

# Evaluating the Financial Performances of the Publicly Held Healthcare Companies in Crisis Periods in Türkiye

[Dilaver Tengilimođlu](#)\*, Tolga Tümer , Russell L. Bennett , [Mustafa Z. Younis](#)

Posted Date: 10 July 2023

doi: 10.20944/preprints2023070590.v1

Keywords: healthcare companies; financial performance; crisis periods; economic crisis; COVID-19; earthquakes



Preprints.org is a free multidiscipline platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Article

# Evaluating the Financial Performances of the Publicly Held Healthcare Companies in Crisis Periods in Türkiye

Dilaver Tengilimoğlu <sup>1,\*</sup>, Tolga Tümer <sup>2</sup>, Russell L. Bennett <sup>3</sup> and Mustafa Z. Younis <sup>4</sup>

<sup>1</sup> Department of Management, Faculty of Management, Atılım University, Gölbaşı, Ankara 06830, Türkiye; dilaver.tengilimoglu@gmail.com

<sup>2</sup> Department of Management, Faculty of Management, Atılım University, Gölbaşı, Ankara 06830, Türkiye; tolgatumer94@hotmail.com

<sup>3</sup> Department of Health Policy and Management, College of Health Sciences, Jackson State University, Jackson, MS 39213, USA; russell.l.bennett@jsums.edu

<sup>4</sup> Department of Health Policy and Management, College of Health Sciences, Jackson State University, Jackson, MS 39213, USA; younis99@gmail.com

\* Correspondence: dilaver.tengilimoglu@gmail.com

**Abstract:** The purpose of this study was to evaluate the financial performances of the publicly held healthcare companies in crisis periods in Türkiye by statistical analyses. For this purpose, we conducted Wilcoxon signed-rank tests. We used financial data of the publicly held healthcare companies in Türkiye and we did separate analyses for each crisis period in Türkiye in the last 10 years. The results of the analyses showed that there were no statistically significant differences between the publicly held healthcare companies' financial performances before the crises and after the crises. This suggests that the Turkish publicly held healthcare companies' financial performances during the crisis periods in the last 10 years were strong. Nevertheless, policy makers and company managers should remain guarded as the results does not guarantee success in possible future crisis periods that may emerge at any time and bring new challenges.

**Keywords:** healthcare companies; financial performance; crisis periods; economic crisis; COVID-19; earthquakes

## 1. Introduction

Crisis periods are times when the financial performances of firms are truly tested. In recent years, the biggest crisis that firms from all over the world had to face was the COVID-19 pandemic which caused the death of approximately seven million people worldwide according to the World Health Organization (WHO) [1]. Every sector and every firm was affected by the COVID-19 pandemic in one way or another, directly or indirectly. However, some sectors were affected by the COVID-19 pandemic more than other sectors and the healthcare sector was undoubtedly one of them. Shreffler et al. [2] included 37 studies in their review article and they found consistent reports of stress, anxiety and depressive symptoms in healthcare workers resulting from the COVID-19 pandemic. Moreover, lockdowns that were imposed during the COVID-19 pandemic affected the global pharmaceutical supply chain [3].

The healthcare sector of Türkiye was also affected significantly by the COVID-19 pandemic. Tengilimoğlu et al. [4] found that the fear to contaminate the COVID-19 virus to their families was the major cause of the anxiety or stress among healthcare workers in Türkiye. Additionally, Hacımusalar et al. [5] found that the healthcare workers' hopelessness and state anxiety levels were higher than non-healthcare workers in Türkiye, which is understandable as the healthcare workers were in the frontline during the COVID-19 pandemic. However, Öncü et al. [6] analyzed the effect of

the COVID-19 pandemic on health management and health services in Türkiye and found that Türkiye has managed the pandemic period sufficiently.

On the other hand, the COVID-19 pandemic wasn't the only crisis that the healthcare sector in Türkiye had to face in recent years. Just before the COVID-19 pandemic, an economic crisis had started in Türkiye in 2018 which is still going on today [7]. As every other sector in the country, healthcare sector was also inevitably affected by the economic crisis and the unemployment rates were risen [8].

