic on tourist preferences, ii. COVID-19 effects on Turkey tourism, iii. consumer expectation after COVID-19, iv. course of action on new tourism strategies, v. management of COVID-19 action plan by tourism establishment. The results of this study indicated that participants of survey thought that there would be decreasing tourism demand in the world and Turkey, transition from mass tourism inclination to individual tourism,

more hygienic and safety environment expectation from tourism establishment, certified hotel preference against COVID-19 risk.

Demir, Günaydin, and Demir (2020) analyzed the antecedent effects and consequences of COVID-19 by using interview technique with the managers on tourism industry in Turkey and concluded that businesses served in tourism industry had to be shutted down and thus, this caused to stop commercial activities and made people unemployed. Gunduz and Hatemi (2005) investigated the interaction between tourism and economic growth via leverage bootstrap causality test over the period 1965-2002 in Turkey. Their results showed that the contribution of tourism to economic growth in Turkey was found to be positive.

Cihangir, Erkan, and Harbalioglu (2014) analyzed the correlation between tourism income and trade deficit in Turkey by employing Granger causality and impulse response functions between the period 1984-2013. They found that tourism had vital importance during the crisis period and thus, had positive impact on financing trade deficit. Using different econometric techniques, Ertugrul and Mangir (2015) investigated the existence of a relationship between tourism and economic growth from first quarter of 1998 to third quarters of 2011 in Turkey. The empirical results of the study supported that tourism made positive impact on Turkish economic growth. Moreover, outward-orientated policies aimed to increase level of tourism and realization of full convertibility of Turkish Lira and allowing buying and transfer foreign currency had been supported. Dogru and Bulut (2018) stated that tourism was quite important for both developed and developing countries in that its positive contribution to economy and socioeconomic benefits. Thus, they investigated whether tourism could support the economic development in the countries such as Turkey where the contribution of the tourism to the economic growth was higher. Employing panel causality test to test the causal relationship between economic growth and tourism development over the period 1996-2014. The results showed that there was bidirectional causality between growth in tourism receipts and economic growth. It revealed that economic growth and tourism development were significantly interrelated and they might serve as supplementary.

Uğur and Akbıyık (2020) aimed to analyze travellers' responses during COVID-19 via text mining technique between December 20, 2019 and March 15, 2020. Around

a hundred thousand comments, of which 75% retrieved from Tripadvisor forum and the rest obtained from US, Europe and Asia forums, were scrutinized with this technique. The results revealed that global crises easily affected tourism industry due to its sensitive nature. The second important point for tourists was the travel insurance, by which they could refund their money from travel agency. This issue might seem to be popularized after this pandemic.

TURSAB (Association of Turkish Travel Agency) had commissioned a survey to Genar Research Center, aiming to analyze the inclination about travel expectation during Pandemic period. The foremost topics of survey regarding economy was to define as below.

- Reservation cancellation for the groups older than 55 was 55% higher than other groups, who planned vacations before COVID-19.
- The vacation trend, which was 30% in May, dropped to 20% in June. After pandemic, called also as new normal, the rate of travel with private vehicles has increased to 48%.
- Fair price offered by the travel agencies had become the most preferred reason by the traveler with 30.7 % rate (Aydın Raporu,2020).

As discussed in the above literature, even if a large amount of literature examines the impact of COVID-19 on tourism industry in Turkey, there seems a gap in the literature about the impact of COVID-19 on the financial performance of tourism companies, which operate in Turkey. Moreover, this thesis aims to analyze whether there exists any differences in the financial performance of these tourism companies before and after COVID-19 by employing ratio analysis method.

## **CHAPTER 4: METHODOLOGY**

Horrigan (1968) stated that financial statements had been popularized in the last half of nineteenth century when USA reached industrial maturity. As management was transferred from entrepreneur to financial manager and as financial manager dominated the economy, financial statement gain importance with the development of financial ratio analysis for creditors and managerial purposes. However, credit analyst scrutinized ability to pay whereas manager focused on profitability. Current asset comparison with the current liability had been started at last few years of 1890 and other ratios were developed in 1890`s. Current ratio the most significant one could be said to had initiated ratio analysis in 1919, The Du Pont company initiated to use "Triangle" to evaluate operation results. Return on investment (profit/total assets), profit margin(profit/sales) and capital turnover ratio(sale/total assets) were the top of the triangle. This step shedded light on logical framework of ratio analysis

### ***4.1. Financial Statements Analysis***

Financial analysis is the process of using financial data to assess a company`s performance and determine how it can go forward. Generally, financial analyst uses this data to determine whether the company is stable, profitable, solvent, and liquid to sustain its operations. This analysis can be done internally to help managers for future decision or externally to help investor to choose the best option for investment. Specifically, the management, investors, stockholders, creditors and also the government use these financial statement analysis for their own purposes. There are direct and indirect pre-conditions needed to be considered before implementing financial analysis. Economic environment, operating sector and structural and managerial features of business affect indirectly the companies` sustainability. Accounting system is direct condition which is so important to make comparisons between the financial statements of the same company by terms or among the companies by using uniform accounting plan. By using benchmarking and cross sectional analysis, the companies can evaluate their financial performance in terms of liquidity, profitability, credibility, and efficiency. Also, industry ratios published by Central Bank of Turkey are another important benchmarking analysis in order to evalue whether the companies are better or worse than the companies in the same industry. In this thesis, ratio analysis method is used to evaluate the performace of tourism companies.

## ***4.2. Types of Financial Analysis***

In the literature, there are four main financial analyses methods used by the companies.

1. Horizontal analysis
2. Vertical analysis
3. Trend analysis
4. Ratio analysis

### ***4.2.1. Horizontal analysis***

It is an approach used by companies to compare their performance in two different time period or terms so as to determine direction of change as percentage and amount. It is aimed to find out the direction of changes by interpreting in amount and percentage. Analyst use this approach to determine whether a company will grow or not, and predict the financial trends of a company.

### ***4.2.2. Vertical analysis***

It is aimed to analyze various components of income statement and divide them by revenue so as to express as a percentage. It enables analyst to compare the companies which have different sizes and by evaluating their margins rather than gains.

### ***4.2.3. Trend analysis***

It allows manager to predict the future of companies while comparing current financial statements of companies with their past periods. Data from specific period is compared with all previous available data at least 5 years. Trend analysis can be used in two ways, either revenue and cost analysis or investment analysis. Revenue and cost analysis is used to create a trend line for multiple reporting periods and examine the trends and inconsistencies. Investment analysis is used to create a trend line for historical prices and use this prices to predict the future stock prices.

### ***4.2.4. Ratio analysis***

It is used to evaluate liquidity, solvency, profitability and financial position of the companies. There are a number of participants who use the financial ratio analysis, including the managers, stockholders, investors, analysts, creditors and the government. In the recent years, due to the globalization and liberalization of capital movements, foreign investors are considered as another group who cares about the financial performance of the companies. These ratios are more useful for analysts, investors, and creditors who are out of the company than the management who



already access to more detail information about the organization. While evaluating the performance of the companies through ratio analysis, there are three types:

- a) Time series analysis
- b) Cross-sectional analysis
- c) Combined analysis

a) Time series analysis: Time series analysis allows to evaluate the company's own performance over time. The comparison of the company's current performance, using ratios, to past performance helps the managements as well as the analysts to interpret the company's progress and trends over time. If there seems a significant changes from the previous years, then it may be a symptom of a problem.

b) Cross sectional analysis: This analysis allows to compare different companies' financial ratios at the same point in time. A company may compare its performance through different ratios with those of a key competitor, a group of competitors that would like to emulate. This type of cross-sectional ratio analysis is called as "benchmarking.

Another type of cross-sectional ratio analysis is the comparison with the "industry average value". Industry average value for each ratio is calculated as getting the average of this ratio of each company operating in this industry. Therefore, it allows to evaluate whether the company is performing well or worse than the industry average. Moreover, if the deviation is too high than the industry average, it is crucial to analyze why a company's performance differs from that of its industry peers.

c) Combined Analysis: It combines both cross-sectional and time series analysis and therefore, provides an informative information about the company's financial performance.

In this thesis, since the aim is to analyze the impact of COVID-19 on the tourism companies, combined analysis, involving both cross-sectional analysis based on the comparison with the industry averages and time series analysis, will be employed. Tourism industry average ratios, which are announced by Central Bank of Turkey, are used and based on assumption that each ratio has three points called as, from weak to strong, median lower, median and median upper. These three points divide value into four equal part. If the value is higher than median, it shows the strength of

ratio towards upper quartile. On the other hand, if its value is lower than median, it shows the weakness of ratio towards lower quartile. The figure below shows how the ratios are to be interpreted to median.

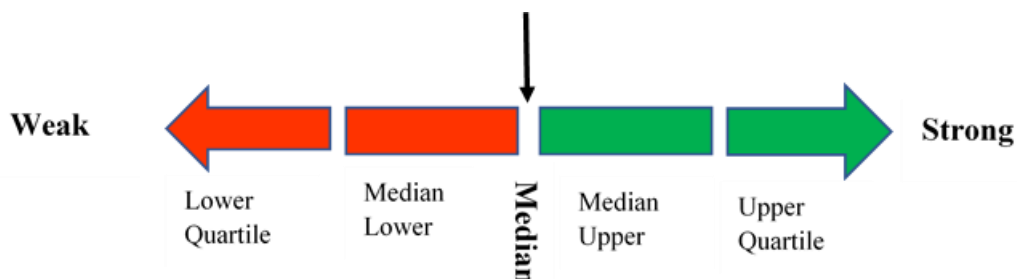


Figure 6: Financial Ratios Benchmark

### 4.3. Financial Ratios

There are a number of ratios used to investigate the financial performance of the companies by the managers, investors, analysts, and stockholders and creditors as well. Financial ratios fall into five general categories, which are based on the specific performance of the companies to evaluate. These key categories used for financial analysis are listed below:

1. Liquidity ratios
2. Turnover / Efficiency Ratios
3. Profitability Ratios
4. Financial Ratios
5. Market Ratios

**4.3.1. Liquidity ratios:** Liquidity ratios are used to determine if a company is capable of meeting its short term debt obligations. Higher liquidity ratio means that company is more able to pay its short term liabilities whereas low liquidity ratio means that company has a trouble with meeting short term liabilities and may not find loans to finance long term operations because of losing credibility.

**4.3.1.1. Current Ratio:** It is used to measure ability of a company to meet its short term obligations within one year. Current ratio is expected to be in line with industry average or little higher. However, good current ratio is generally accepted between 1.5 and 2 even if the optimum current ratio may differ with respect to the different industries. If the current ratio is below 1, it means that company may have trouble to meet its short term liabilities and have to finance its operation with loans.

The formula is as follows

Current Ratio = Current Asset / Current Liabilities

**4.3.1.2. Quick (acid-test) ratio:** The quick (acid-test) ratio, which is so similar to current ratio, is used to measure the ability of a company to pay short term liabilities with its liquid assets but excluding inventory. Inventory is considered as the least liquid current asset in the balance sheet. The low liquidity of the inventory comes from two crucial reasons. The first one is that many types of inventory cannot be sold easily compared to other asset because they may not be the completed items. The inventory includes raw materials, semi-finished products and also finished products. The second reason is that since the firms generally sell inventory on credit, therefore, before being converted into cash, the inventory is recorded firstly as account receivable.

The formula is as follows:

Quick Ratio:=(Current Asset – Inventory) / Current Liabilities

Good quick ratio is equal to 1. If the quick ratio is less than 1, it means that company may not fully pay its short term liabilities within the short term. Even if both current ratio and quick ratio provide information about the liquidity performance of the company, the quick ratio level, as well as the current ratio, depends upon largely the nature of the industry in which it operates. The quick ratio may be a better indicator of an overall liquidity performance of a firm when a company's inventory cannot be easily converted into cash. However, if the inventory is so liquid, the current ratio is preferred measure of overall liquidity.

**4.3.1.3. Cash ratio:** It is used to measure the ability of a company to pay its short term liabilities, if receivables are not collected from debtors, with cash and cash equivalent. Good cash ratio is generally accepted as 0.2.

The formula is as follows:

Cash Ratio=Cash and Cash Equivalent / Current Liabilities

**4.3.2. Turnover / Efficiency Ratios:** Turnover ratios measure the speed within which various assets can be converted into sales or cash . A number of turnover /efficiency ratios measure the activity of the most important accounts including inventory, accounts receivable, and net working capital. Moreover, these are used to evaluate the efficiency of a company in managing its assets as well. These ratios can be compared with competitors in the same industry to evaluate whether the company is better managed relative to other.

**4.3.2.1. Inventory Turnover Ratio:** It shows that how fast a company sells its inventory and replaces in a specific period. In other words, it measures the activity, or liquidity of a company's inventory. A higher turnover ratio may mean strong sale or insufficient inventory. On the other hand, the value of the inventory turnover ratio representing good management depends on the nature of the business.

