


**COVID-19 PANDEMIC AND FINANCIAL PERFORMANCE**

**Abdullah Mohammad Al-Zoubi<sup>A</sup>**



ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 31 January 2023</p> <p><b>Accepted</b> 10 April 2023</p>	<p><b>Purpose:</b> This study aims to illustrate the impact of the corona pandemic (COVID-19) on the financial performance in industrial companies in Jordan.</p> <p><b>Theoretical framework:</b> This study depend on review of literature review to determine variables of study and its relationship, has been determined all variables: corona pandemic (COVID-19) is independent variable, dependent variables was divide into three axes: profitability, liquidity and debts each of them was measure by some financial ratios that its will show later in hypotheses.</p> <p><b>Design/Methodology/Approach:</b> The study was applied on 16 industrial companies in Jordan, their quarterly financial statements were collected from Amman’s stock exchange from the first quarter of the year 2017 to the end of the third quarter of the year 2021.</p> <p><b>Finding:</b> It concluded to the fact that there is a negative impact on profitability reflected by the corona pandemic (COVID-19), and another positive impact on debts, and has no impact on the liquidity.</p> <p><b>Research, Practical &amp; Social implications:</b> The implication drawn from this study is that it show to researchers and interested of investment, that causes it corona pandemic (COVID-19) impact on performance of companies listed on important sector in Jordan is industrial Sector, which is represented 60% from all investments.</p> <p><b>Originality/value:</b> The value of the study's originality in the past two years is the world was invaded by a new disease called Corona (COVID-19), and the disease enforced some changes on companies activities and performances it due to the closure works of companies.</p>
<p><b>Keywords:</b></p> <p>COVID-19 Pandemic; Financial Performance; Profitability; Liquidity and Debts.</p> <div data-bbox="172 981 480 1227" style="text-align: center;">  </div>	<p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i4.825">https://doi.org/10.26668/businessreview/2023.v8i4.825</a></p>

**PANDEMIA DE COVID-19 E DESEMPENHO FINANCEIRO**

**RESUMO**

**Objetivo:** Este estudo tem como objetivo ilustrar o impacto da pandemia de corona (COVID-19) no desempenho financeiro de empresas industriais na Jordânia.

**Referencial teórico:** Este estudo depende da revisão da literatura para determinar as variáveis de estudo e sua relação, foram determinadas todas as variáveis: pandemia de corona (COVID-19) é variável independente, variáveis dependentes foram divididas em três eixos: lucratividade, liquidez e dívidas cada um deles foi medido por alguns índices financeiros que serão mostrados posteriormente em hipóteses.

**Desenho/Metodologia/Abordagem:** O estudo foi aplicado em 16 empresas industriais na Jordânia, suas demonstrações financeiras trimestrais foram coletadas da bolsa de valores de Amã desde o primeiro trimestre do ano de 2017 até o final do terceiro trimestre do ano de 2021.

**Constatação:** Concluiu-se que há um impacto negativo na rentabilidade refletido pela pandemia do corona (COVID-19), e outro impacto positivo nas dívidas, não tendo impacto na liquidez.

<sup>A</sup> Associate Professor, Al al-bayt University, School of Business, Accounting Department. Al-Mafraq, Jordânia.  
E-mail: [abdalzoubi@aabu.edu.jo](mailto:abdalzoubi@aabu.edu.jo) ORCID: <https://orcid.org/0000-0002-9523-4525>

**Implicações de pesquisa, práticas e sociais:** A implicação extraída deste estudo é que ele mostra aos pesquisadores e interessados em investimentos, que causa o impacto da pandemia de corona (COVID-19) no desempenho de empresas listadas em um setor importante na Jordânia é o setor industrial, que representa 60% de todos os investimentos.

**Originalidade/valor:** O valor da originalidade do estudo nos últimos dois anos é que o mundo foi invadido por uma nova doença chamada Corona (COVID-19), e a doença impôs algumas mudanças nas atividades e atuações das empresas devido ao fechamento de obras de empresas.

**Palavras-chave:** Pandemia de COVID-19, Desempenho Financeiro, Rentabilidade, Liquidez e Dívidas.

## PANDEMIA DE COVID-19 Y DESEMPEÑO FINANCIERO

### RESUMEN

**Propósito:** Este estudio tiene como objetivo ilustrar el impacto de la pandemia de la corona (COVID-19) en el desempeño financiero de las empresas industriales en Jordania.

**Marco teórico:** este estudio depende de la revisión de la literatura para determinar las variables de estudio y su relación, se ha determinado todas las variables: la pandemia de corona (COVID-19) es una variable independiente, las variables dependientes se dividieron en tres ejes: rentabilidad, liquidez y deudas cada uno de ellos fue medido por unos ratios financieros que se mostrarán más adelante en hipótesis.

**Diseño/Metodología/Enfoque:** El estudio se aplicó en 16 empresas industriales en Jordania, sus estados financieros trimestrales se recopilaron de la bolsa de valores de Amman desde el primer trimestre del año 2017 hasta el final del tercer trimestre del año 2021.