Moreover, Türkiye experienced two major earthquakes within hours in February 6, 2023. Both earthquakes had such a high magnitude that it made the crisis one of the biggest disasters in Türkiye's entire history. The earthquakes caused the death of more than 50 thousand people, injured more than 100 thousand people and forced millions of people to leave their homes. Thus, the earthquakes had affected the whole country and of course the healthcare sector, as the healthcare sector was on the frontline once again. Mavrouli et al. [9] found that risk factors associated with infectious diseases were present from the first hours of the disaster. According to the Presidency of Strategy and Budget's report [10], total damage related to the healthcare sector was 4.3 billion dollars.

In this context, this study aimed to evaluate the financial performances of the publicly held healthcare companies in crisis periods in the last 10 years in Türkiye. For this purpose, statistical analyses have been carried out. The evaluation of the financial performances of the publicly held healthcare companies in crisis periods can lay the foundation for deeper analyses to help policy makers and company managers determine the problematic areas that need to be strengthened to perform better in possible future crisis periods.

## 2. Materials and Methods

In the study, Wilcoxon signed-rank tests were conducted by using financial data of the publicly held healthcare companies in Türkiye. Wilcoxon signed-rank test is a nonparametric test which can be used to compare two related samples to assess whether their mean ranks differ [11,12]. SPSS software was used for the analyses. Analyses were done for crisis periods in Türkiye in the last 10 years. For every crisis, financial data of the year before crisis and the year of crisis were compared in the analyses. The crises in Türkiye in the last 10 years, together with the years before crises and the years of crises are shown in Table 1.

**Table 1.** The Crises in Türkiye in the Last 10 Years, the Years Before Crises and the Years of Crises for Wilcoxon Signed-Rank Tests.

Crises	Years Before Crises	Years of Crises
2018 Economic Crisis	2017	2018
COVID-19 Pandemic	2019	2020
2023 Earthquakes	2022	2023

The publicly held healthcare companies in Türkiye were determined by using "TradingView" [13] website. The publicly held healthcare companies in Türkiye with their codes and company names are presented in Table 2.

**Table 2.** The Codes and the Company Names of the Publicly Held Healthcare Companies in Türkiye.

Codes	Company Names
ANGEN	ANATOLIA TANI VE BİYOTEKNOLOJİ ÜRÜNLERİ ARAŞTIRMA GELİŞTİRME SANAYİ VE TİCARET A.Ş.
AVHOL	AVRUPA YATIRIM HOLDİNG A.Ş.
DEVA	DEVA HOLDİNG A.Ş.
ECILC	EİS ECZACIBAŞI İLAÇ SINAİ VE FİNANSAL YATIRIMLAR SANAYİ VE TİCARET A.Ş.
EGEPO	NASMED ÖZEL SAĞLIK HİZMETLERİ TİCARET A.Ş.

GENIL	GEN İLAÇ VE SAĞLIK ÜRÜNLERİ SANAYİ VE TİCARET A.Ş.
KAYSE	KAYSERİ ŞEKER FABRİKASI A.Ş.
LKMNH	LOKMAN HEKİM ENGÜRÜSAĞ SAĞLIK TURİZM EĞİTİM HİZMETLERİ VE İNŞAAT TAAHHÜT A.Ş.
MEDTR	MEDİTERA TIBBİ MALZEME SANAYİ VE TİCARET A.Ş.
MPARK	MLP SAĞLIK HİZMETLERİ A.Ş.
ONCSM	ONCOSEM ONKOLOJİK SİSTEMLER SANAYİ VE TİCARET A.Ş.
RTALB	RTA LABORATUVARLARI BİYOLOJİK ÜRÜNLER İLAÇ VE MAKİNE SANAYİ TİCARET A.Ş.
SEYKM	SEYİTLER KİMYA SANAYİ A.Ş.
TNZTP	TAPDI OKSİJEN ÖZEL SAĞLIK VE EĞİTİM HİZMETLERİ SANAYİ TİCARET A.Ş.
TRILC	TURK İLAÇ VE SERUM SANAYİ A.Ş.

There are 15 publicly held healthcare companies in Türkiye as of 2023, but almost half of these companies went public only one or two years before and thus could not be included in the analyses because the required data for crisis periods could not be collected. Accordingly, financial data of 8 publicly held healthcare companies were collected from their annual balance sheet and income statement in independent audit reports. As the annual reports for 2023 are not yet published, the data for 2023 could not be collected and thus the analyses for 2023 earthquakes could not be conducted.