The formula is as follows:

Inventory Turnover Ratio= Cost of Goods Sold / Average Inventory

**4.3.2.2. Receivables Turnover Ratio:** It measures how efficiently a company can collect its receivables. A higher receivables turnover ratio means that company is capable of collecting its receivable from debtors efficiently and has customer who are financially viable. On the other hand, the value of receivable turnover ratio in terms of good management through receivable collection performance depends upon again the nature of the business.

The formula is as follows:

Receivables Turnover Ratio= Net Credit Sales / Average Trade Receivables

**4.3.2.3. Working Capital Turnover Ratio:** It measures how efficient a company can use its working capital to keep up sales and growth. A higher ratio indicates that company is quite efficient to use its short term assets and liabilities to support sales whereas low ratio indicates that company is investing too much in account receivables and inventory, which could cause dead stock and excessive amount of debt to company. A company should also be so careful about the too high increases in the working capital turnover ratio because it needs to raise more capital to support future growth.

The formula is as follows:

Working Capital Turnover Ratio= Net Sales / Current Assets

**4.3.2.4. Net Working Capital Turnover:** It is used to measure short term liquidity of a company and so to get an impression if a company utilize assets in efficient manner. High ratio means that company is capable of paying current obligation and invest in its future operation. Conversely, a lower ratio means that company may have some troubles to meet its short term obligations and may need to borrow money to sustain its solvency.

The formula is as follows:

Net Working Capital Turnover=Net Sales/(Current Assets-Current Liabilities)

**4.3.2.5. Total Assets Turnover:** It is used to measure how efficient a company uses their assets to generate sales. The higher a company's total asset turnover ratio, the more efficient the company is at turning its assets to sales. This ratio is also probably of greatest interest to management since it represents whether the company's operations are efficient.

The formula is as follows:

Total Assets Turnover= Net Sales / Average Total Assets

**4.3.3. Profitability Ratios:** Profitability ratios are used to measure how efficient a company is able to generate profit from its sales and operations. A higher ratio means that a company is so efficient to turn their sales into profit. However, it is better to compare its own performance with other companies in the same industry as well as keep tracking historical company's own performance. Managers, owners, creditors and stockholders give much more emphasis to boost profits due to having greatest importance on market performance of the firm.

**4.3.3.1. Return on Assets (ROA):** It is used to measure how a company makes profit from its operations in relation with total assets. A Higher ratio means that managers are doing well to generate profit from company's assets. This is one of the profitable ratios that are sometimes called as "Return on Investment (ROI)". It measures the overall effectiveness of management in generating profit with its total assets.

The formula is as follows:

Return on Assets= Net Sales / Total Assets

**4.3.3.2. Return on Equity (ROE):** The return on equity is one of the profitability ratios, and is similar to ROA. It measures the return earned on the common stockholders' investment in the firm. Generally, the level depends on the nature of the business in which it operates. For example: utility sector is equal or above 10% while technology or retail firm which have smaller balance sheet is equal to 18% or more.

The formula is as follows:

Return on Equity= Net Sales / Shareholders' equity

**4.3.3.3. Operating Margin:** It is used to measure how much profit a company can earn on sales after paying cost of goods sold and operating expenses except tax and interest expenses. A higher ratio is favorable and means that company is good at turning sales into operating profit. This ratio is also called as "pure profit". Like the other profitability ratios, the higher the operating profit margin, the better it is.

The formula is as follows:

Operating Margin= Operating Income / Net Sales

**4.3.3.4. Gross Profit:** It is used to measure how efficient a company can generate profit after the firm has paid only cost of goods sold. The higher the gross profit margin, the better it is.

The formula is as follows:

Gross Profit= (Net Sales-COGS) / Net Sales

**4.3.3.5. Net Profit Margin:** It is used to measure the percentage of sales dollar remaining after the firm has paid all costs and expenses as well as preferred stock dividends. In general, the higher the net profit margin, the better it is. The higher net profit margin is considered as positive light for the company by the analysts and managers. This ratio is considered as a measure of the firm's success with respect to earnings on sales. Of course, the "higher" level of net profit margin differs across industries. A higher net profit margin is generally seen at the industries that have low sales such as high-end luxury products while lower net profit margin is preferred by the retail and transportation companies which have high turnover and make up overall high profit in spite of low profit margin.

The formula is as follows:

Net Profit Margin: Net Income / Net Sales

**4.3.3.6. Interest Coverage Ratio:** It is used to measure how effective a company is able to pay interest on outstanding debts. This ratio is also called as "*times interest earned ratio*". It gives a sight to the creditors, managers as well as analysts about the ability of a company to make contractual interest payment obligations on time. Lenders and investor use this ratio to decide about company's riskiness and credibility performance by its current liabilities or future loans. Even if a higher ratio is better, the level of the value differs considerably across industries.

The formula is as follows:

Interest Coverage Ratio=Earning Before Interest and Taxes(EBIT) / Interest Exp.

**4.3.3.7. Earning Per Share(EPS):** It is used to measure how much money a company earns for each stock. It is an important ratio for the present or potential stockholders as well as management. The higher the EPS ratio, the more profitable company is evaluated to be.

The formula is as follows:

$$\text{EPS} = (\text{Net Income} - \text{Preferred Dividends}) / \text{Number of Shares Outstanding}$$

**4.3.4. Financial / Leverage Ratios :** Financial/Leverage ratios are used to measure how much capital of a company is financed by loans and ability of company to pay its financial obligations. The most commonly used leverage ratios are below:

**4.3.4.1. Debt Ratio:** It is used to measure how much of assets have been financed by debt. The company should be very careful about the level of this ratio. A higher ratio indicates that the company uses much more debt to finance its assets and operations. Therefore, the firm may have some interest payments problems if it cannot manage its operations. However, the lower the debt ratio, the higher ability of a company to pay its obligation. However, its acceptable level is equal or below 0.5.

The formula is as follows:

$$\text{Debt Ratio} = \text{Total Liabilities} / \text{Total Assets}$$

**4.3.4.2. Equity Ratio:**

It used to measure how much equity is used to finance its assets. In order to determine how efficient a company manages its debts and finances its asset investments, equity ratio uses both investments in assets and the equity. A higher ratio means that a company uses minimum debt to fund its assets requirement.

The formula is as follows:

$$\text{Equity ratio} = \text{Total Equity} / \text{Total Assets}$$

**4.3.4.3. Debt to equity ratio :** It is used to measure the degree to which a company is financing its operations through debt or equity. Specifically, it evaluates a company's financial leverage. The level depends upon the nature of the business in which it operates.

The formula is as follows:

$$\text{Debt to Equity Ratio} = \text{Total Liabilities} / \text{Shareholder's Equity}$$

**4.3.4.4. Shareholders Equity / Total Loans:** It shows the proportion of loans which can be financed by shareholder equity funds. The higher ratio means that a company finances its operation with its own assets rather than loans.

The formula is as follows:

$$\text{Equity Ratio to Loan} = \text{Shareholder's Equity} / \text{Total Liabilities}$$

**4.3.4.5. Debt service coverage ratio:** It is used to measure amount of money on hand to pay current debts. The acceptable level is equal 2.

The formula is as follows:

Debt Service Coverage Ratio = Operating Income / Total Debt Service

**4.3.5. Market Ratios:** Market ratios are used to measure share price of company's stock so as to decide whether this company is worth to invest in or not. These ratios give information how investors believe in the firm's performance in terms of risk and return. They provide insights about both backward-looking and forward-looking perspectives. The most commonly market ratios are "Price-Earnings-Ratio", and "Market-to-Book Ratio". The former emphasizes earnings whereas the latter focuses on book value. Additionally, "Dividend Yield" is another ratio used by the managements, and analysts.

**4.3.5.1. Market/Book (M/B) ratio:** It is used to measure how investors view the company's performance by comparing the market price to the book value of common stock. Market value shows how much investors are willing to pay for the stock and book value is shown on the balance sheet. The expected value should be greater than 1 and often much greater than that. This means that investors would like to pay for more the stock than its historical book value.

The formula is as follows:

Market/Book Ratios: Market Price per Share / Book Value per Share

*Book Value Per Share (BVPS)*

$(BVPS) = (\text{Shareholder Equity} - \text{Preferred Stock}) / \text{Average Share Outstanding}$ .

**4.3.5.2. Price to Earning (P/E)Ratio:** It is used to measure market share price to earning per share. It measures the amount that investors are willing to pay for each dollar of a firm's earnings. A higher ratio indicates that investors believe that the firms' future performance will be better. Therefore, they are willing to invest more.

The formula is as follows:

$P/E = \text{Market Value Per Share} / \text{Earning Per Share}$

**4.3.5.3. Dividend Yield:** It is used to measure what percentage of the market price of a share a company will pay to its stockholders in terms of dividends.

The formula is as follows.:

$\text{Dividend Yield} = \text{Annual Dividend Per Share} / \text{Price Per Share}$



## **CHAPTER 5: DATA COLLECTION AND DATA ANALYSIS**

The data used in this thesis are the financial statements of eleven companies operating in the Restaurants and Hotel Sector in Borsa Istanbul. The audited data of eleven companies from 2020, obtained from Public Disclosure Platform, are examined quarterly and compared with industry averages of 2019, obtained from Central Bank of Turkey, to observe deviation from industry averages.

In order to make a comparative analysis, main financial statements, namely, balance sheets, income statements, statement of cash flow, and statement of stockholders' equity are employed.

In this study, eleven companies operating under Restaurants And Hotels from Public Disclosure Platform had been examined for 2020 and compared with 2019 industry ratios. These companies are listed by name as; Altın Yunus Çeşme Turistik Tesisler A.Ş., Avrasya Petrol Ve Turistik, Tesisler Yatırımlar A.Ş., Etiler Gıda Ve Ticari Yatırımlar Sanayi Ve Ticaret A.Ş., Kuştur Kuşadası Turizm Endüstri A.Ş., Marmaris Altinyunus Turistik Tesisler A.Ş., Martı Otel İşletmeleri A.Ş., Merit Turizm Yatırım Ve İşletme A.Ş., Petrokent Turizm A.Ş., Tek-Art İnşaat Ticaret Turizm Sanayi Ve Yatırımlar A.Ş., Ulaşlar Turizm Yatırımları Ve Dayanıklı Tüketim Malları Ticaret Pazarlama A.Ş., Utopya Turizm İnşaat İşletmecilik Ticaret A.Ş.

Ratio analysis is applied to financial statements of these companies to evaluate ratios so as to compare these ratios with industry averages. Seventeen specific ratios out of liquidity, profitability, financial position and turnover ratios are determined. These are current ratio, quick ratio, cash ratio from liquidity ratios; inventory turnover, receivables turnover, working capital turnover, net working capital turnover and total assets turnover from turnover ratios; return on equity, operating margin, gross profit, net profit margin, return on assets, interest coverage ratio from profitability ratios; debt ratio, equity ratio and debt to equity ratio from leverages ratios. These ratios are calculated with the help of financial statements and interpreted.

In this study, it is examined how Restaurants and Hotels sector is affected by COVID-19 in Turkey in 2020. First of all, liquidity, profitability, leverage and turnover ratios are evaluated and tabulated in quarterly to make a proper interpretation about the sector. Later, these data obtained from 2020 is compared with industry averages of 2019 and interpreted in line with that data.

Table 4 represents the financial size of companies in tourism industry by assets and

liabilities. Because it can proportionally determine costs and expenses that companies in same industry have to afford monthly depending on their size.