**Hallazgo:** Concluyó que hay un impacto negativo en la rentabilidad reflejado por la pandemia de corona (COVID-19), y otro impacto positivo en las deudas, y no tiene impacto en la liquidez.

**Implicaciones de investigación, prácticas y sociales:** la implicación extraída de este estudio es que muestra a los investigadores e interesados en la inversión, que causa el impacto de la pandemia de corona (COVID-19) en el rendimiento de las empresas que cotizan en un sector importante en Jordania es el sector industrial, que está representado el 60% de todas las inversiones.

**Originalidad/valor:** El valor de la originalidad del estudio en los últimos dos años es que el mundo fue invadido por una nueva enfermedad llamada Corona (COVID-19), y la enfermedad impuso algunos cambios en las actividades y actuaciones de las empresas debido al cierre de obras de compañías.

**Palabras clave:** Pandemia COVID-19, Desempeño Financiero, Rentabilidad, Liquidez y Endeudamiento.

### INTRODUCTION

In December 2019 many patients of pneumonia with an unknown cause were related to a seafood market located in the Chinese city of Wuhan, where an unknown previously virus was discovered called beta corona virus and by using the unbiased sequencing for some Pneumonia patients samples (Zhu et. al., 2020), there was discovered the first corona case (Li et. al., 2020), after that the world health organization announced the CORONA VIRUS disease (Qiu et. Al.,2020) and defined it as a contagious disease caused by a recently discovered virus called Corona whereas most infected people suffer from respiratory disease varies from being minor and moderate, the patients recover without using a specific medication ( World Health Organization, 2021 ) this disease has spread among the Chinese cities and moved rapidly to other countries around the world (Qiu et. Al., 2020).

In the beginnings of the pandemic Covid-19 some concerns raised about social and economic future crisis it may cause (Rinaldi et. al., 2020), as the pandemic became global it

caused a significant change on the global economy (He et. al., 2020), and caused has disrupted the social, economic and political systems and lives throughout the world (Syafitri et. al., 2022), it also caused a worldwide business and commerce disruption generally and specifically it affected the economic performance expressed by the financial performance in companies , for example measured by the return on equity and return on assets (Achim et. Al., 2021), the financial performance is considered as one of the factors that shows the companies effectiveness and efficiency in achieving goals by measuring its ability to specify the suitable goals with the suitable tools to achieve it (Karamoy and Tulung, 2020), and as a measuring tool to determine the implementation of financial resources of the company (Ichsan et. al., 2021) to reach the best exports and achieve the best result.

As a result for the impact caused by the corona pandemic on companies in particular , economy in general and the importance of the financial performance as a tool to measure the efficiency and effectiveness of companies the researcher was interested in combining these two variables ( corona pandemic and financial performance ) to study the impact that the pandemic may reflect on the financial performance whether it was positive or negative , due to the importance of the industrial Sector in Jordan , which represents 60% of the total investments that take advantage of the investment law and its major contribution in the strength of the Jordanian Dinar , exchange stability and bracing Jordan's financial stability (Investment Commission 2021) it was chosen to be the study community as illustrated in the methodology afterwards , based on the previous the aim of study is to determine the impact of Corona Pandemic (COVID-19) on the financial performance for industrial companies .

## LITERATURE REVIEWS

Analyzing the previous studies contributes in two important aspects of the study represented by the independent and dependent variables, the first aspect: reviewing the corona pandemic impact on economy, finance and some accounting works, the second aspect: reviewing some financial performance metrics which benefits the study and helps in classifying it to contribute in forming the study's hypothesizes

Heald and Hodges (2020) study was established in the united kingdom in particular and it showed that the major impact of the covid 19 pandemic will be on the public finance between 2020 and 2021 , with a record deficit of budget that could reach 322 billion pound and an increase in the public dept to reach 2205 billion pound, Al-Masoodi et. al, (2020) study showed that the pandemic led to a case of instability in the financial markets also a negative economic impact on countries , it made it very difficult to predict the financial solutions on long terms ,

in result countries had to establish some new economic and financial strategies in the near future to deal with the current and future circumstances , Aguguom et. al., (2020) study showed that the corona pandemic covid-19 has a huge impact on the countries' economies and may lead to a global economic recession, facing a financial crisis, with a possibility of facing a drain in the external economies, the study Insawan et. al. (2022) reported that COVID-19 is a major event that has an impact on the activities of the global economy in general or a country in particular, Jenkins and Smith (2020) study revealed that covid-19 impacted a significant damage on the economy and focused sharply on how to design systems, mainly developed to target the economical risks on the markets profit, Gennaro et. al. (2020) study added that the spread of the new corona virus is considered as an unprecedented disaster regarding health , social and economy aspects , Ardiny (2020) study mentioned that COVID-19 pandemic caused many challenges that impact the financial statements of the period ended in 31/12/2020 and difficulties in the cash flow, insurance loses , due to the importance of the financial statements for the accountants and the significant impact of the pandemic on it , it will cause a major influence in the accountant specialists working process which is considered as a very important part of the economy and finance business (Papadopoulou and Papadopoulou, 2020)