To measure the financial performances of firms, ratio analyses can be done [14–16]. In the study, liquidity, turnover, leverage and profitability ratios were calculated to measure the financial performances of the publicly held healthcare companies. The financial ratios that were used in the study and their calculations are presented in Table 3.

**Table 3.** The Financial Ratios That Were Used in the Study and Their Calculations.

	Financial Ratios	Calculations
Liquidity Ratios	L1: Current Ratio	Current Assets / Current Liabilities
	L2: Quick Ratio	(Current Assets – Inventories) / Current Liabilities
	L3: Cash Ratio	(Current Assets – Inventories – Accounts Receivable) / Current Liabilities
Turnover Ratios	T1: Inventory Turnover Ratio	Cost of Goods Sold / Inventories
	T2: Accounts Receivable Turnover Ratio	Net Sales / Accounts Receivable
	T3: Asset Turnover Ratio	Net Sales / Total Assets
Leverage Ratios	LV1: Total Debt Ratio	Total Debt / Total Assets
	LV2: Long-term Debt Ratio	Long-term Debt / Total Assets
	LV3: Interest Coverage Ratio	Earnings Before Interest and Taxes / Interest Expense
Profitability Ratios	P1: Return on Assets	Net Profit / Total Assets
	P2: Return on Equity	Net Profit / Equity
	P3: Net Profit Margin	Net Profit / Net Sales

Abbreviations of the financial ratios that were used in the study are also shown in Table 3. Other than the financial ratios, annual change in share prices were also included in the analyses and the required data were collected from “Investing.com” [17] website. The letter ‘S’ is used to represent the annual change in share prices.

### 3. Results

In the analyses, firstly the values of the financial ratios and the annual changes in share prices were calculated. The calculated values of the financial ratios and the annual changes in share prices are presented in Table 4.