Table 4: Summary Balance Sheets of Companies Included This Study (Source: KAP Reports, 2020)

Balance Sheet Items	ALTINYUNUS	AVRASYA PETROL	ETILER GIDA	KUSTUR	MARMARI S.A.Y.	MARTI	MERIT TUR	PETROKENT	TEKART	ULASLAR	UTOPYA
<b>ASSETS</b>											
Cash and cash equivalents	1.190.493	184.851	36.714.088	17.560.840	114.029.980	826.996	39.809	1.258.695	1.660.080	9.339.699	1.761.553
Trade Receivables	219.548	1.789.802	336.373	38.884	100.032	15.837.288	907.341	16.900.852	27.434.926		790.752
Inventories	186.500	0	32.095	1.807.423	5.602	3.145.522		1.371.889	190.295		
Total current assets	2.469.267	12.187.151	37.507.427	20.562.316	118.087.746	144.418.390	14.313.823	23.561.218	116.826.944	10.936.670	319.176.294
Total non-current assets	270.890.910	94.140.043	3.796.724	29.194.785	57.562.764	1.374.611.103	35.956.108	39.496.912	1.194.918.286	24.576.456	87.336.594
Total assets	273.360.177	106.327.194	41.304.151	49.757.101	175.650.510	1.519.029.493	50.269.931	63.058.130	1.311.745.230	35.513.126	406.512.888
<b>LIABILITIES</b>											
Trade Payables	3.808.562	417.877	244.542	338.463	533.557	26.408.523	20.909	2.542.274	6.817.162	2.727	1.256.975
Total current liabilities	11.660.904	2.023.313	2.727.269	1.779.436	7.092.946	1.356.039.534	1.610.464	19.203.063	120.571.751	1.682.599	349.262.058
Total non-current liabilities	47.829.417	9.222.936	968.656	577.619	63.735.139	106.995.918	1.728.856	5.490.443	347.022.363	2.724.283	4.920.901
Total liabilities	59.490.321	11.246.249	3.695.925	2.357.055	70.828.085	1.463.035.452	3.339.320	24.693.506	467.594.114	4.406.882	354.182.959
Total equity	213.869.856	95.080.945	37.608.226	47.400.046	104.822.425	55.994.041	46.930.611	38.364.624	844.151.116	31.106.244	52.329.929
Total Liabilities and Equity	273.360.177	106.327.194	41.304.151	49.757.101	175.650.510	1.519.029.493	50.269.931	63.058.130	1.311.745.230	35.513.126	406.512.888

## 5.1. Empirical Results, Analysis and Discussion

This chapter deals with the financial analysis of the selected ratios for the companies in the tourism industry in Turkey over the COVID-19 pandemic period. It starts with the main data used in the analysis and then continues with the analysis of the financial ratios of the sample companies.

### 5.1.1. Liquidity Ratios

Liquidity ratios present key information to stakeholders whether their companies are able to pay short term liabilities. In this study, key liquidity ratios, chosen in line with industry in question, are used to measure companies ability to pay short term legal obligations by using financial reports of 2020 and compared with sectoral averages of 2019. Table 5 is reflected performance of companies in comparison with sectoral averages of 2019.

Table 5: Comparison of Liquidity Ratios Of Companies in Hotel And Restaurant Sector in 2020 With 2019 Quartiles (Source: KAP Reports, 2020)

Q, the arithmetic mean of the individual ratios		FINANCIAL RATIOS AND QUANTILES (*)																						
		2019				ALTYNYUNUS			AVRASYA PETROL			ETİLER GIDA			MARMARIS ALTYUNUS			MARTI OTELLERİ						
		Q	Q1	Q2	Q3	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q			
<b>A- LIQUIDITY RATIOS</b>																								
1-Current Ratio (%)	1,102	0,325	0,785	1,354	0,56	0,34	0,51	0,21	2,88	2,92	2,78	6,02	0,11	0,15	4,38	13,75	12,27	13,18	0,10	16,65	0,11	0,11	0,87	0,11
2-Quick (Acid-Test) Ratio (%)	0,540	0,041	0,213	0,746	0,53	0,31	0,49	0,20	2,86	2,91	2,77	6,02	0,11	0,15	4,36	13,74	12,27	13,18	0,09	16,65	0,11	0,10	0,83	0,10
3-Cash Ratio (%)	0,210	0,011	0,055	0,237	0,26	0,04	0,28	0,10	0,01	0,00	0,01	0,09	0,01	0,01	4,10	13,46	12,22	13,11	0,00	16,08	0,00	0,00	0,13	0,00
<b>B- LIQUIDITY RATIOS</b>																								
<b>1- Accommodation and food service activities</b>																								
<b>PETROKENT</b>																								
2020																								
<b>TEKART INS</b>																								
2020																								
<b>ULAŞLAR TUR</b>																								
2020																								
<b>UTOPYA TUR</b>																								
2020																								
<b>KUŞTUR TUR</b>																								
2020																								
<b>MERİTTUR</b>																								
2020																								
1-Current Ratio (%)	1,102	0,325	0,785	1,354	1,00	0,94	0,58	1,23	0,64	0,65	6,82	0,97	6,11	7,01	6,82	6,50	1,03	0,99	0,95	0,91	2,87	11,56	12,92	8,89
2-Quick (Acid-Test) Ratio (%)	0,540	0,041	0,213	0,746	0,98	0,90	0,56	1,16	0,64	0,65	6,82	0,97	6,11	7,01	6,82	6,50	1,03	0,99	0,95	0,91	2,66	10,54	3,65	8,89
3-Cash Ratio (%)	0,210	0,011	0,055	0,237	0,15	0,11	0,01	0,07	0,00	0,00	5,81	0,01	5,32	5,94	5,81	5,55	0,01	0,01	0,01	0,01	2,55	9,87	0,00	0,02

NOTE: 1<sup>ST</sup> Q :First quarter of company  
2<sup>ND</sup> Q :Second quarter of company  
3<sup>RD</sup> Q :Third quarter of company  
4<sup>TH</sup> Q :Fourth quarter of company

Q1>RATIOS  
Q1>RATIOS<Q2  
Q2>RATIOS<Q3  
Q3<RATIOS

Table 5 illustrates how liquidity ratios are affected from COVID-19 quarterly by comparison with sectoral averages of 2019. It clearly shows that selected liquidity ratios are affected by this pandemic especially at the first two quarters of the year more than last two quarters. All of these three ratios are examined for each company and interpreted with respect to each other and industry averages.

**5.1.1.1. Current Ratio:** It measures the ability of companies to pay short-term liabilities within a year. Current ratios of eleven companies in tourism sector were compared with the quartiles of 2019 in Table 5. The results showed that nine of eleven companies in the sample, excluding AYCES (0,21) and MARTI (0,11), had greater value than median (0,785). AYCES (0, 21) and MARTI (0, 11) had the values which were quite below the median (0,785). In other words, these two companies might neither afford their short-term liabilities, nor find credit due to low current ratios. On the other hand, three companies, PKENT(1,23), TEKTU(0,97), and UTPYA(0,91), had values just slightly above median and below the upper quartile. These three companies might be said to have better current ratios and be capable of meeting their short term liabilities when compared with quartiles of 2019. Furthermore, six out of eleven companies, AVTUR, ETILR, MAALT, ULAS, KSTUR, MERIT, had values that are quite above the upper quartile (1,354) meaning that they have strong current ratios when compared with quartiles of 2019. However, these higher ratios than median might also mean that these companies cannot use their assets efficiently. In other words, these higher ratios might mean that these companies prefer to keep their cash and equivalent on hand rather than making an investment as a precaution to COVID-19 uncertainty.

**5.1.1.2. Quick (Acid-Test) Ratio:** It measures the ability of companies to pay their short-term liabilities without selling inventory or using any other financial aid. Quick ratios of eleven companies in tourism sector are compared with the quartiles of 2019 in Table 5. The empirical results show that nine of eleven companies operating in the tourism sector, excluding AYCES (0,20) and MARTI (0,10), have greater value than median (0,213). This shows that that AYCES (0, 20) has values slightly below the median whereas MARTI (0, 10) has values quite below the median (0,213). However, both of them are still under the median. This means that they might neither afford their short term liabilities, nor find credit due to low quick ratios. On the other hand, nine out of eleven companies, AVTUR, ETILR, MAALT, ULAS, UTPYA,

PKENT, TEKTU, KSTUR, and MERIT have values that are quite above the upper quartile (0,746). This may be explained by the fact that these companies have better quick ratio when compared with quartiles of 2019. However, it is important to keep in mind that these companies may hold a large amount of money at account receivable, resulting a strong quick ratio. On the other hand, if companies cannot collect their receivable from debtors or if due date is longer than usual on term on sale, short term liabilities may not be paid on time. Therefore, the manager of each of these companies should follow this ratio carefully.

**5.1.1.3. Cash Ratio:** It measures the ability of a company to pay short term liabilities with cash and cash equivalent. Table 5 shows the cash ratios of eleven companies operating in the tourism sector are compared again with the quartiles of 2019. The results exhibit that seven of eleven companies, excluding MARTI (0,001), TEKTU (0, 01), UTPYA (0, 01), MERIT (0, 02), have greater value than median (0,055). MARTI (0,001), TEKTU (0, 01), UTPYA (0, 01), and MERIT (0, 02) have the values which are quite below the median (0,055). In other words, these four companies might neither afford their short-term liabilities, nor find credit due to low cash ratios. They may have some problems in paying their short-term liabilities as they come due. On the other hand, other three companies AYCES (0, 10), AVTUR (0, 09), PKENT (0, 07) present values above median and below the upper quartile. These three mentioned companies might be said to have healthy cash ratios and be capable of paying their short-term liabilities on time compared with quartiles of 2019. Furthermore, four out of eleven companies, ETILR, MAALT, ULAS, and KSTUR had values that quite above the upper quartile (0,237). This supports the view that these companies have stronger cash ratio. This may be interpreted as these companies project financial insecurities and accumulate protective capital cushion against crisis such as COVID-19.

Overall, the liquidity performances of the companies in general fluctuate due to the pandemic conditions. One hand, companies are observed to struggle to take this fluctuation under control and be prepared unforeseen end date of pandemic. On the other hand, they, having higher ratios values than median, seem to have preferred to keep their cash on hand rather than using bank loans.

### ***5.1.2. Ratios of Financial Position***

Table 6 illustrates how leverage ratios are affected from COVID-19 quarterly by comparison with sectoral averages of 2019. It clearly shows that the most affected ratios is debt ratio by this pandemic in Restaurants and Hotels Sector. All of these three ratios are examined and interpreted by companies and sectoral averages.





#### **5.1.2.1. Total Loans / Total Assets (Leverage Ratio- Debt Ratio):**

It measures the proportion of the assets financed by debt rather than equity. Creditors generally prefer the companies which have ratios less than 50% rather than more than 50% since higher debt ratio cause the companies to take greater risk. In contrast to other ratios, First quartile indicates the most effective rate in that proportional relationship inversely occurs between ratio and median. Table 6 presents the leverage ratios of eleven companies in the tourism sector, which are compared with the quartiles of 2019. The empirical results show that nine of eleven companies in the sample, excluding MARTI (0,096), UTPYA (0, 87), have smaller value than median (0,607). MARTI (0,096), and UTPYA (0, 87) have the values which are above the median (0,607). These two companies are mainly being financed by creditors rather than owner`s equity and additional loan might not be provided to these companies since they take greater risk than the others. On the other hand, the other nine companies AYCES, AVTUR, ETILR, MAALT, PKENT, TEKUTU, ULAS, KSTUR, and MERIT present values that are below the median (0,607). This means that these companies` leverage ratio is not so high and they have good credit ratings due to the inverse relation between ratios and median.

Overall, these companies, having values lower than median, seem to have preferred not to take risk to sustain operations while others take more risk to do so.

#### **5.1.2.2. Shareholders` Equity / Total Assets:**

This ratio measures the proportion of the total assets that are financed by the owners/stockholders of the company as opposed to the creditors. A higher ratio means that a company uses minimum debt to fund its assets requirement. It is also a good indicator of how stable the company is in the long run. The higher the ratio, the stronger financial structure of companies to meet their long-term liabilities and find credit opportunities even if equity capital has some drawbacks such as being more expensive and requiring some dilution of ownership and giving voting rights to new shareholders, compared to debt capital. The ratios of eleven companies in the tourism sector are compared with the quartiles of 2019, represented at Table 6. The findings indicate that nine of eleven companies, excluding UTPYA (0,13) and MARTI (0,04), present greater values than median (0,393). However, the ratios of UTPYA (0, 13) and MARTI (0, 04) are quite below the median (0,393). In other words, these two



companies use more debt to finance their assets. Therefore, they may have some problems in order to find long term credit due to low equity ratios or high debt ratios. On the other hand, nine out of eleven companies, AYCES, AVTUR, ETILR, MAALT, ULAS, PKENT, TEKUTU, KSTUR, and MERIT, which have values that quite above the upper quartile (0,737) are financially stable in the long run and take lower degree of risk, when compared with quartiles of 2019. However, it may be because of the fact that companies could not be able to benefit from long term credit opportunities or could prefer to be cautious against recession due to the COVID-19.

Overall, these companies, having values higher than median, seem to have preferred not to take advantage of long term credit opportunities, while the others prefer to take this advantages in spite of risk arising from pandemic conditions.

#### ***5.1.2.3. Shareholders Equity / Total Loans:***

It shows the proportion of loans which can be financed by shareholder equity funds. As shown in Table 6. The findings that ten of eleven companies in the tourism sector, excluding MARTI (0,04), have greater values than the median (0,089) at the end of the year. Only MARTI (0,04) has the value which is quite below the median (0,089). In other words, if this company may not find long term credit due to low ratio, it has no financial power to sustain its existence. On the other hand, ten companies, namely, AYCES, AVTUR, UTPYA, ETILR, MAALT, ULAS, PKENT, TEKUTU, KSTUR, and MERIT had values that are quite above the upper quartile (0,564), implying that these companies show better performance when compared with quartiles of 2019. However, it may mean that companies may prefer to be cautious against recession due to the COVID-19.