Regarding the studies relating to the financial performance and to elaborate its classifications and metrics Obeidat et. al. (2021) study indicated that one of the financial performance measuring tools is the Financial Leverage which represents the debt ratio calculated by dividing the liabilities on the assets, Noja et. al. (2021) study showed a multiple number of metrics to measure the financial performance such as return on assets, and return on equity, Karamoy and Tulung (2020) study indicated that in order for companies to be able to attract the investors it must show its best performance using the financial data, the performance is measured by the financial ratios such as current ratios, debt equity ratio and return on assets, Akande et. al. (2021) study pointed out that profitability can be considered as one of the evaluation tools using the financial indications such as the return of assets, the return on equity and the profit margin, Forte et. al. ( 2019 ) study showed that the return on assets and the return on equity are one of the financial performance dimensions , Naz et. al. (2016) study used the following financial ratios as measuring tools for the financial performance: liquidity ratio, current ratio, quick ratio. cash ratio, leverage ratio , debt ratio , debt equity ratio , profitability ratio, net profit ratio, and operating profit margin, Kyere and ausloos (2020) study indicated that the financial ratios are one of the financial performance measures represented in the quick ratio and the return on assets , finally Fatihudin et. al. (2018) study showed that there are several ratios to measure the financial performance of companies like: **First:** liquidity ratio which is

consisted of the quick ratio , current ratio and cash ratio, **Second:** profitability ratio consisted of the return on assets and the return on investment, **Third:** debt ratio such as debt equity ratio.

By reviewing the previous studies, the theoretical indigenization illustrates the connection between the corona pandemic as an independent variable and the financial performance as a dependent variable, which is considered as a tool to measure the economic and financial part of companies, it also shows the mechanism of dividing the financial performance into three groups and they are:

- A- Profitability ratio:** measured by the return on investment, return on assets, operating profit margin, and finally on the net profit margin.
- B- Liquidity ratio:** measured by the current ratio, quick ratio and finally the cash ratio.
- C- Debt ratio:** measured by the debt ratio, debt equity ratio and finally on the long-term debt to long-term debt and owners' equity.

Many other controlling variables were taken in consideration represented by the company's sector, the company's capital and the size of the company in order to control the other variables without any change in the results, and measure the impact of the independent variable on the dependent variable accurately.

## METHODOLOGY AND HYPOTHESIS

The shareholders industrial companies listed in Amman's stock exchange were taken as a study community and they are (33) companies divided into (8) sectors, were taken (3) sectors including (16) company as a study sample, percentage nearly (48.5%) of the study community, Medical and pharmaceutical, chemical, food and beverage industries are considered as one of the main sectors impacted for containing medications , sanitizers and nutrition , the reason why companies listed in the Amman's stock exchange were chosen is the fact the Amman's stock exchange is considered as a formal authority that enables the researcher to get official reliable and sequenced over the years data and information without any interruption.

In order to formulate the study hypothesis the previously mentioned studies were taken in consideration to make a connection between the study's variables (Corona Pandemic and the financial performance) and divide the financial performance into three aspects (profitability, liquidity, debt) the study's hypothesis were formulated relying on the financial performance three aspects as follows :

**1- H0-1 : Corona Pandemic (COVID-19) has no impact on the profitability for the shareholders industrial companies listed in the Amman's stock exchange branching the following :**

- a. H0-1.1 : Corona Pandemic (COVID-19) has no impact on the return on investment for the shareholders industrial companies listed in the Amman's stock exchange
- b. H0-1.2 : Corona Pandemic (COVID-19) has no impact on the return on assets for the shareholders industrial companies listed in the Amman's stock exchange
- c. H0-1.3 : Corona Pandemic (COVID-19) has no impact on the operating profit margin for the shareholders industrial companies listed in the Amman's stock exchange
- d. H0-1.4 : Corona Pandemic (COVID-19) has no impact on the net profit margin for the shareholders industrial companies listed in the Amman's stock exchange

**2- H0-2 : Corona Pandemic (COVID-19) has no impact on the liquidity for the shareholders industrial companies listed in the Amman's stock exchange branching the following:**

- a. H0-2.1 : Corona Pandemic (COVID-19) has no impact on the current ratio for the shareholders industrial companies listed in the Amman's stock exchange
- b. H0-2.2 : Corona Pandemic (COVID-19) has no impact on the quick ratio for the shareholders industrial companies listed in the Amman's stock exchange
- c. H0-2.3 : Corona Pandemic (COVID-19) has no impact on the cash ratio for the shareholders industrial companies listed in the Amman's stock exchange

**3- H0-3: Corona Pandemic (COVID-19) has no impact on the debts for the shareholders industrial companies listed in the Amman's stock exchange branching the following:**