**Table 4.** The Values of the Financial Ratios and the Annual Changes in Share Prices.

Years	Firms	L1	L2	L3	T1	T2	T3	LV1	LV2	LV3	P1	P2	P3	S
2017	AVHOL	0.70	0.66	0.02	-20.04	1.59	0.64	0.80	0.41	0.15	0.00	0.01	0.00	-6.15
	DEVA	1.48	0.97	0.27	-2.11	2.74	0.64	0.52	0.28	-1.57	0.07	0.15	0.12	24.43
	ECILC	3.53	3.18	2.49	-5.00	4.10	0.16	0.09	0.04	-28.59	0.04	0.04	0.24	60.03
	LKMNH	1.00	0.85	0.17	-16.61	4.41	1.06	0.66	0.48	-0.59	0.03	0.08	0.03	58.68
	MPARK	0.92	0.88	0.27	-42.27	3.43	0.95	0.96	0.93	0.45	-0.05	-1.17	-0.05	No data
	RTALB	4.94	4.13	2.33	-3.81	2.67	0.61	0.14	0.01	-7.44	0.07	0.08	0.11	38.75
	SEYKM	8.02	5.85	3.46	-2.97	4.60	0.75	0.11	0.03	-13.10	0.08	0.09	0.11	342.72
	TRILC	0.86	0.74	0.12	-3.14	2.24	0.43	0.61	0.35	-0.99	0.07	0.17	0.16	No data
2018	AVHOL	2.09	1.84	0.42	-12.63	2.61	0.82	0.42	0.25	0.09	0.00	0.00	0.00	99.18
	DEVA	1.65	1.00	0.31	-1.38	2.58	0.62	0.55	0.31	-1.28	0.08	0.18	0.13	-24.89
	ECILC	3.77	3.41	2.64	-5.11	3.72	0.16	0.10	0.05	-16.67	0.05	0.06	0.35	-34.69
	LKMNH	0.71	0.56	0.10	-11.63	4.65	1.00	0.71	0.41	-0.71	0.03	0.10	0.03	-25.35
	MPARK	0.98	0.93	0.28	-32.97	3.48	0.97	0.82	0.67	0.35	-0.04	-0.22	-0.04	No data
	RTALB	3.79	3.35	1.13	-4.54	2.45	0.31	0.14	0.01	2.91	0.01	0.01	0.03	-36.94
	SEYKM	5.69	3.64	1.51	-3.25	4.67	0.91	0.13	0.03	-11.45	0.10	0.12	0.11	-25.38
	TRILC	0.95	0.87	0.15	-5.29	1.77	0.51	0.67	0.29	-0.54	0.08	0.23	0.15	No data
2019	AVHOL	1.72	1.59	0.33	-8.50	1.00	0.22	0.40	0.27	-1.06	0.06	0.10	0.27	-36.63
	DEVA	1.85	1.21	0.49	-1.52	2.85	0.65	0.51	0.29	-1.89	0.13	0.28	0.21	173.28
	ECILC	2.79	2.55	1.89	-6.34	3.76	0.18	0.12	0.05	-2.49	0.03	0.04	0.19	52.95
	LKMNH	0.79	0.62	0.14	-11.82	4.88	0.90	0.75	0.58	-0.14	0.02	0.09	0.02	29.83
	MPARK	0.89	0.84	0.30	-31.52	3.73	0.95	0.94	0.88	-0.14	0.01	0.15	0.01	49.53
	RTALB	4.43	4.05	1.96	-4.21	2.37	0.17	0.12	0.04	-19.33	0.05	0.05	0.26	42.96
	SEYKM	3.03	2.07	1.20	-2.82	5.11	0.89	0.25	0.03	-20.52	0.13	0.17	0.15	76.34
	TRILC	0.89	0.81	0.12	-6.11	1.53	0.57	0.76	0.29	-0.48	0.05	0.21	0.09	No data
2020	AVHOL	0.98	0.87	0.23	-4.00	0.91	0.25	0.45	0.02	-0.16	0.00	0.00	0.00	289.61
	DEVA	1.97	1.39	0.69	-1.78	2.70	0.60	0.47	0.22	-5.59	0.21	0.40	0.35	169.10
	ECILC	3.06	2.70	2.16	-4.08	4.03	0.15	0.12	0.05	-7.98	0.05	0.06	0.35	98.11
	LKMNH	0.74	0.61	0.16	-12.53	4.94	0.81	0.67	0.47	-2.00	0.06	0.19	0.08	85.76
	MPARK	0.92	0.87	0.35	-26.95	3.47	0.88	0.92	0.84	-0.27	0.01	0.19	0.02	24.19
	RTALB	1.73	1.51	0.58	-6.65	3.12	0.90	0.35	0.04	-17.44	0.24	0.36	0.26	1201.14
	SEYKM	3.94	3.31	2.58	-3.68	5.11	0.74	0.33	0.16	-18.63	0.28	0.42	0.38	408.20
	TRILC	1.06	0.84	0.09	-2.12	1.39	0.50	0.63	0.22	-0.96	0.08	0.23	0.17	No data

After the calculation of the financial ratios and the annual changes in share prices, the Wilcoxon signed-rank tests were conducted for each crisis period by using the calculated values. The Wilcoxon signed-rank test results for 2018 economic crisis are shown in Table 5.

**Table 5.** The Results of the Wilcoxon Signed-Rank Tests for 2018 Economic Crisis.

Values	L1	L2	L3	T1	T2	T3	LV1	LV2	LV3	P1	P2	P3	S
N	8	8	8	8	8	8	8	8	8	8	8	8	6
Mean (2017)	2.68	2.16	1.14	-12.00	3.22	0.66	0.49	0.32	-6.46	0.04	-0.07	0.09	86.41
Std. Dev. (2017)	2.64	1.98	1.38	14.02	1.09	0.28	0.34	0.31	10.10	0.04	0.45	0.09	127.94
Mean (2018)	2.45	1.95	0.82	-9.60	3.24	0.66	0.44	0.25	-3.41	0.04	0.06	0.10	-8.01
Std. Dev. (2018)	1.78	1.31	0.89	10.22	1.06	0.32	0.29	0.22	6.83	0.05	0.14	0.12	52.77

Negative Ranks	3	3	3	4	4	3	2	4	3	1	2	2	5
Positive Ranks	5	5	5	4	4	4	5	2	5	5	6	3	1
Ties	0	0	0	0	0	1	1	2	0	2	0	3	0
Z	-0.140	-0.140	-0.140	-0.911	-0.280	-0.423	-0.169	-1.572	-1.680	-0.970	-1.404	-0.412	-1.153
p	0.889	0.889	0.889	0.362	0.779	0.672	0.866	0.116	0.093	0.332	0.160	0.680	0.249