Overall, with respect to leverage ratios, the companies in the tourism sector seem to have preferred to use their own assets to loans due to the unforeseen results of COVID-19 pandemic.

#### ***5.1.3. Turnover Ratios***

Table 7 illustrates the selected turnover ratios of eleven companies in the tourism sector over the period and also allows us to show how turnover ratios are affected from COVID-19 quarterly by comparison with industry averages of 2019. All the results indicate that the most affected ratio during the pandemic period is the inventory turnover ratio. This may be because of the fact that tourism industry is one

of the most affected sector in the world and its activities reliance on human mobility and actions. Therefore, tourism actions come to standstill due to the lockdown and restriction. So,hotels and restaurant in tourism sector seem to have preferred minimum inventory to prevent dead stock. As a conclusion, All of these five ratios mentioned above in the turnover category are analyzed and interpreted with respect to industry averages.



Table 7: Comparison of Turnover Ratios of Companies in Hotel And Restaurant Sector in 2020 With 2019 Quartiles (Source: KAP Reports, 2020)

I-Accommodation and food service activities FINANCIAL RATIOS AND QUARTILES (*)		2019				2020																	
		Q, the arithmetic mean of the individual ratios				ALTIYUNUS			AVRASYA PETROL			ETILER GIDA			MARMARIS ALTIYUNUS			MARTI OTELLERI					
		Q	Q1	Q2	Q3	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q	1 <sup>ST</sup> Q	2 <sup>ND</sup> Q	3 <sup>RD</sup> Q	4 <sup>TH</sup> Q		
C- TURNOVER RATIOS																							
1-Inventory Turnover (Times)	0,074	0,028	0,073	0,118	10,35	-4,39	-18,74	-52,67	-16,21	-18,97	0,00	-16,21	-146,16	-10,47	-3,82	-4,95	-11,68	-93,87	-6,89	-24,04	-0,83	8,99	-2,07
2- Receivables Turnover (Times)	0,072	0,019	0,060	0,123	1,58	1,40	1,33	0,35	1,46	1,23	1,20	1,46	1,44	0,83	0,94	1,01	1,17	0,34	1,40	1,22	1,04	1,17	1,37
3- Working Capital Turnover (Times)	0,055	0,011	0,046	0,094	0,47	0,13	2,04	8,91	0,07	0,11	0,00	0,07	0,26	0,55	0,34	0,03	0,06	0,01	0,01	0,33	0,02	-0,53	0,09
4-Net Working Capital Turnover	-0,019	-0,069	-0,016	0,010	-0,61	-0,07	-2,15	-2,39	0,12	0,17	0,00	0,12	0,31	-0,07	-0,06	0,03	0,07	0,01	0,01	-0,04	-0,00	-12,10	-0,01
5-Total Assets Turnover (Times)	0,029	0,006	0,025	0,047	0,01	0,00	0,05	0,08	0,01	0,01	0,00	0,01	0,03	0,05	0,03	0,03	0,09	0,02	0,01	0,03	0,00	-0,29	0,01
PETROKENT																							
2020																							
1-Inventory Turnover (Times)	0,074	0,028	0,073	0,118	-3,64	-4,61	-6,97	-25,46	-2,28	-1,24	0,00	-50,81	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-1,85	-5,41	0,00
2- Receivables Turnover (Times)	0,072	0,019	0,060	0,123	1,49	1,39	1,13	0,94	1,13	0,90	1,13	1,44	1,44	0,00	0,00	0,00	0,00	1,27	0,19	1,07	0,43	0,79	1,08
3- Working Capital Turnover (Times)	0,055	0,011	0,046	0,094	0,03	0,00	0,16	1,50	0,01	0,01	0,01	0,18	0,18	0,00	0,00	0,00	0,00	0,00	0,01	0,07	0,00	0,20	0,15
4-Net Working Capital Turnover	-0,019	-0,069	-0,016	0,010	22,60	-0,03	-0,21	8,08	-0,02	-0,02	0,00	-5,38	0,00	0,00	0,00	0,00	0,00	0,18	-0,35	-1,25	0,00	0,22	0,38
5- Total Assets Turnover (Times)	0,029	0,006	0,025	0,047	0,02	0,00	0,01	0,56	0,00	0,00	0,00	0,016	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,07	0,00	0,08	0,10
KUSLUAR TUR																							
2020																							
1-Inventory Turnover (Times)	0,074	0,028	0,073	0,118	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2- Receivables Turnover (Times)	0,072	0,019	0,060	0,123	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3- Working Capital Turnover (Times)	0,055	0,011	0,046	0,094	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4-Net Working Capital Turnover	-0,019	-0,069	-0,016	0,010	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
5- Total Assets Turnover (Times)	0,029	0,006	0,025	0,047	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
MERTUR																							
2020																							
1-Inventory Turnover (Times)	0,074	0,028	0,073	0,118	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2- Receivables Turnover (Times)	0,072	0,019	0,060	0,123	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3- Working Capital Turnover (Times)	0,055	0,011	0,046	0,094	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4-Net Working Capital Turnover	-0,019	-0,069	-0,016	0,010	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
5- Total Assets Turnover (Times)	0,029	0,006	0,025	0,047	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

NOTE: 1<sup>ST</sup> Q :First quarter of company  
2<sup>ND</sup> Q :Second quarter of company  
3<sup>RD</sup> Q :Third quarter of company  
4<sup>TH</sup> Q :Fourth quarter of company

Q1>RATIOS  
Q1>RATIOS<Q2  
Q2>RATIOS<Q3  
Q3>RATIOS

**5.1.3.1. Inventory Turnover:** It shows that how fast companies can turnover their inventories in a specific period. A lower ratio implies weak sales and maybe excessive inventory whereas a higher ratio means strong sales or insufficient inventory. As shown in Table 7, the results of inventory turnover ratio indicate that all of eleven companies have higher ratios than median (0,073). However, these ratios might not be due to strong sales but insufficient inventory in that tourism industry is one of sectors which are affected more by COVID-19.

**5.1.3.2. Receivables Turnover:** It measures how efficient a company can collect its receivables. The higher ratio means that collection of receivables will be quicker. The receivable turnover ratios of each company operating in tourism and restaurant sector are presented in Table 7 and support that ten of eleven companies in the sample, excluding ULAS (0, 00), show greater values than median (0,060). However, ULAS (0, 00) having trade receivable with `zero` value might collect all the receivables from debtors or its sales significantly slumped due to the COVID-19. On the other hand, other ten companies, AYCES, AVTUR, UTPYA, ETILR, MAALT, MARTI, PKENT, TEKTU, KSTUR, and MERIT, have greater values than median (0,060). It may be explained by the fact that almost all the companies in the tourism industry could manage their receivables collection efficiently or operate on cash basis.

**5.1.3.3. Working Capital Turnover:** It measures how efficient a company uses their working capital to keep up sales and growth. As presented in Table 7, nine of eleven companies in the tourism industry, excluding ULAS (0,00) and MAALT (0, 04), create greater values than median (0,046). On the other hand, the ratio of ULAS is equal to zero due to the net sale whereas MAALT ratio (0,04) was slightly below the median (0,046). This lower ratio generally may arise from high inventory level and account receivable that cannot be collected but COVID impact is also needed to be taking into consideration in this study. On the other hand, nine of the eleven companies, AYCES, AVTUR, UTPYA, ETILR, MARTI, PKENT, TEKTU, KSTUR, and MERIT, have greater values than median (0,046). These high ratios, except AYCES (8,91) which had extremely high value, may be explained by the fact that these companies can use their short-term asset and liabilities efficiently to keep up their sales and growth. However, extremely high value of AYCES may indicate that this company may not have enough capital to support growth and solvency.

**5.1.3.4. Net Working Capital Turnover:** It shows whether companies can cover their

short-term liabilities. Regarding the results of net working capital turnover ratios of eleven companies, seven of eleven companies, excluding AYCES (-2, 39), TEKUTU (-5, 58), UTPYA (-1, 58), exhibit greater values than median (-0,016). These companies may not make their payment when they come due because of the lower ratios than median. On the other hand, other eight companies, AVTUR, ETILR, MAALT, ULAS, PKENT, KSTUR, MARTI, and MERIT show better performance with a greater value than median (-0,016). These higher ratios mean that companies can meet their financial obligations on time.

**5.1.3.5. Total Assets Turnover:** It shows how efficient a company can use their assets efficiently to generate revenue. Based on total asset turnover ratio of eleven companies in the industry, eight of eleven companies, excluding MARTI (0,01), ULAS (0,00), TEKUTU (0,02), create greater value than median (0,025). However, MARTI (0, 01), ULAS (0,00) and TEKUTU (0, 02) have the values which are below the median (0,025). Total asset turnover ratios, which are lower than the median, support the view that these three companies could not use their assets so efficiently to generate revenue. On the other hand, other eight companies, AYCES, AVTUR, UTPYA, ETILR, MAALT, PKENT, KSTUR, and MERIT, exhibit greater values than median (0,025). These higher ratios above median mean that these companies could use their assets to generate revenue more than MARTI, ULAS and TEKUTU.

When all the turnover ratio performance of eleven companies in Hotel and restaurant are analyzed, it can be mentioned that companies seem to have preferred not keep inventory on hand to prevent dead stock. This action causes possible and current sales to slump due to unforeseen result of COVID-19 pandemic.

#### **5.1.4. Profitability Ratios**

Table 8 illustrates how profitability ratios are affected from COVID-19 quarterly by comparison with industry averages of 2019. It clearly shows that the all of the profitability ratios are negatively affected by this pandemic in Restaurants and Hotels Sector for whole year. All of these six ratios are examined and interpreted by companies and sectoral averages.



**5.1.4.1. Net Profit / Shareholders Equity:** Table 8 represents the results of net profit/shareholders' equity ratios for each company in the tourism industry in Turkey. Specifically, seven of eleven companies, excluding ETILR (0, 23), MAALT (0,16), MARTI (0, 20), and ULAS (0, 19 ) exhibit lower value than median ( 0,093). In other words, these four companies, having higher values than median may be much more profitable than the other seven companies, AYCES, AVTUR, PKENT, TEKTU, UTPYA, KSTUR, MERIT, which had smaller values than median (0,093).

**5.1.4.2. Operating Profit / Net Sales (Operating Profit Margin):** It shows the percentage of each sales dollar remaining after the company has paid only cost of goods sold and operating expenses rather than taxes, and interest expenses. As presented in Table 8, the operating profit / net sales ratios of eleven companies in the sample are compared with the quartiles of 2019. According to the results, six of eleven companies AYCES (-0, 35), PKENT (-0,13), MAALT (0,11), TEKTU (-0,85), ULAS (0,00), KSTUR (-1,50) have values below the median whereas AVTUR (0,22), ETILR (0,49), MARTI (0,13), UTPYA (0,14), MERIT (0,73) have greater value than median (0,017). These lower values indicate that these companies might have problem with resource management, marketing as well as pricing policy. It will be better if these companies review their operating expenses and try to manage their operating expenses. Like all other profitability ratios, operating profit margin is also crucial for the investors and stockholders. Investor may not prefer to invest their money into these companies which have lower operating profit margin than competitors in the same industry. On the other hand, other five companies, namely, ETILR, AVTUR, MARTI, UTPYA, MERIT have greater operating profit margin values than median (0,017). Ratio values above the median may mean that these five companies made their profit from primary operation and so investor might pay attention to them.

**5.1.4.3. Gross Profit / Net Sales (Gross Profit Margin):** It measures operational performance of company by using relationship between gross profit and revenue. Table 8 illustrates the gross profit margin of these eleven companies in the tourism sector. The results show that the gross profit margin of seven of eleven companies are greater than median (0,205) whereas the ones of AYCES (0,14), PKENT (-0,01), ULAS (0,00), KSTUR (-1,03) are below the median. On one hand, having these lower gross profit margin values, net sales volume of AYCES (0,14), PKENT (-0,01), ULAS (0,00), KSTUR (-1,03) might decrease in a period while constant cost

of goods sold continues or increases in same period. By comparing with the previous period as well as the competitors, these companies may understand whether they can manage their cost of goods sold or not. On the other hand, other seven companies, AVTUR, ETILR, MAALT, MARTI, TEK TU, UTPYA, and MERIT exhibit greater values than median (0,205). These higher values mean that net sales volume might increase in a period while constant cost of goods sold continues or decreases in same period.