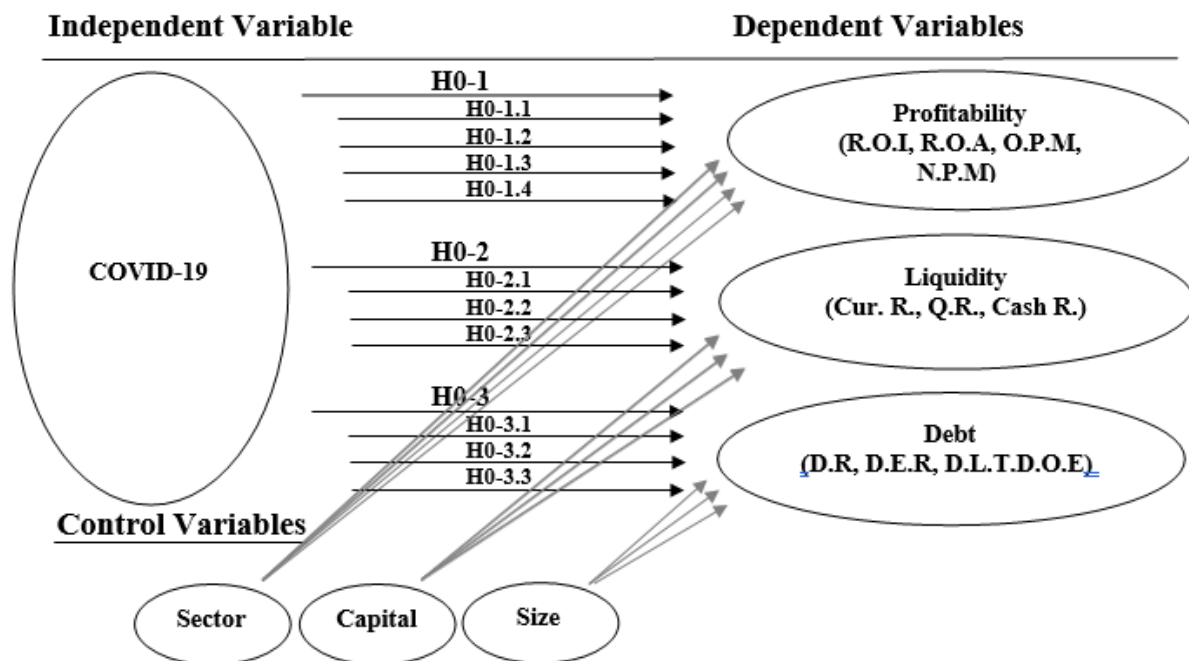
- a. H0-3.1 : Corona Pandemic (COVID-19) has no impact on the debt ratio for the shareholders industrial companies listed in the Amman's stock exchange
- b. H0-3.2 : Corona Pandemic (COVID-19) has no impact on the debt equity ratio for the shareholders industrial companies listed in the Amman's stock exchange
- c. H0-3.3 : Corona Pandemic (COVID-19) has no impact on the long term debt to the long term debt and owners equity for the shareholders industrial companies listed in the Amman's stock exchange

In order to be able to test the hypothesis the financial statements for the industrial companies were collected from Amman's stock exchange for two periods: **First period:** quarterly financial statements for the period nearly three years before the corona pandemic



starting from 2017 extending to 2019, **Second period:** the quarterly financial statements for the period extending through out the corona pandemic from 2020 to the end of the third quarter of the year 2021, because it's the only available period while during the pandemic, to calculate the number of observations (16 company \* 19 quarter = 304 observation)

## STUDY MODEL



Source: Prepared by the author (2022)

## STATISTICAL METHODS

Multiple statistical methods available in the SPSS program were used they are :

- a- **Descriptive statistics and frequencies:** this test was used to describe the samples specifications represented by the companies sectors, capitals , sizes measured by the sum of assets.
- b- **Kolmogorov-Smirnov test:** this test is used to determine whether the data is distributed normally or not, which indicates that in case the value exceeds 5% it means that the data follows the normal distribution (Barakat, 2013).
- c- **Skewness and Kurtosis tests:** this test was used to determine if the data in the normal distribution is flat or tapered, and if it has a symmetric distribution, left or right skewed distribution, this test is related with the normal distribution test.
- d- **Pearson correlation test:** this test was used to determine if there is a linear correlation or not between the independent variable and the control variables.

e- **Multiple linear regressions:** this test was used to measure the impact of the independent variable in the existence of control variables on the dependent variables individually.

## RESULTS AND DISCUSSION

This part of the study shows the analysis of the data collected from the Amman's stock exchange, we start by present the samples characteristics illustrated in the following table:

Table number (1) Descriptive statistics and frequencies for the study sample characteristics

CUMULATIVE PERCENTAGE	PERCENTAGE	FREQUENCY	STATEMENT
<b>SECTOR</b>			
%18.75	%18.75	3	Medical and pharmaceutical industries
%50.00	%31.25	5	Chemical industries
%100.00	%50.00	8	Food and beverage
	<b>%100.00</b>	<b>16</b>	<b>SUM</b>
<b>CAPITAL</b>			
%31.25	%31.25	5	Less than 8 million
%62.50	%31.25	5	From 8 million to less than 16
%100.00	%37.50	6	16 million and above
	<b>%100.00</b>	<b>16</b>	<b>SUM</b>
<b>SIZE</b>			
%37.50	%37.50	6	Less than 20 million
%75.00	%37.50	6	From 20 million to less than 40
%100.00	%25.00	4	40 million and above
	<b>%100.00</b>	<b>16</b>	<b>SUM</b>

Source: Prepared by the author (2022)

This schedule shows that the study sample is distributed logically relatively between its characteristics and the company's sector, capital and size, this gives the results a credibility because the data distributes between the features without any category overcoming another and make the data bias to a certain category or a certain feature.