The results of the analyses showed that the mean values for all liquidity ratios were lower in the crisis period (2.45 for L1; 1.95 for L2; 0.82 for L3) than before the crisis period (2.68 for L1; 2.16 for L2; 1.14 for L3) and there were no significant differences between the liquidity ratios' values before crisis and during crisis (Z: -0.140 and  $p>0.05$  for L1; Z: -0.140 and  $p>0.05$  for L2; Z: -0.140 and  $p>0.05$  for L3).

The mean values for two turnover ratios were higher in the crisis period (-9.60 for T1; 3.24 for T2) than before the crisis period (-12.00 for T1; 3.22 for T2) and were the same for one turnover ratio in the crisis period (0.66 for T3) and before the crisis period (0.66 for T3). There were no significant differences between the turnover ratios' values before crisis and during crisis (Z: -0.911 and  $p>0.05$  for T1; Z: -0.280 and  $p>0.05$  for T2; Z: -0.423 and  $p>0.05$  for T3).

The mean values for two leverage ratios were lower in the crisis period (0.44 for LV1; 0.25 for LV2) than before the crisis period (0.49 for LV1; 0.32 for LV2) and for one leverage ratio were higher in the crisis period (-3.41 for LV3) than before the crisis period (-6.46 for LV3). There were no significant differences between the leverage ratios' values before crisis and during crisis (Z: -0.169 and  $p>0.05$  for LV1; Z: -1.572 and  $p>0.05$  for LV2; Z: -1.680 and  $p>0.05$  for LV3).

The mean values for two profitability ratios were higher in the crisis period (0.06 for P2; 0.10 for P3) than before the crisis period (-0.07 for P2; 0.09 for P3) and were the same for one profitability ratio in the crisis period (0.04 for P1) and before the crisis period (0.04 for P1). There were no significant differences between the profitability ratios' values before crisis and during crisis (Z: -0.970 and  $p>0.05$  for P1; Z: -1.404 and  $p>0.05$  for P2; Z: -0.412 and  $p>0.05$  for P3).

The mean values for the annual change in share prices were lower in the crisis period (-8.01 for S) than before the crisis period (86.41 for S). There were no significant differences between the annual change in share prices' values before crisis and during crisis (Z: -1.153 and  $p>0.05$  for S).

According to the analyses results, there were no significant differences between any of the financial performance indicators' values in the year before crisis and the values in the year of crisis for the 2018 economic crisis. The Wilcoxon signed-rank test results for the COVID-19 pandemic are presented in Table 6.

**Table 6.** The Results of the Wilcoxon Signed-Rank Tests for the COVID-19 Pandemic.

Values	L1	L2	L3	T1	T2	T3	LV1	LV2	LV3	P1	P2	P3	S
N	8	8	8	8	8	8	8	8	8	8	8	8	7
Mean (2019)	2.05	1.72	0.80	-9.11	3.15	0.57	0.48	0.30	-5.76	0.06	0.14	0.15	55.45
Std. Dev. (2019)	1.29	1.15	0.77	9.62	1.49	0.34	0.31	0.30	8.79	0.05	0.08	0.10	62.79
Mean (2020)	1.80	1.51	0.86	-7.69	3.21	0.60	0.49	0.25	-6.63	0.12	0.23	0.20	325.16
Std. Dev. (2020)	1.15	0.98	0.96	8.52	1.52	0.28	0.25	0.28	7.56	0.11	0.15	0.16	408.11
Negative Ranks	3	3	3	3	4	6	4	5	5	1	1	1	2
Positive Ranks	5	5	5	5	3	2	3	1	3	6	7	6	5
Ties	0	0	0	0	1	0	1	2	0	1	0	1	0
Z	-0.280	-0.421	-0.631	-1.120	0.000	-1.193	-0.085	-1.156	-0.561	-1.690	-1.895	-1.183	-1.859
p	0.779	0.674	0.528	0.263	1.000	0.233	0.933	0.248	0.575	0.091	0.058	0.237	0.063

The results of the analyses showed that the mean values for two liquidity ratios were lower in the crisis period (1.80 for L1; 1.51 for L2) than before the crisis period (2.05 for L1; 1.72 for L2) and for one liquidity ratio were higher in the crisis period (0.86 for L3) than before the crisis period (0.80 for L3). There were no significant differences between the liquidity ratios' values before crisis and during crisis (Z: -0.280 and  $p>0.05$  for L1; Z: -0.421 and  $p>0.05$  for L2; Z: -0.631 and  $p>0.05$  for L3).