**5.1.4.4. Net Profit / Net Sales (Net Profit Margin):** It shows the percentage of each sales dollar remaining after the company has paid all costs and expenses including interest, taxes and preferred stock dividends (if exists). Net profit margins of eleven companies in the tourism sector are compared with the quartiles of 2019 in Table 8. Based on the results, six of eleven companies operating in tourism sector, excluding AYCES (-0,47), PKENT (-0,03), TEK TU (-2,69), ULAS (0,00), UTPYA (-0,91) operate with a greater value than median (0,011). However, AYCES (-0, 35), PKENT (-0, 13), ULAS (0,00), UTPYA (-0,91) have values below the median (0,011). These companies with lower net profit margin might struggle with high amounts of expenses and fail to achieve their own sales goals. Moreover, they should focus how to manage all their costs and expenses. On the other hand, other six companies, AVTUR (0.81), ETILR (3.62), MAALT (3.40), MARTI (0.89), KSTUR (0.35), and MERIT (0.51), having greater values than median (0,011), might be able to manage expenses and pricing strategy well.

**5.1.4.5. Net Profit / Total Assets (Return on Asset -ROA):**

It shows how a company makes profit from its operations in relation with total assets. In other words, it measures the overall effectiveness of a company in generating profit with its available assets. According to the Return on Asset ratios of eleven companies in this sector shown in Table 8, seven of eleven companies, excluding AYCES (-0.04), PKENT (-0,02), TEK TU (-0,04), and UTPYA(-0,11) create greater values than median (0,005). These lower values of ROA mean that these companies might not use their assets effectively to generate revenues. On the other hand, other seven companies, AVTUR, ETILR, MAALT, MARTI, ULAS, KSTUR, and MERIT had greater values than median (0,005). These companies with the higher ROA values might be able to use their asset investment more effectively and therefore generating more profit with their available assets when compared with four



companies having below values than median.

**5.1.4.6. Profit Before Interest and Taxes / Interest Expenses (Times Interest Earned Ratio):** It measures whether a corporation is able to pay the interest due on debts. Table 8 shows times interest earned ratio of eleven companies in the tourism sector in Turkey. Nine of eleven companies excluding AVTUR (70,67), MAALT (5,58) are found to have lower values than median (1,546). In other words, these nine companies, AYCES, ETILR, MARTI, PKENT, TEKTU, ULAS, UTPYA, KSTUR, and MERIT could not generate enough profit to pay their interest expenses on time. It means that these companies might have to spend their cash reserve in order to pay their interest expenses. Furthermore, the creditors may not be willing to lend loans to these companies in that their default risk may be evaluated as too high. On the other hand, AVTUR and MAALT, which have higher value than median, may be evaluated as less risky in term of default risk. Debtors may be more willing to lend them.

As a result, COVID-19 has a negative impact on the tourism industry and its selected financial ratios. The most affected ratios can be said as leverage ratio, inventory turnover ratio and interest coverage ratio (times interest earned ratio). It may be explained by the fact that huge decreases in the sales revenue due to COVID-19 results in a decline in the inventory turnover ratios as the inventories could not be turnover quite rapidly. Moreover, the companies have to get more credit in order to make their payments and therefore have some problems in making their interest payments on time because of not generating enough profit.

#### **5.1.5. Quarterly Analysis of Liquidity Ratios**

##### **5.1.5.1. Current Ratio:**

Current ratios of eleven companies served under tourism sector were quarterly compared with the quartiles of 2019 at Figure 7. Results showed that AYCES and MARTI had lower current ratios than median for whole year whereas MAALT, ETILR, TEKTU had increased their ratios towards end of the year. So, these companies might neither afford their short term liabilities, nor find credit due to low current ratios. On the other hand, AVTUR, ULAS, KSTUR, MERIT had strong current ratios for whole year and had values above median. These companies might

be said to have healthy current ratios and be capable of their short term liabilities when compared with quartiles of 2019. But these higher ratios than median might also mean that companies did not use their assets efficiently and preferred to keep their cash and equivalent on hand rather than making an investment as a precaution to COVID-19 uncertainty.



Figure 7: 2020 Quarterly Current Ratios vs. 2019 Quartiles (Source: KAP Reports, 2020)

#### 5.1.5.2. Quick (Acid-Test) Ratio:

Figure 8 illustrates quick ratios of eleven companies in tourism sector and then quarterly ratios are compared with the quartiles of 2019. The results in the figure indicate that AYCES, MARTI and ETILR operate with lower ratios than median in some quarters of the year whereas AVTUR, PKENT, MAALT, ULAS, UTPYA, KSTUR, MERIT, TEKTU have higher current ratios, which are higher than median, for the whole year. This supports the idea that AYCES, MARTI and ETILR have some problems in meeting their short-term liabilities. On the other hand, AVTUR, TEKTU, PKENT, MAALT, ULAS, UTPYA, KSTUR, MERIT have higher values than the median, implying that they liquidity performance is good. However, it is

important to keep in mind that these companies may have large amount of money at account receivable which results in a higher quick ratio. But, if companies cannot collect their receivable or if due date is longer than usual on term on sale, short term liabilities may not be paid on time. Therefore, even if the companies do not have a serious problem in terms of liquidity, they should be following the changes and trends in the specific accounts.



Figure 8: 2020 Quick Ratios vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

### 5.1.5.3. Cash Ratio:

As shown in Figure 9, quarterly cash ratios of eleven companies in tourism industry are compared with respect to 2019 quartiles. The results illustrate that MARTI, TEKTU, UTPYA, MERIT exhibit lower values than median for whole years whereas AYCES, AVTUR, PKENT, ETILR, MAALT have showed an increasing trend in their cash ratios towards end of the year. So, these companies may have liquidity problem that cause them to fail. Additionally, they may have difficulties in extending more credit due to their low cash ratios. Similar to other liquidity ratios, Cash ratio,

shows the company's ability to pay its short-term obligations but only with cash and cash equivalents. Therefore, if a company is more likely to become insolvent, this is the most realistic ratio that shows the company's liquidity performance. This ratio is also used by the creditors to understand the worst case for the company. On the other hand, other companies, KSTUR and ULAS, having values above median for whole year, might be said to have healthy cash ratios and be capable of paying their short-term liabilities when compared with quartiles of 2019.

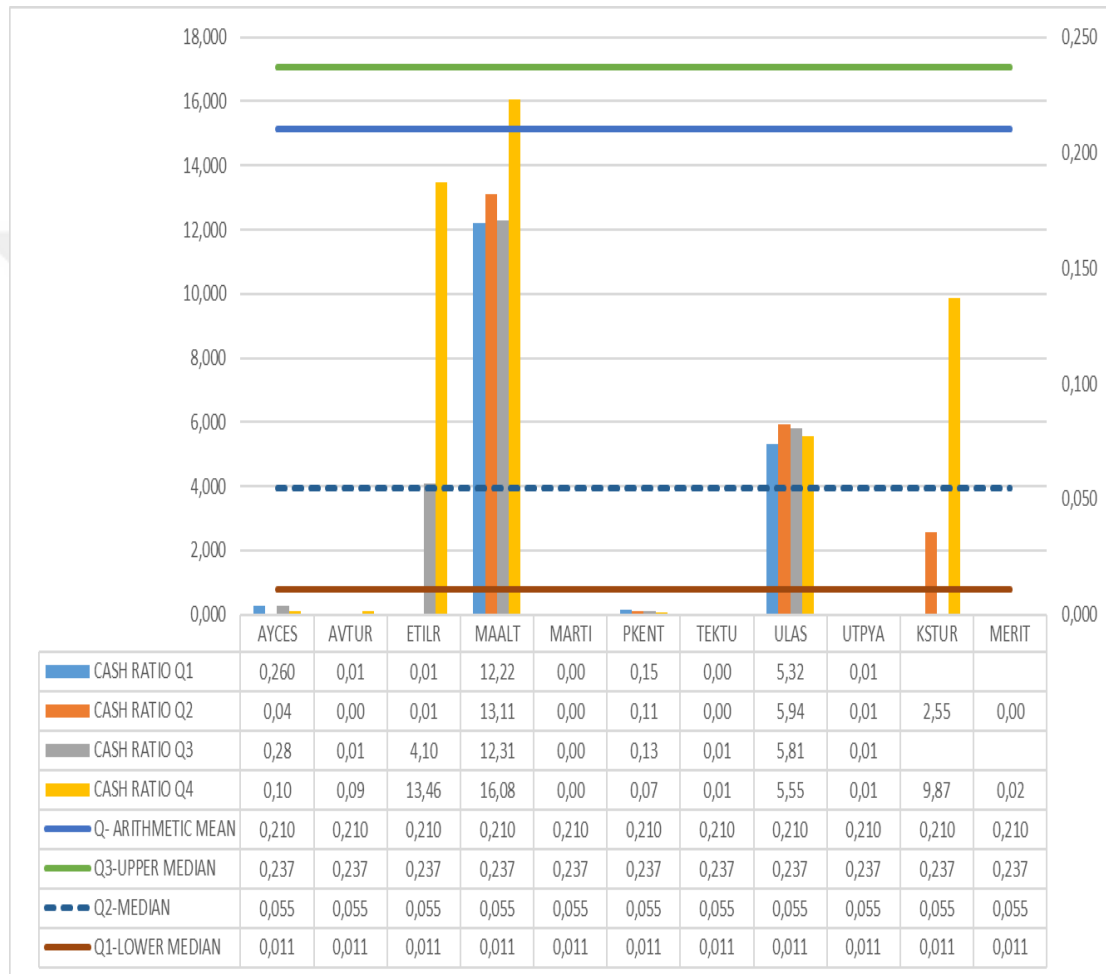


Figure 9: 2020 Cash Ratios vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

### 5.1.6. Quarterly Analysis of Ratios of Financial Position

#### 5.1.6.1. Total Loans / Total Assets (Leverage Ratio):

Leverage ratios of eleven companies in tourism sector are quarterly compared with the quartiles of 2019 and presented in Figure 17. Based on the results in Figure 10, AYCES, AVTUR, ULAS, KSTUR, MERIT, MAALT and TEKTU have lower value than median for whole year whereas ETILR, PKENT have lower ratios in some

quarters of year. These results imply that that these companies have strong leverage ratios and good credit ratings due to the inverse relation between leverage ratio and median. On the other hand, MARTI and UTPYA, which have values above the median, are mainly being financed by creditors rather than owner`s equity. These two companies should be careful about getting additional loans since they take greater risk of being unable to meet its contractual debt payments.



Figure 10: 2020 Total Loan/ Total Assets vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.6.2 .Shareholders Equity / Total Assets:** Quarterly shareholders' equity / Total Assets ratios of eleven companies compared with the quartiles of 2019 are provided in Figure 11. Results showed that MARTI, and UTPYA have lower values than median (0,393) whereas ETILR, MAALT, PKENT have increased their ratios above median towards the end of the year. This means that these companies use more debt financing than equity financing, thus, they might not find long term credits due to higher debt ratios or lower equity ratios. On the other hand AVTUR, AYCES, ULAS, KUSTUR, MERIT generate values that are quite above the upper quartile (0,737) whereas TEKTU shows smooth trend above median for the whole year. It

indicates that these companies show better performance when compared with quartiles of 2019. However, it may mean that companies were not able to benefit from long term credit opportunities or preferred to be cautious against recession due to the COVID-19.