### Normal Distribution Test

Table number (2) Kolmogorov-Simirnové and Skewness and Kurtosis

Var.	Kolmogorov-Simirnové	Skewness	Kurtosis	Var.	Kolmogorov-Simirnové	Skewness	Kurtosis
Sector	0.200	0.390	-0.571	N.P.M.	0.125	0.244	-0.357
Capital	0.263	0.513	-0.750	C.R.	0.279	0.543	-0.795
Size	0.266	0.519	-0.759	Q.R.	0.252	0.492	-0.720
Covid-19	0.116	0.226	-0.331	Cash R.	0.211	0.411	-0.602
R.O.I.	0.115	0.224	-0.328	D.R.	0.305	0.594	-0.870
R.O.A.	0.267	0.520	-0.761	D.E.R	0.273	0.532	-0.779
O.P.M.	0.146	0.284	-0.416				

Source: Prepared by the author (2022)



The previous table indicates that the data is distributed normally because the Kolmogorov-Smirnov Sig. value came higher than 5% for all of the variables whether they were dependent or independent or controlling, the skewness and Kurtosis tests confirm this result as they indicate that the data is normally distributed if their values are closer to zero, and their values are between (+1,-1) (Plichta and Kelvin, 2013) which is shown in the table above (all values between -1 and +1), but the data is skewed to the right because the skewness value is positive, which means that the mean is more than the median, the data shape is also flat because it has a negative value.

### Linear Correlation Test

Table number (3) Pearson test of linear correlation

Var.		Sector	Capital	Size	Covid-19
<b>Sector</b>	<b>Pearson Correlation</b>	1	0.068	0.039	0.020
	<b>Sig.</b>		0.420	0.482	0.440
	<b>N</b>	304	304	304	304
<b>Capital</b>	<b>Pearson Correlation</b>	0.068	1	0.041	0.070
	<b>Sig.</b>	0.420		0.000	0.435
	<b>N</b>	304	304	304	304
<b>Size</b>	<b>Pearson Correlation</b>	0.039	0.041	1	0.000
	<b>Sig.</b>	0.482	0.000		0.395
	<b>N</b>	304	304	304	304
<b>Covid-19</b>	<b>Pearson Correlation</b>	0.020	0.070	0.000	1
	<b>Sig.</b>	0.440	0.435	0.395	
	<b>N</b>	304	304	304	304

Source: Prepared by the author (2022)

This test is used to determine whether if there is a linear correlation or not between the independent variable and the controlling variables. which indicates that if the value of correlation exceeds 70% that means there is an intersection between the variables which makes the regression coefficient evaluation unreliable (Sekaran and Bougie, 2016) we realize from the previous table that there is no multicollinearity between the independent and controlling variables, for the fact that the Pearson Correlation highest value came to be 7% and it is considered low if compared with the mentioned percentage above, which means that the regression analysis is reliable.

We can also assure that there is no multicollinearity by the Tolerance values which didn't come less than 10% and the Variance Inflation Factor (VIF) values which didn't exceed 10 (Sekaran and Bougie, 2016) as in the following table.

Table number (4) Test Tolerance and Variance Inflation Factor

Model	Tolerance	VIF
Sector	0.973	1.028
Capital	0.371	2.694
Size	0.372	2.685

Covid-19

Source: Prepared by the author (2022)

### Testing Hypothesizes

The multiple linear regression was used to show the impact of COVID-19 on the dependent variables represented by the profitability, liquidity and debts which entirely represent the financial performance, by reflecting the independent variable COVID-19 with the presence of the controlling variables (sector, capital , size of the companies) on the profitability ratios numbering (4) ,the liquidity ratios numbering (3) , and the debts ratios numbering (3) as illustrated in the hypothesizes above .

#### Testing the First Main Hypothesis and it Branch Hypothesizes

**1. H0-1: Corona Pandemic (COVID-19) has no impact on the profitability for the shareholders industrial companies listed in the Amman’s stock exchange branching the following:**

- a. H0-1.1: Corona Pandemic (COVID-19) has no impact on the return on investment for the shareholders industrial companies listed in the Amman’s stock exchange.
- b. H0-1.2: Corona Pandemic (COVID-19) has no impact on the return on assets for the shareholders industrial companies listed in the Amman’s stock exchange.
- c. H0-1.3: Corona Pandemic (COVID-19) has no impact on the operating profit margin for the shareholders industrial companies listed in the Amman’s stock exchange.
- d. H0-1.4: Corona Pandemic (COVID-19) has no impact on the net profit margin for the shareholders industrial companies listed in the Amman’s stock exchange.