The mean values for all turnover ratios were higher in the crisis period (-7.69 for T1; 3.21 for T2; 0.60 for T3) than before the crisis period (-9.11 for T1; 3.15 for T2; 0.57 for T3) and there were no significant differences between the turnover ratios' values before crisis and during crisis (Z: -1.120 and  $p>0.05$  for T1; Z: -0.000 and  $p>0.05$  for T2; Z: -1.193 and  $p>0.05$  for T3).

The mean values for two leverage ratios were lower in the crisis period (0.25 for LV2; -6.63 for LV3) than before the crisis period (0.30 for LV2; -5.76 for LV3) and for one leverage ratio were higher in the crisis period (0.49 for LV1) than before the crisis period (0.48 for LV1). There were no significant differences between the leverage ratios' values before crisis and during crisis (Z: -0.085 and  $p>0.05$  for LV1; Z: -1.156 and  $p>0.05$  for LV2; Z: -0.561 and  $p>0.05$  for LV3).

The mean values for all profitability ratios were higher in the crisis period (0.12 for P1; 0.23 for P2; 0.20 for P3) than before the crisis period (0.06 for P1; 0.14 for P2; 0.15 for P3) and there were no significant differences between the profitability ratios' values before crisis and during crisis (Z: -1.690 and  $p>0.05$  for P1; Z: -1.895 and  $p>0.05$  for P2; Z: -1.183 and  $p>0.05$  for P3).

The mean values for the annual change in share prices were higher in the crisis period (325.16 for S) than before the crisis period (55.45 for S). There were no significant differences between the annual change in share prices' values before crisis and during crisis (Z: -1.859 and  $p>0.05$  for S).

According to the analyses results, there were no significant differences between any of the financial performance indicators' values in the year before crisis and the values in the year of crisis for the COVID-19 pandemic.

#### 4. Discussion

We statistically analyzed the financial performances of the publicly held healthcare companies in crisis periods in the last 10 years in Türkiye. The results of the Wilcoxon signed-rank tests showed that the financial performances of the publicly held healthcare companies during the crisis periods were not significantly different from their financial performances before the crisis periods.

Even though there are studies that showed that the healthcare sector in Türkiye was negatively affected by the COVID-19 pandemic [4,5], we found that the publicly held healthcare companies in Türkiye were able to keep their liquidity, turnover, leverage and profitability ratios and thus their financial performances steady. The findings of the study are concordant with Öncü et al.'s [6] findings. Moreover, despite the fact that the unemployment rates were risen during the 2018 economic crisis [8], the publicly held healthcare companies' financial performances were still strong according to the results of our analyses.

In conclusion, our findings suggest that the financial performances of the publicly held healthcare companies in crisis periods in the last 10 years in Türkiye was strong. However, an important thing to note is that the strong financial performances of the publicly held healthcare companies in crisis periods in the last 10 years, does not guarantee that their financial performances will also be strong in possible future crisis periods. Therefore, policy makers and company managers still need to be cautious, and the companies should try to operate as if a new crisis period could start any moment.

The main limitation of the study was the absence of the required data for 2023 earthquakes analysis. Similar analyses can be conducted in the coming years when the required data for 2023 earthquakes analysis will be available. Similar analyses can also be conducted in other countries and with a longer time period. Moreover, different financial ratios and statistical methods can be used in the analyses.