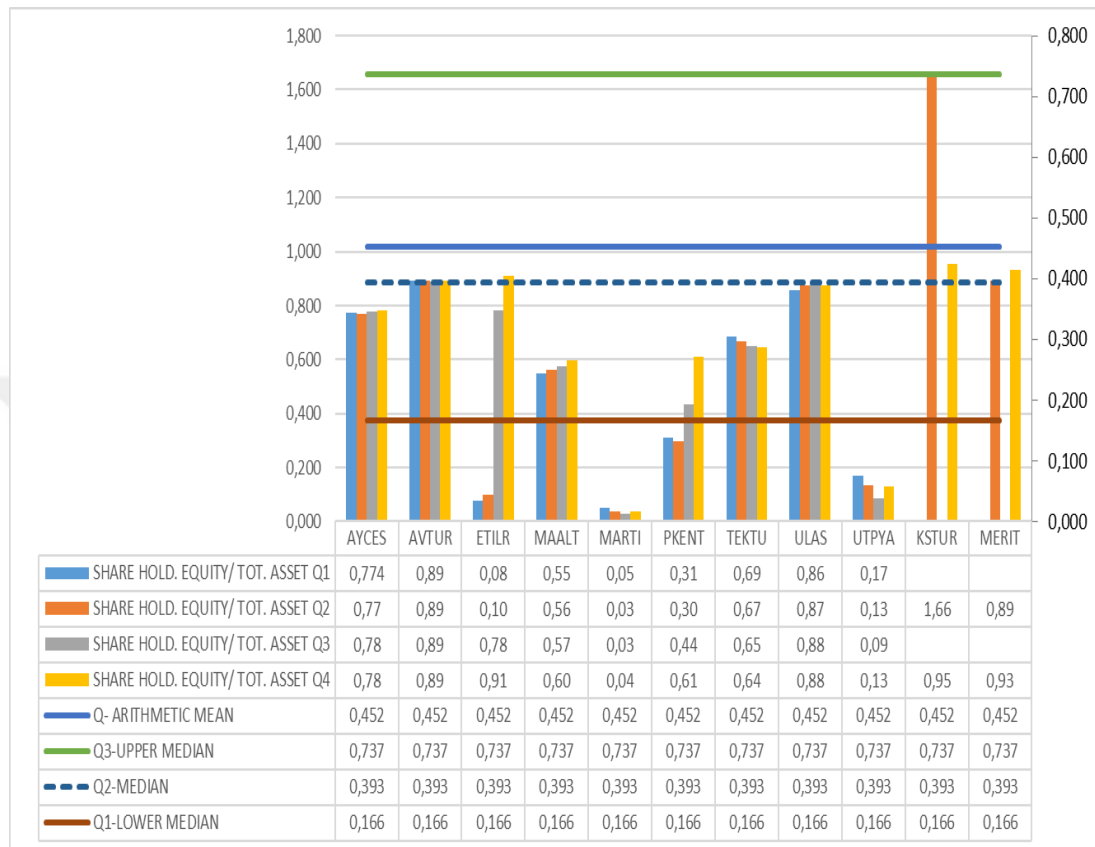


Figure 11: 2020 Shareholders. Equity/ Total Assets vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.6.3. Shareholders Equity / Total Loans:** Figure 12 illustrates quarterly Shareholders Equity / Total Loans ratio of eleven companies in tourism sector. The results in Figure 19 show that AYCES, AVTUR, TEKTU, ULAS, PKENT, KSTUR, UTPYA, MERIT have greater values than median (0,089). This means that these companies have stronger ratio when compared with quartiles of 2019. However, it may mean that these companies may prefer to be cautious against recession due to the COVID-19. On the other hand, MARTI provides a lower ratio than median for whole year, except 1<sup>st</sup> quarter, whereas ETILR and MAALT showed an increasing performance above median towards end of the year. In other words, if these companies excluding MARTI may not find long term credits due to their lower ratios, they have no financial power to sustain their existence.

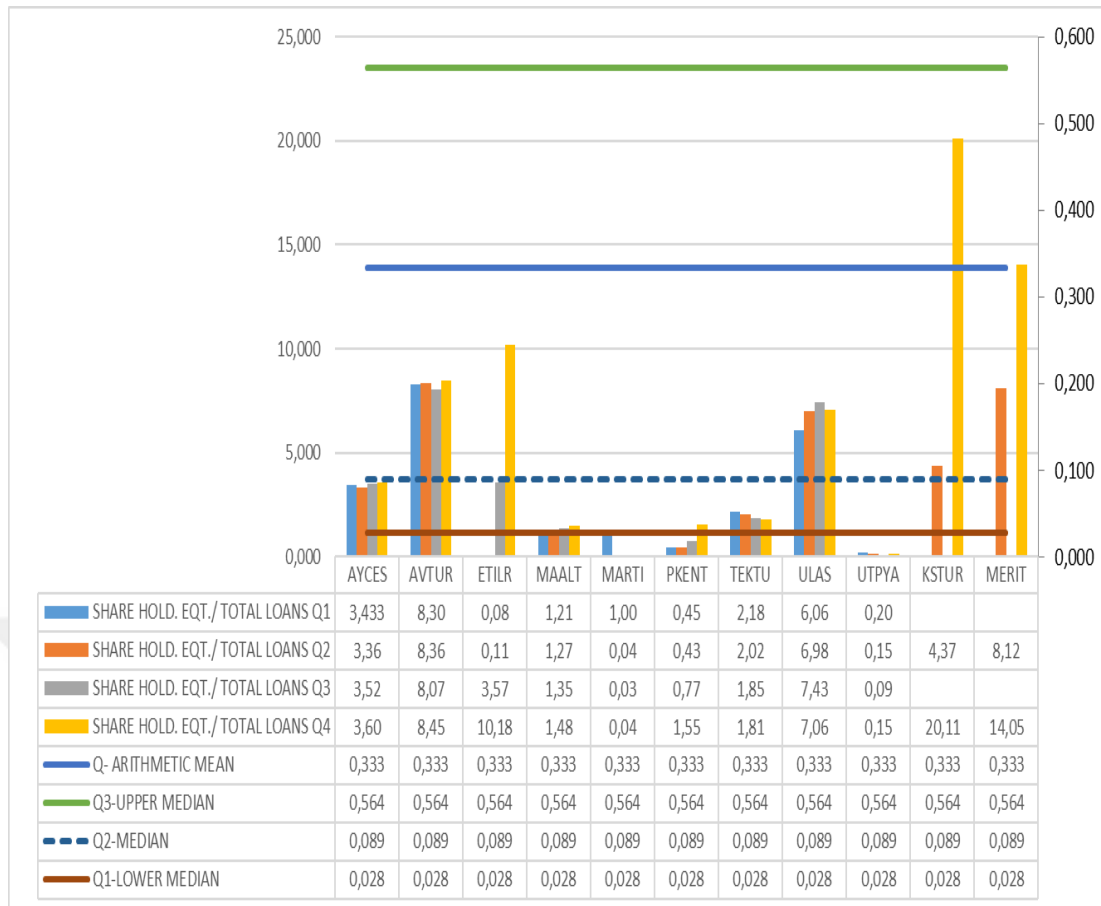


Figure 12: 2020 Shareholders. Equity/ Total Loans vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

### 5.1.7. Quarterly Analysis of Turnover Ratios

**5.1.7.1. Inventory Turnover:** Inventory turnover ratio of eleven companies in tourism sector are quarterly compared with the quartiles of 2019 and provided in Figure 13. According to the results, all of eleven companies have higher ratios than median (0,073). However, these ratios might not be result of strong sales but insufficient inventory in that tourism industry is one of most affected sectors by COVID-19.

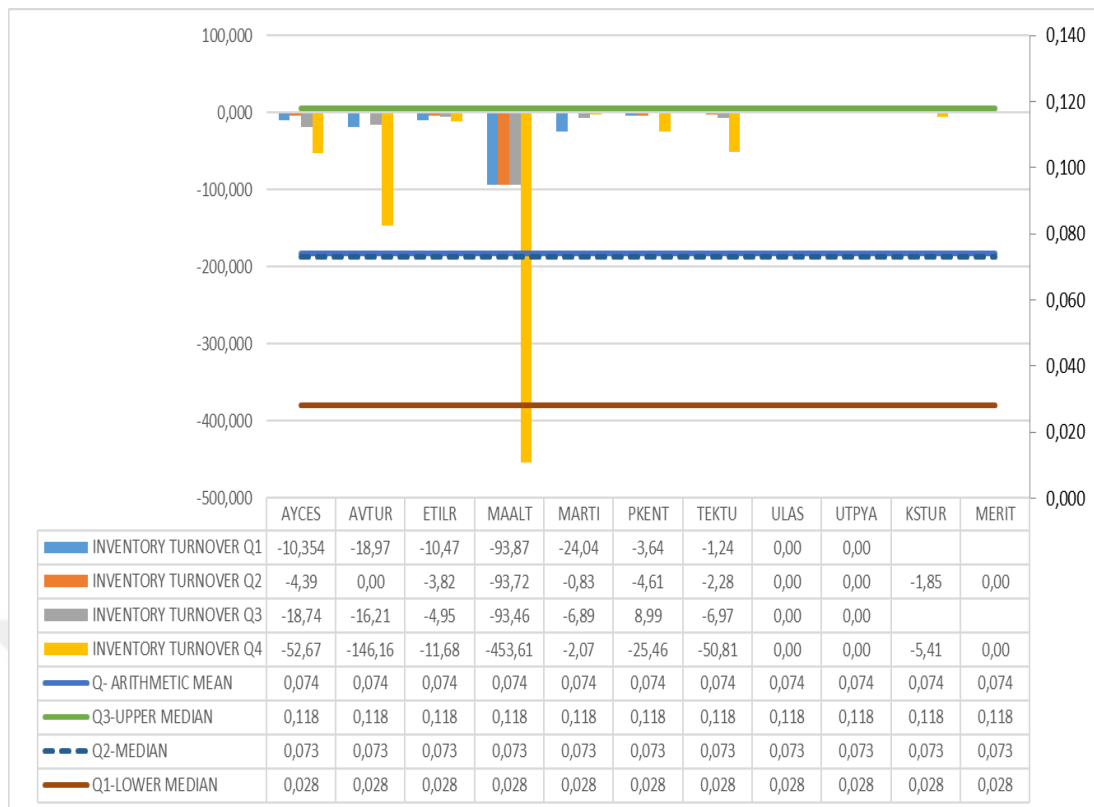


Figure 13: 2020 Inventory Turnover vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.7.2. Receivables Turnover:** As provided in Figure 14, the receivables turnover ratio of eleven companies in tourism sector are analyzed and compared with the 2019 quartiles. The results demonstrate that ten of eleven companies operating in tourism sector, excluding ULAS have greater values than median (0,060). However, ULAS has trade receivable with `zero` value which may mean that it collects all their receivables from debtors or its sales significantly slumps due to the COVID-19. On the other hand, other ten companies, TEKTU, AYCES, AVTUR, UTPYA, ETILR, MAALT, MARTI, PKENT, KSTUR, and MERIT, create greater values than median (0,06). It may mean they efficiently manage their receivables collection or operate on cash basis.



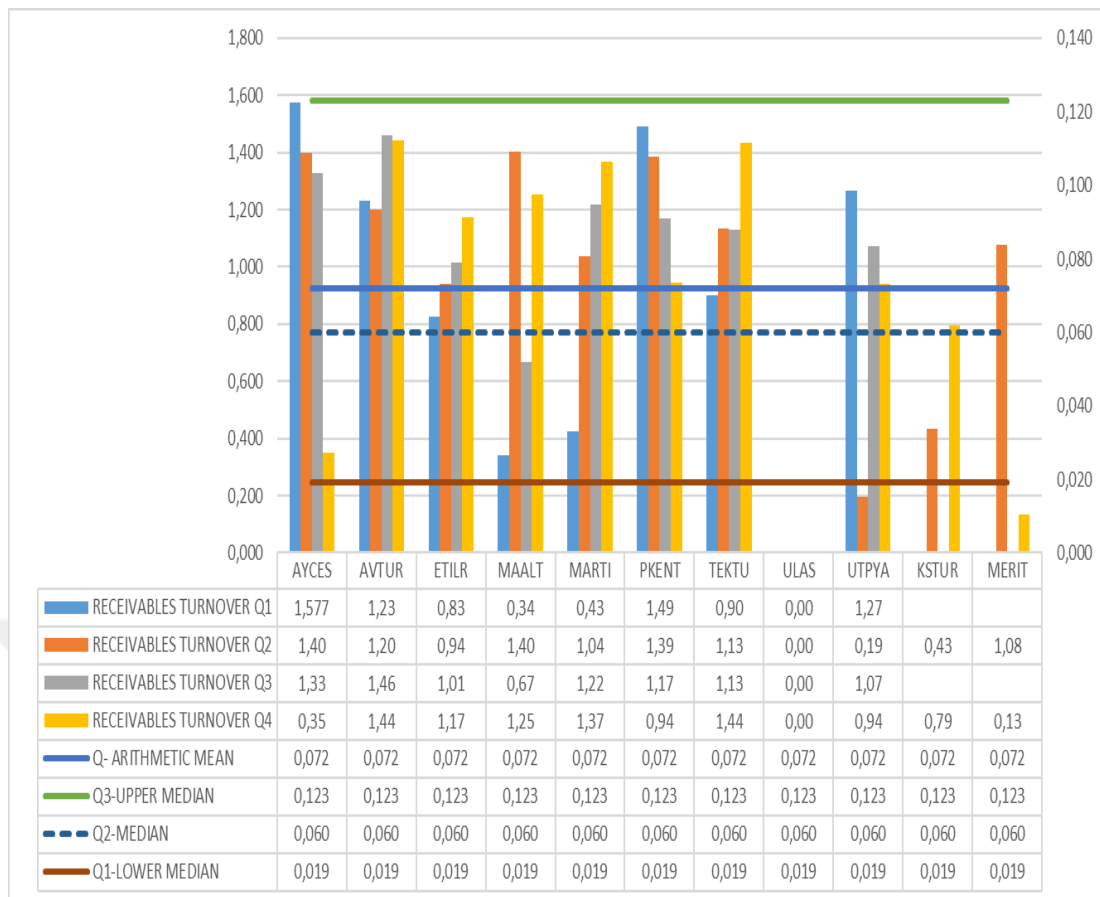


Figure 14: 2020 Receivables Turnover vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.7.3. Working Capital Turnover:** Working capital turnover ratio of eleven companies in tourism sector were quarterly compared with the quartiles of 2019 and given in Figure 15. According to results in Figure 15, MERIT and AYCES provide greater values than median (0,046). These high ratios may be interpreted as these companies use their short-term asset and liabilities to keep up their sales and growth. On the other hand, ULAS and MAALT have lower ratios than median at the end of the year whereas AVTUR, UTPYA, ETILR, MARTI, PKENT, TEKUTU, and KSTUR have increased their ratios towards the end of the year. The lower ratio generally may arise from high inventory and account receivable but COVID impact is needed to be taking into consideration at this study too.