Table number (5) Testing the main first hypothesis and its main branch hypothesizes

Hypothesis	R	R Square	Adjusted R Square	Sig.	Result
H0-1.1 (Return on Investments)	0.428	0.184	0.160	0.000	Rejected
H0-1.2 (Return on Assets)	0.431	0.186	0.163	0.000	Rejected
H0-1.3 (Operating Profit Margin)	0.384	0.148	0.123	0.000	Rejected
H0-1.4 (Net Profit Margin)	0.361	0.130	0.105	0.001	Rejected
<b>H0-1 (Profitability)</b>	<b>Rejected</b>				

Source: Prepared by the authors (2022)

Table number (6) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.100	0.015		6.621	0.000
Sector	-0.006	0.005	-0.079	-1.026	0.307
Capital	-2.592	0.000	-0.390	-2.823	0.005
Size	2.262	0.000	0.120	0.868	0.387
Covid-19	-0.030	0.008	-0.282	-3.675	0.000

Dependent Variable: Return on Investments

Table number (7) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.084	0.012		6.714	0.000
Sector	-0.005	0.004	-0.087	-1.129	0.261
Capital	-2.192	0.000	-0.399	-2.893	0.004
Size	1.780	0.000	0.114	0.828	0.409
Covid-19	-0.024	0.007	-0.270	-3.525	0.001

Dependent Variable: Return on Assets

Table number (8) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.200	0.027		7.503	0.000
Sector	-0.028	0.009	-0.234	-2.975	0.003
Capital	-3.921	0.000	-0.343	-2.427	0.017
Size	1.895	0.000	0.058	0.413	0.680
Covid-19	-0.011	0.015	0.057	-1.729	0.007

Dependent Variable: Operating Profit Margin

Table number (9) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.163	0.024		6.840	0.000
Sector	-0.021	0.008	-0.201	-2.520	0.013
Capital	-3.084	0.000	-0.304	-2.128	0.035
Size	2.769	0.000	0.010	0.067	0.946
Covid-19	0.007	0.013	0.040	-2.511	0.010

Dependent Variable: Net Profit Margin

Source: Prepared by the author (2022)

The table number (5) above shows that the correlation coefficient (R) for the four connected sub-hypothesis (return on investment , return on assets , operational profit margin , net profit margin ) was respectively (0.428) (0.431) (0.384) (0.361) which means that the correlation rank between the variables is medium, and the adjusted R-square came respectively (0.160) (0.163) (0.123) (0.105) which means that the value of change that happens to the

dependent variables is (0.160) for the return on investment , (0.163) for the return on assets , (0.123) for the operating profit margin , (0.105) for the profit margin , this change is a result of the independent variable COVID-19 , more clearly the independent variable explains the values (0.160) (0.163) (0.123) (0.105) of change in the dependent variables respectively .

The tables above indicates that the value of (t) for the independent variable relating to the return on investment , return on assets , operating profit margin and the profit margin came as (-2.511) (-1.729 ) (-3.525) (-3.675) respectively , and the (SIG.) for all of the variables was less than 5% which means there is a negative impact influenced by the independent variable COVID-19 on the dependent variables shown above this indicates that the more the COVID-19 pandemic continues the less we get from the return on investment , assets , operating profit margin , and the net profit margin , based on what's been mentioned previously , the null sub-hypothesis are rejected and the following alternative sub-hypotheses are approved :

- a. Corona Pandemic (COVID-19) has an impact on the return on investment for the shareholders industrial companies listed in the Amman's stock exchange
- b. Corona Pandemic (COVID-19) has an impact on the return on assets for the shareholders industrial companies listed in the Amman's stock exchange
- c. Corona Pandemic (COVID-19) has an impact on the operating profit margin for the shareholders industrial companies listed in the Amman's stock exchange
- d. Corona Pandemic (COVID-19) has an impact on the net profit margin for the shareholders industrial companies listed in the Amman's stock exchange

Since all sub-hypotheses were rejected that means that the main hypothesis will also be rejected and replaced with the following alternative hypothesis:

**“The Corona Pandemic COVID-19 has an impact on the profitability of the shareholders industrial companies listed in the Amman's stock exchange”**

**Testing the second main hypothesis and its sub-hypotheses**

**2. H0-2 Corona Pandemic (COVID-19) has no impact on the liquidity for the shareholders industrial companies listed in the Amman's stock exchange branching the following:**

- a. H0-2.1: Corona Pandemic (COVID-19) has no impact on the current ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- b. H0-2.2: Corona Pandemic (COVID-19) has no impact on the quick ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- c. H0-2.3: Corona Pandemic (COVID-19) has no impact on the cash ratio for the shareholders industrial companies listed in the Amman's stock exchange.