**Author Contributions:** Conceptualization, D.T., T.T., R.L.B. and M.Z.Y.; methodology, D.T., T.T., R.L.B. and M.Z.Y.; software, D.T., T.T., R.L.B. and M.Z.Y.; validation, D.T., T.T., R.L.B. and M.Z.Y.; formal analysis, D.T., T.T., R.L.B. and M.Z.Y.; investigation, D.T., T.T., R.L.B. and M.Z.Y.; resources, D.T., T.T., R.L.B. and M.Z.Y.; data curation, D.T., T.T., R.L.B. and M.Z.Y.; writing—original draft preparation, D.T., T.T., R.L.B. and M.Z.Y.; writing—review and editing, D.T., T.T., R.L.B. and M.Z.Y.; visualization, D.T., T.T., R.L.B. and M.Z.Y.; supervision, D.T., T.T., R.L.B. and M.Z.Y.; project administration, D.T., T.T., R.L.B. and M.Z.Y. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** Publicly available datasets were analyzed in the study. The data for financial ratios can be found in section “Investor Relations” at the publicly held healthcare companies’ own websites and the data for the annual changes in share prices can be found at <https://www.investing.com>.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. WHO Coronavirus (COVID-19) Dashboard. Available online: <https://covid19.who.int> (accessed on 14 May 2023).
2. Shreffler, J.; Petrey, J.; Huecker, M. The Impact of COVID-19 on Healthcare Worker Wellness: A Scoping Review. *Western Journal of Emergency Medicine* **2020**, *21*, 1059-1066.
3. Khan, A.; Khan, N.; Shafiq, M. The Economic Impact of COVID-19 from a Global Perspective. *Contemporary Economics* **2021**, *15*, 64-75.
4. Tengilimoğlu, D.; Zekioğlu, A.; Tosun, N.; Işık, O.; Tengilimoğlu, O. Impacts of COVID-19 pandemic period on depression, anxiety and stress levels of the healthcare employees in Turkey. *Legal Medicine* **2021**, *48*, 1-8.
5. Hacimusalar, Y.; Kahve, A.C.; Yasar, A.B.; Aydın, M.S. Anxiety and hopelessness levels in COVID-19 pandemic: A comparative study of healthcare professionals and other community sample in Turkey. *Journal of Psychiatric Research* **2020**, *129*, 181-188.
6. Öncü, M.A.; Yıldırım, S.; Bostancı, S.; Erdoğan, F. The Effect of COVID-19 Pandemic on Health Management and Health Services: A Case of Turkey. *Duzce Medical Journal* **2021**, *23*, 61-70.
7. Tülüce, N.S.; Şafak, K. In the Shadow of Economic Crises: Examining the Crises of Health Sector. *Journal of Social Research and Management* **2022**, 1-19.
8. Akcay, Ü.; Güngen, A.R. The Making of Turkey’s 2018-2019 Economic Crisis. *Institute for International Political Economy (IPE)* **2019**, Working Paper No. 120, 1-19.
9. 2023 Kahramanmaraş ve Hatay Depremleri Raporu. Available online: <https://www.sbb.gov.tr/wp-content/uploads/2023/03/2023-Kahramanmaraş-ve-Hatay-Depremleri-Raporu.pdf> (accessed on 14 May 2023).
10. Mavrouli, M.; Mavroulis, S.; Lekkas, E.; Tsakris, A. An Emerging Health Crisis in Turkey and Syria after the Earthquake Disaster on 6 February 2023: Risk Factors, Prevention and Management of Infectious Diseases. *Healthcare* **2023**, *11*, 1-11.
11. Gürbüz, S.; Şahin, F. *Sosyal Bilimlerde Araştırma Yöntemleri: Felsefe – Yöntem - Analiz*; Seçkin: Ankara, Türkiye, 2018.
12. Bordens, K.S.; Abbott, B.B. *Research Design and Methods: A Process Approach*; McGraw Hill: New York, USA, 2018.
13. Turkish Stock Market. Available online: <https://www.tradingview.com/markets/stocks-turkey/sectorandindustry-sector> (accessed on 26 April 2023).
14. Tengilimoğlu, D.; Işık, O.; Akbolat, M. *Sağlık İşletmeleri Yönetimi*; Nobel: Ankara, Türkiye, 2021.
15. Brealey, R.A.; Myers, S.C.; Allen, F. *Principles of Corporate Finance*; McGraw Hill: New York, USA, 2020.
16. Keown, A.J.; Martin, J.D.; Petty, J.W. *Foundations of Finance: The Logic and Practice of Financial Management*; Pearson: Harlow, UK, 2014.
17. Investing.com. Available online: <https://www.investing.com> (accessed on 26 April 2023).

**Disclaimer/Publisher’s Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.