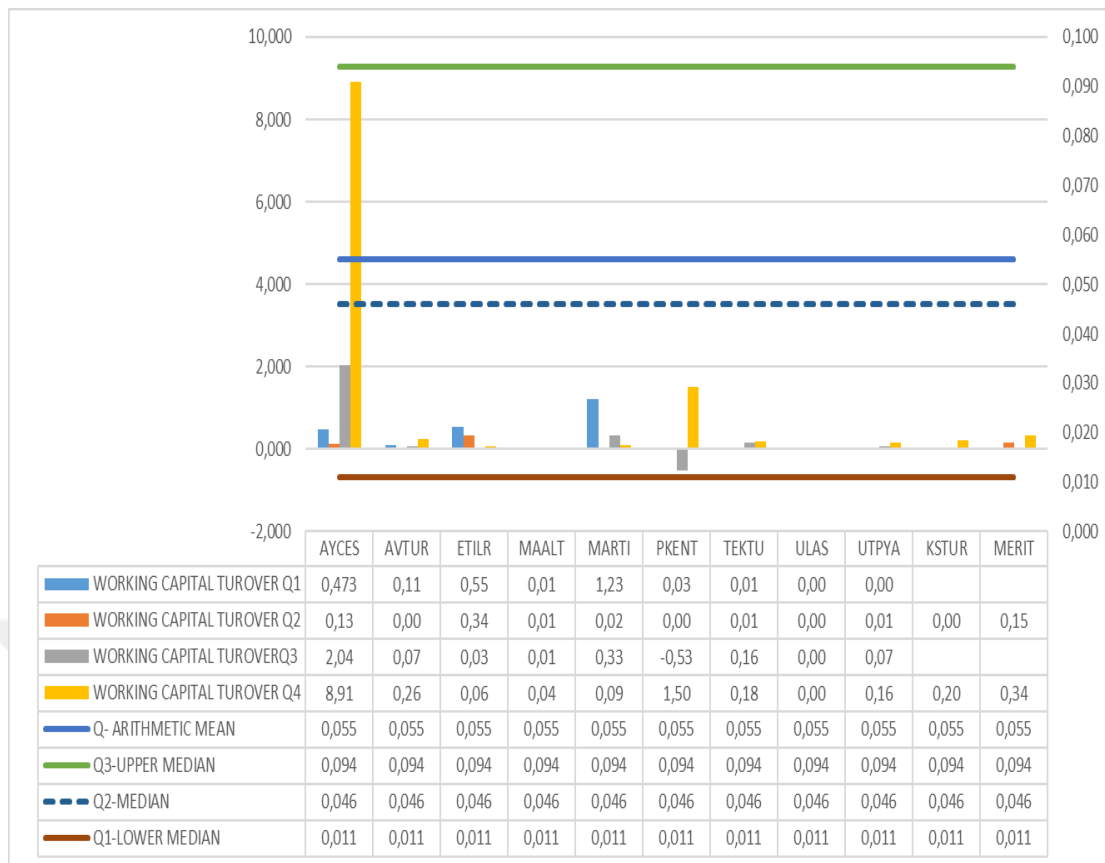


Figure 15: 2020 Working Capital Turnover vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.7.4. Net Working Capital Turnover:** Net working capital turnover ratios of eleven companies served under tourism sector, which are quarterly compared with the quartiles of 2019, are represented in Figure 16. The empirical results show that AVTUR, ULAS, KSTUR, and MERIT have greater values than median (-0,016). These high ratios mean that companies can meet their financial obligations as they come due. On the other hand, AYCES, TEKUTU, UTPYA had lower values than median whereas other six companies, ETILR, MAALT, PKENT, and MARTI have increased their values than median towards end of the years. These companies may not make their payments on time due to having lower ratios than median.



Figure 16: 2020 Net Working Capital Turnover vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.7.5. Total Assets Turnover:** Figure 17 presents Total Assets Turnover ratios of eleven companies in tourism sector and these ratios are also quarterly compared with the 2019 quartile. The empirical results indicate that MARTI, TEKUTU, and ULAS have the values below the median (0,025) for almost whole year while AYCES, AVTUR, MAALT, PKENT, UTPYA and KSTUR have increased their ratios towards end of the year. The ratio lower than the median implies that the companies cannot use their assets efficiently to generate sales revenue. On the other hand, ETILR and MERIT have greater values than median (0,025). These higher ratios above median mean these companies can use their assets so efficiently to generate sales.



Figure 17: 2020 Total Assets Turnover VS. 2019 Sectoral Averages (Source: KAP Reports, 2020)

### 5.1.8. Quarterly Analysis of Profitability Ratios

**5.1.8.1. Net Profit / Shareholders Equity:** Net Profit / Shareholders Equity ratios of eleven companies operating in tourism sector with the quarterly comparison of 2019 quartiles are provided in Figure 18. The results support that AYCES (excluding 3<sup>rd</sup> quarter), AVTUR, PKENT, TEKTU, UTPYA, KSTUR, and MERIT have lower values than median for whole year whereas ETILR, MAALT, MARTI, and ULAS have increased their values above median towards end of the years. Thus, these four companies may be considered as more profitable than the other seven companies.



Figure 18: 2020 Net Profit/ Shareholder Equity vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.8.2. Operating Profit / Net Sales (Operating Profit Margin):** Operating profit margins of eleven companies in tourism sector are quarterly compared with the 2019 quartiles and the results are presented in Figure 19. According to the empirical results, AYCES, MAALT, PKENT (excluding 3<sup>rd</sup> quarter) and TEKTU, ULAS, KSTUR exhibit values lower than median for almost whole year whereas AVTUR, ETILR, MARTI, and UTPYA have increased their values towards end of the year. The lower operating profit margin values imply the fact that these companies might have some problems with resource management, marketing and pricing policy. This may be explained by not managing well their operating expenses. Therefore, investors may not prefer to invest their money in these companies, having smaller values than the competitors in the same industry. On the other hand, MERIT, with a greater value than the median (0,017), may have made more “pure profit” earned on each sales dollar. Operating profits are crucial for the investors, stockholders and also analysts since they are “pure”, meaning that they measure only the profits from the operations.

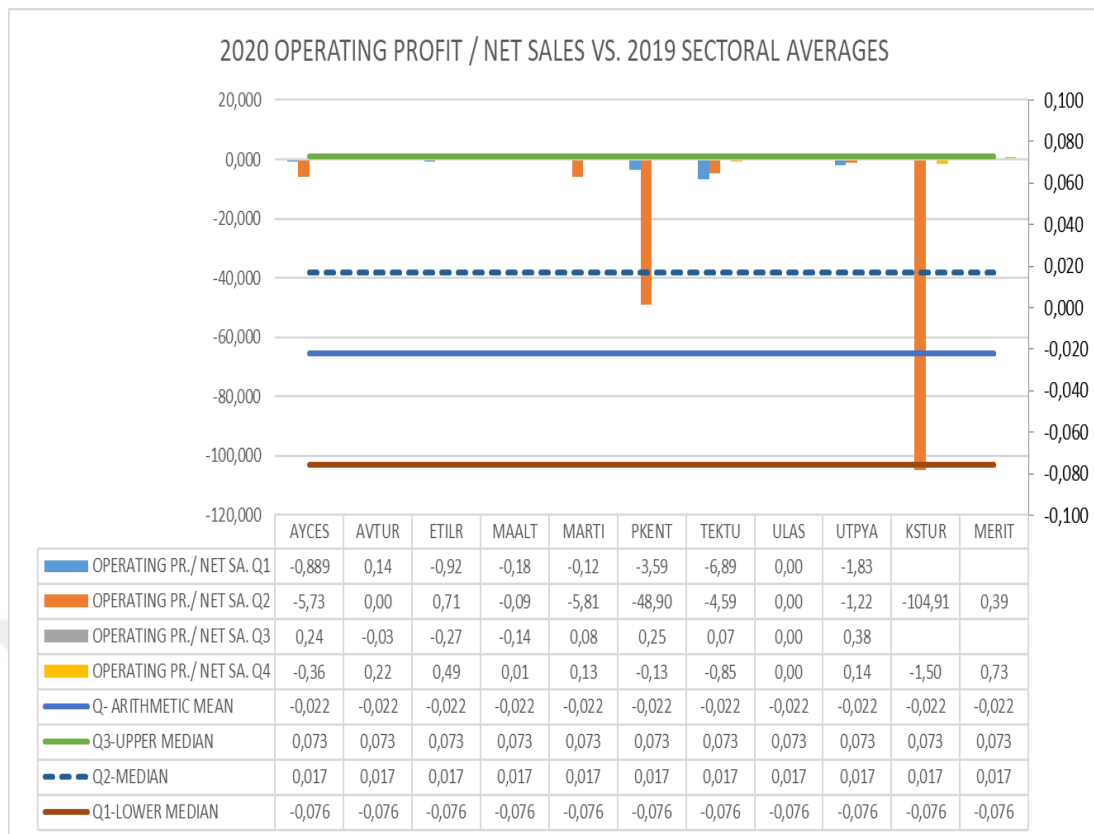


Figure 19: 2020 Operating Profit / Net Sales vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.8.3. Gross Profit / Net Sales (Gross Profit Margin):** Gross Profit Margins of eleven companies operating in tourism sector are quarterly compared with the quartiles of 2019 in Figure 20. The findings express that AYCES and PKENT (excluding 3<sup>rd</sup> quarter) have lower values than median for almost whole year while AVTUR, ETILR, MARTI, TEKTU, and UTPYA have increased their values towards end of the year. This implies that these companies generate less gross profit from their net sales. Gross profit margin is so important for the investors, analysts as well as stockholders because it is considered as a “markup” on a company’s products. A lower gross profit margin implies that a company cannot charge a great deal more than the production costs of the product. A very low gross profit margin may be interpreted as a sign of a weakening competitive position for a company. On the other hand, MAALT and MERIT had values above the median. It meant that companies generated more revenues from the sales and therefore they were more efficient to turn their materials to income. A company with a higher gross profit margin can charge a higher price with respect to the amount that it spends to make a

product, implying an indicator of a strong competitive position for the company in the market.

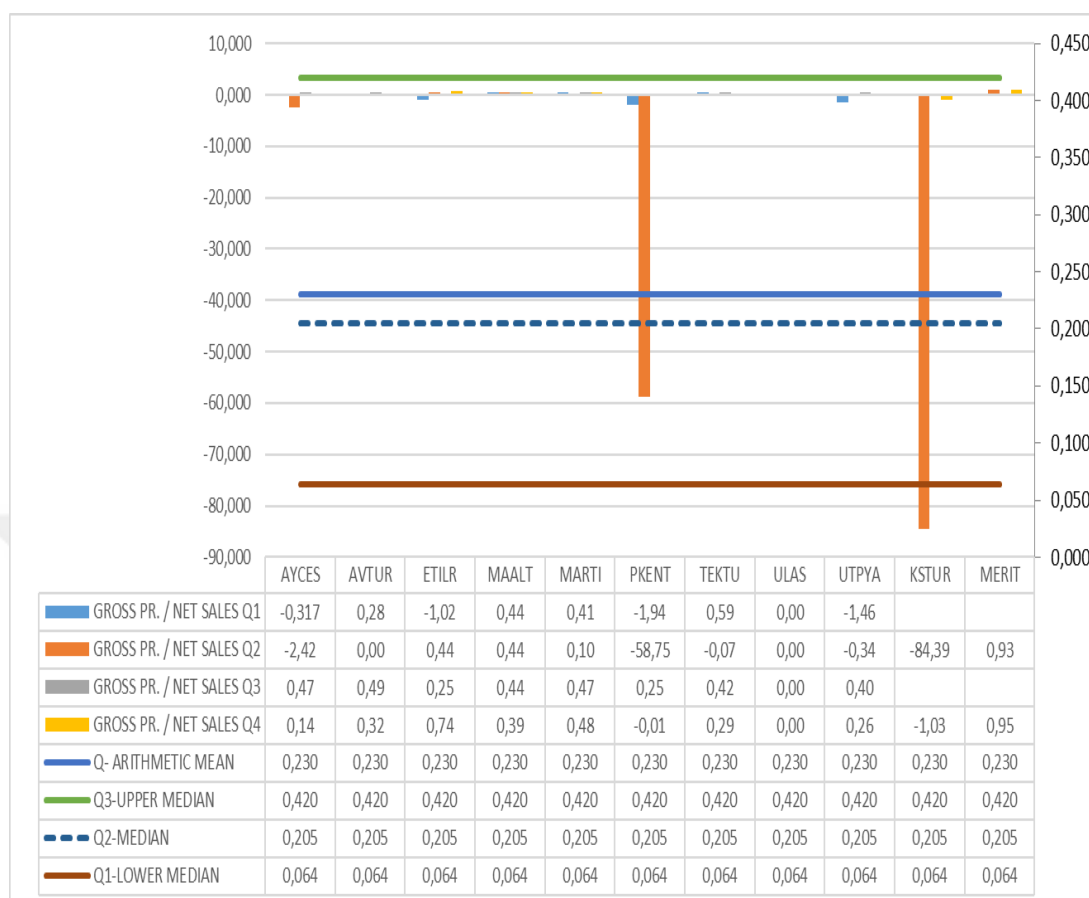


Figure 20: 2020 Gross Profit / Net Sales vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.8.4. Net Profit / Net Sales (Net Profit Margin):** Net profit / Net sales ratios of eleven companies operating in tourism sector are calculated quarterly and compared with the quartiles of 2019 at Figure 21. The findings illustrate that PKENT, TEKTU, ULAS, and UTPYA have values below the median (0,011) while AYCES (at the 3<sup>rd</sup> quarter of the year), AVTUR, MARTI, and KSTUR exhibit values above the median towards end of the year. These lower values mean that companies might struggle with high amounts of operating, interest and tax expenses and fail to achieve sales goals. On the other hand, ETILR (excluding 1<sup>st</sup> quarter), MAALT (excluding 3<sup>rd</sup> quarter), and MERIT generate greater values than median (0,011). These high values mean that companies might be able to manage their expenses well and apply appropriate pricing strategies.