Table number (10) Testing the second main hypothesis and its sub-hypotheses

Hypothesis	R	R Square	Adjusted R Square	Sig.	Result
H0-2.1 (CurrentRatio)	0.201	0.040	0.013	0.219	Accepted
H0-2.2 (QuickRatio)	0.201	0.040	0.013	0.217	Accepted
H0-2.3 (Cash Ratio)	0.199	0.040	0.012	0.226	Accepted
<b>H0-2 (Liquidity)</b>	<b>Accepted</b>				

Table number (11) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	-9.677	18.442		-0.525	0.601
Sector	9.320	6.553	0.119	1.422	0.157
Capital	-1.008	0.000	0.135-	-0.900	0.370
Size	1.473	0.000	0.070	0.464	0.644
Covid-19	17.476	10.078	0.144	1.734	0.085

Dependent Variable: Current Ratio

Table number (12) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	-4.923	11.403		-0.432	0.667
Sector	5.600	4.052	0.116	1.382	0.169
Capital	-6.543	0.000	-0.142	-0.945	0.346
Size	9.177	0.000	0.070	0.467	0.641
Covid-19	10.803	6.232	0.144	1.734	0.085

Dependent Variable: Quick Ratio  
 Source: Prepared by the authors (2022)

Table number (13) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	-2.039	4.356		-0.468	0.641
Sector	2.164	1.548	0.117	1.398	0.164
Capital	-2.585	0.000	-0.147	-0.978	0.330
Size	3.505	0.000	0.070	0.467	0.641
Covid-19	3.940	2.381	0.138	1.655	0.100

Dependent Variable: Cash Ratio  
 Source: Prepared by the author (2022)

Table number (10) above indicates the correlation coefficient for the three connected sub-hypotheses ( current ratio , quick ratio , cash ratio ) was respectively (0.201) (0.0201) (0.199) which means that the correlation rank between the variables was weak , and the Adjusted R-square was respectively (0.013) (0.013) (0.012) which means that the amount of change that happens for the dependent variables is (0.013) for the current ratio (0.013) for the quick ratio (0.012) for the cash ratio this change is a result of the independent variable Covid-

19, more clearly the independent variable explains the following values (0.012)(0.013)(0.013) which are the values of change for the dependent variables respectively.

The tables above also show that the value of (t) for the independent variable relating to the current ratio , quick ratio and cash ratio was (1.734)(1.734)(1.655) respectively , and the (SIG.) came for all of the variables more than 5% and since the value of SIG. is more than 5% this means there is no impact for the independent variable on the dependent variables above (current ratio , quick ratio , cash ratio ) , based on what's been mentioned previously the following null sub-hypothesizes are accepted:

- Corona Pandemic (COVID-19) has no impact on the current ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- Corona Pandemic (COVID-19) has no impact on the quick ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- Corona Pandemic (COVID-19) has no impact on the cash ratio for the shareholders industrial companies listed in the Amman's stock exchange.

Since all sub-hypothesizes were accepted this means that the main hypothesis is also accepted as it states the following:

**“The Corona pandemic COVID-19 has no impact on the liquidity of the shareholders industrial companies listed in the Amman's stock exchange “**

#### **Testing the third main hypothesis and its sub-hypothesizes**

### **3. H0-3: Corona Pandemic (COVID-19) has no impact on the debts for the shareholders industrial companies listed in the Amman's stock exchange branching the following:**

- a. H0-3.1: Corona Pandemic (COVID-19) has no impact on the debt ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- b. H0-3.2: Corona Pandemic (COVID-19) has no impact on the debt equity ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- c. H0-3.3: Corona Pandemic (COVID-19) has no impact on the long term debt to the long term debt and owners' equity for the shareholders industrial companies listed in the Amman's stock exchange.



Table number (14) Testing the third hypothesis and its sub-hypothesizes

Hypothesis	R	R Square	Adjusted R Square	Sig.	Result
H0-3.1 (DebtRatio)	0.567	0.322	0.302	0.000	<b>Rejected</b>
H0-3.2 (Debt EquityRatio)	0.638	0.407	0.390	0.000	<b>Rejected</b>
H0-3.3(Debt Long Term/(Debt Long Term+Owner Equity) Ratio)	0.658	0.433	0.416	0.000	<b>Rejected</b>
<b>H0-3 (Debt)</b>	<b>Rejected</b>				

Table number (15) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.216	0.054		4.013	0.000
Sector	0.018	0.019	0.066	0.937	0.350
Capital	-1.244	0.000	-0.479	-3.804	0.000
Size	6.592	0.000	0.896	7.104	0.000
Covid-19	0.023	0.029	0.055	1.790	0.031

Dependent Variable: Debt Ratio

Table number (16) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.210	0.201		1.046	0.298
Sector	0.067	0.071	0.061	0.932	0.353
Capital	-4.895	0.000	-0.473	-4.012	0.000
Size	2.844	0.000	0.969	8.214	0.000
Covid-19	0.125	0.110	0.074	1.139	0.006

Dependent Variable: Debt Equity Ratio

Table number (17) Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.096	0.042		-2.266	0.025
Sector	0.052	0.015	0.224	3.482	0.001
Capital	-8.350	0.000	-0.375	-3.253	0.001
Size	5.740	0.000	0.909	7.881	0.000
Covid-19	0.017	0.023	0.046	0.724	0.000

Dependent Variable: Debt Long Term/(Debt Long Term + Owner Equity) Ratio

Source: Prepared by the author (2022)

Table number (14) shows that the correlation coefficient (R) for the three connected sub-hypothesizes ( Debt ratio , Debt Equity Ratio , Debt long term/(debt long term + Owner Equity ) was (0.567) (0.638) (0.658) respectively which indicates that the correlation rank between the variables was medium , and the Adjusted R-square was (0.302) (0.390) (0.416) which means that the amount of change for the dependent variable is (0.302) for the debt ratio , (0.390) for the debt equity ratio, (0.416) for the debt long term/(debt long term + owner equity ) this change is a result of the independent variable Covid-19 , more clearly the independent

variable explains the following values of change in the dependent variables respectively (0.302)(0.390)(0.416) .