Figure 21: 2020 Net Profit / Net Sales vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.8.5. Net Profit / Total Assets (Return on Assets – ROA):** Figure 22 provides Return on Assets of eleven companies in tourism sector and also presents quarterly comparison of these ratios with the quartiles of 2019. The empirical findings demonstrate that TEKTU, AYCES (excluding 3<sup>rd</sup> quarter) and PKENT and UTPYA have values below the median for almost whole year while AVTUR, MARTI, ULAS and KSTUR have increased their values towards end of the year. The lower ROA values mean that companies might not use their asset investments so effectively to generate profits. On the other hand, ETILR (excluding 1<sup>st</sup> quarter), MAALT (excluding 3<sup>rd</sup> quarter), and MERIT operate with values above the median (0,005). The higher ROA values also imply that companies might have effective management in generating profits with their available assets.



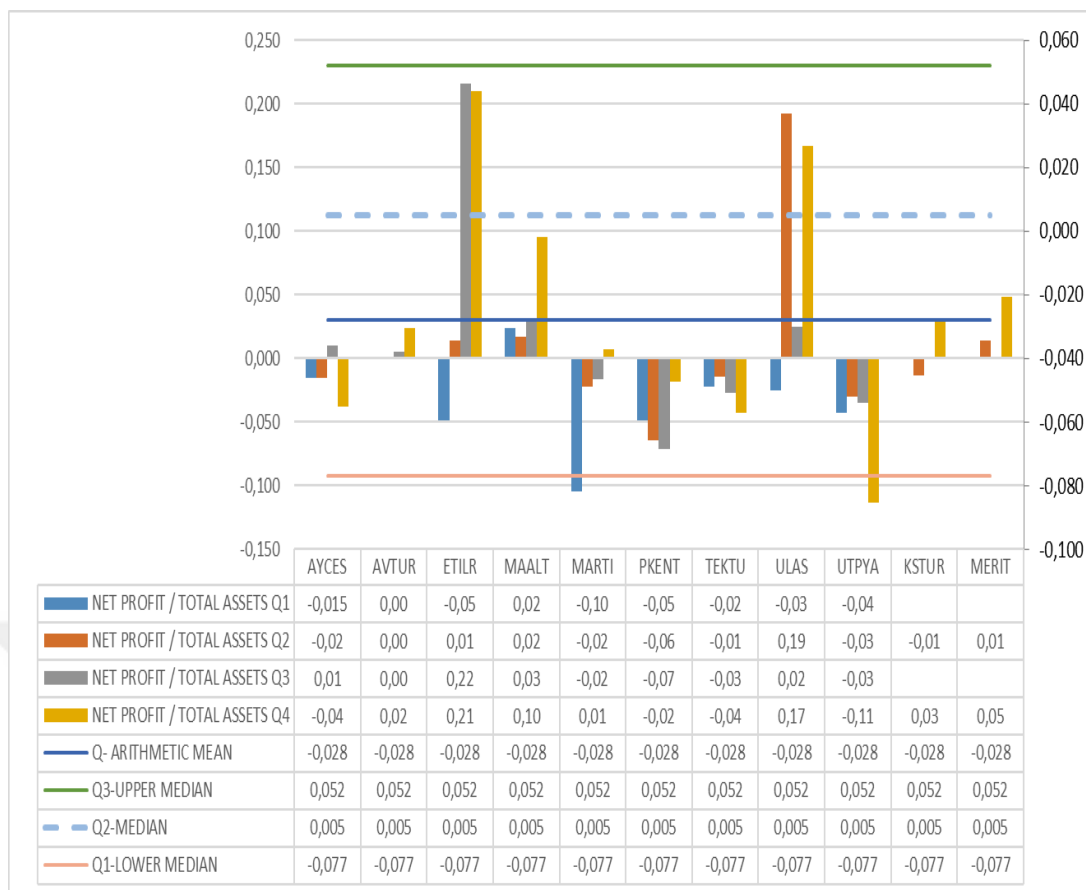


Figure 22: 2020 Net Profit / Total Assets vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

**5.1.8.6. Profit Before Interest and Tax / Interest Expenses (Interest Coverage Ratio – Times Interest Earned Ratio):** Interest coverage ratio or times interest earned ratios of eleven companies in tourism sector are given in Figure 23. The results show that AYCES, TEKTU and ULAS (excluding 3<sup>rd</sup> quarter), and UTPYA (excluding 1<sup>st</sup> and 2<sup>nd</sup> quarters) exhibit values below the median while ETILR, MARTI, PKENT, KSTUR and MERIT have values below the median for the whole year. This implies that that these companies cannot generate enough profit to pay their interest expenses. In other words, these companies might have to spend their cash reserve in order to pay their interest expenses. Furthermore, the lenders may not be willing to lend these companies in that their default risk may be too high. However, AVTUR and MAALT have increased their values towards end of the year. So, they, having a greater value above median, may be considered as less risky in term of default risk. Debtors may be more willing to lend credit to this company.

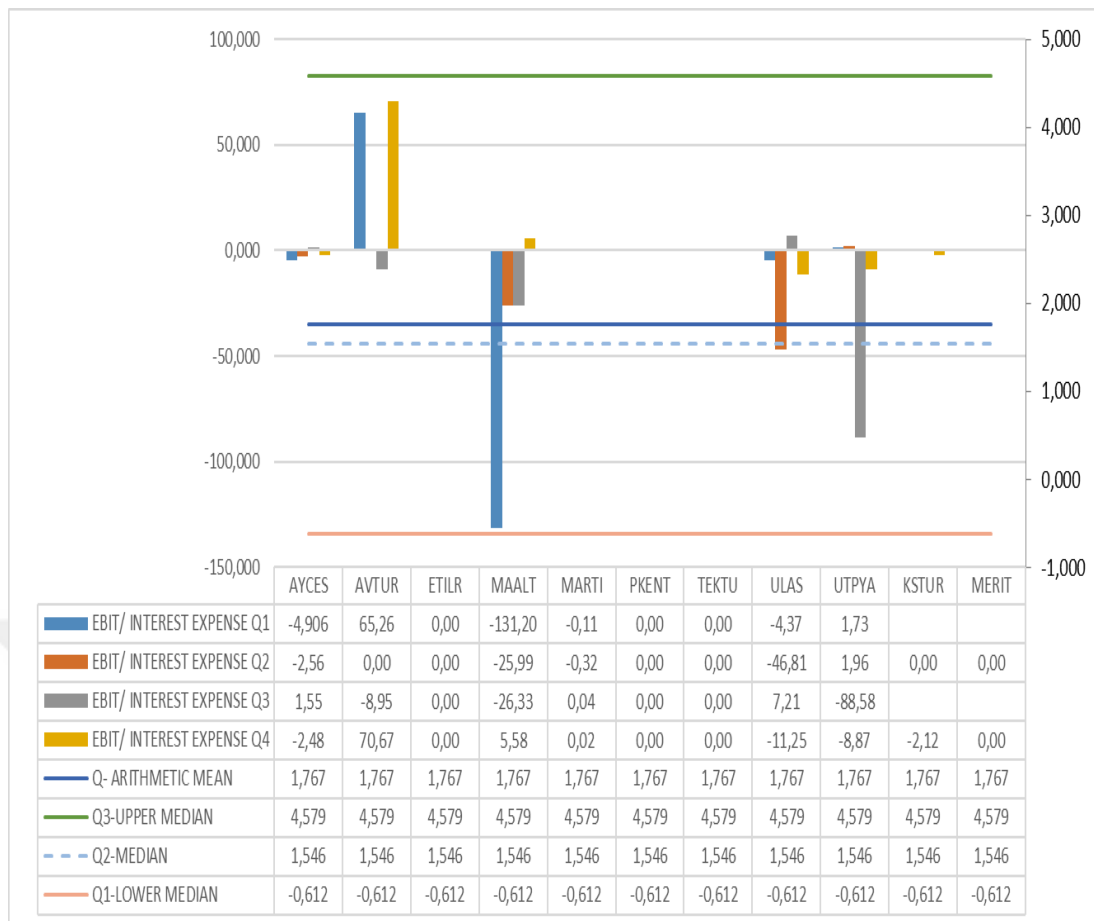


Figure 23: 2020 EBIT/ Interest Expense vs. 2019 Sectoral Averages (Source: KAP Reports, 2020)

As a result, based on ratio analysis, H1, H2, H3 and H4 are accepted. Because liquidity, ratios of financial position, turnover ratios and profitability ratios are negatively affected by COVID-19. This situation in tourism industry can be explained with the restrictions implemented after first COVID-19 case appeared in March, 2020. Following these restrictions, hotel and restaurant sector come to standstill their activities which are depend on human interaction and mobility. Therefore, all the hypotheses are accepted. However, there are differences at the level impact among the ratios. Liquidity and ratios of financial positions can be said to recovery trend towards the end of 2020 whereas turnover and profitability ratios are less inclined to recovery trend.

## **CHAPTER 6: CONCLUSION**

This study is motivated by tourism and COVID-19 common denominator which is human mobility and interaction. As the COVID-19 spread increases globally, tourism sector in Turkey have been affected adversely in parallel with COVID-19 cases numbers. This thesis aims to investigate whether COVID-19 has any negative impact on the performance of the Turkish companies operating in hotel and restaurant sector by using ratio analysis. The impact of COVID-19 on the liquidity, financial position, profitability and turnover ratios are separately investigated for each company. The results reveal that COVID-19 affected almost all of the ratios used in this study but profitability ratios of the eleven companies in hotel and restaurant sector had been affected negatively for whole year. It means that these eleven companies could not use their assets to generate revenue due to the restrictions such as partial or fully lockdowns to prevent COVID-19 spread.

On the other hand, inventory turnover ratio and net working capital out of turnover ratios of eleven companies in this study had been affected negatively for whole year. It means that these companies were neither capable of selling their inventories nor able to utilize their assets efficiently. These results may mean that a restaurant or a hotel could not invest their money to buy some consumable inventory and janitorial items due to the lockdowns and other restrictions as a result of COVID-19. So, they could not utilize their assets efficiently even if they wanted to do so due to the compelling reason.

The results also support the adverse relation between COVID-19 and tourism sector which is based on human mobility and interaction. It may mean that tourism sector is not able to even out financial ratios with industry ratios of pre-pandemic period, as long as COVID-19 pandemic still exists.

With respect to results of this thesis, the managers of hotel and restaurant sector can refer to this thesis to develop strategic planning specifically becoming resilient in case COVID-19 continues in next years. Also, potential investor and shareholders can benefit from this study to make a decision for their current and next investments.

These results also may be useful for government agencies to decide whether financial measurements implemented in hotel and restaurant sector will be continued as they started or they will be revised or abolished in line with pandemic conditions.

This thesis is not free from limitations. It focuses on hotel and restaurants sector in Turkey. It may not be useful to generalize results of this thesis to other sectors in Turkey in that good ratio values may differ from every sector. Further research should be done to make better prediction possible impacts of COVID-19 to the economies.



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