The table above also shows that the value of (t) for the independent variable relating to the debt ratio , debt equity ratio and the long term debt/(long term debt + owners equity ) was (1.790) (1.139) (0.724) respectively , and the (SIG.) came for all of the variables less than 5% which means there is a positive impact for the independent variable (COVID-19) on the dependent variables above , which indicates that the more the corona pandemic continuous the more the debt ratio, debt equity ratio and long term debt/(long term debt + owners equity) increases , based on what's been mentioned earlier , the null sub-hypothesizes are rejected and replaced with the following alternative sub-hypothesizes that states the following :

- Corona Pandemic (COVID-19) has impact on the debt ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- Corona Pandemic (COVID-19) has impact on the debt equity ratio for the shareholders industrial companies listed in the Amman's stock exchange.
- Corona Pandemic (COVID-19) has impact on the long term debt to the long term debt and owners' equity for the shareholders industrial companies listed in the Amman's stock exchange.

Since all of the sub-hypothesizes were rejected, this means that the main hypothesis will also be rejected and replaced with the following alternative hypothesis that states:

**“The corona Pandemic (COVID-19) has an impact of the debts of the shareholders industrial companies listed in the Amman's stock exchange“**

## CONCLUSION

After analyzing the data of the industrial companies listed in the Amman's stock exchange and using it to calculate the financial ratios related to the three aspects of financial performance (Profitability, liquidity, debts) and its related these aspects with the Corona Pandemic COVID-19 to clarify the impact of it on them, it showed the following:

- a. The Corona Pandemic COVID-19 has an impact on the financial performance regarding the profitability , this impact turned out to be a negative one , which indicates an inverse correlation between the Corona Pandemic COVID-19 and the following profitability ratios : The return on investment , return on assets , operating profit margin and the net profit margin, which means the more the Corona pandemic continuous the less the profitability ratios get, also The Corona Pandemic COVID-19 has an impact on the financial performance regarding the debts , this impact turned out to be positive

which indicates a direct correlation between the Corona Pandemic COVID-19 and the following debt ratios : debt ratio , debt equity ratio , long term debt/(long term debt + owners equity ) which means the more the corona pandemic continuous the more the debts get .

The previous results can be explained by the fact that the covid-19 pandemic enforced changes on the companies work represented by the working stoppage due to the preconditional procedures executed by the government such as the full , partial closures for some sectors, papadopoulou and papadopoulou (2020) study showed that the companies were forced to make changes in their working routine due to the emergency support precautions taken by the governments , as a result of these circumstances there was a decrease in the size of operations done by companies such as sales or any other operations that generates revenue , this led to a decrease in each of : the return on investment , return on assets , operational profit margin . net profit margin , because the revenue is a major and essential factor in calculating it , this result also approves with the Agugom et. Al.(2020) study that indicated that the corona pandemic COVID-19 had a huge impact on the countries' economies which led to an economic recession , this recession reflects on the decrease of the operations that generates revenue, Jenkins and Smith (2020) study showed that COVID-19 inflicted a damaged on the economy, this damage developed to target the profits.

The direct relation between the corona pandemic and the debts can be explained by the fact that the previously mentioned precaution procedures taken by the governments led to an accumulation in the financial obligations deserved by time such as rents interest and others . it also led to a decrease in the operations that generates revenue and income to match up with the companies expenses, which decreased the companies ability to pay its financial obligations and piled up debts , this result approves with the Heald And Hodges (2020) study that pointed out that the corona pandemic had an impact on debt represented by the increase In the net debt , it also approves with the Ardiny (2020) study that showed that the COVID-19 led to losses in the field of credit.

b. The Corona pandemic COVID-19 doesn't have an impact on the financial performance regarding the liquidity, this result can be explained by the fact that the previously mentioned full and partial closures due to the corona pandemic have stopped working in companies which led to a huge decrease in the size of the operations that generate cash, this also led to difficulties in generating new cash flows and kept the cash and assets associated with the liquidity nearly fixed in the companies, this result

approved with the Ardiny (2020) study that indicated that one of the challenges of the corona pandemic COVID-19 is the difficulties in creating a cash flow.

The limitations of the study are that the data available at the time of completion of the research related to the Corona pandemic (COVID-19) are the quarterly financial statements for the period extending from 2020 to the end of the third quarter of the year 2021 because it's the only available period while during the pandemic, and the number of companies that used in study are 16 out of 33 companies.

### RECOMMENDATION

Benefiting from the corona pandemic which forced its self on the world generally and the companies specifically by developing and improving the working mechanism and finding alternatives to keep on working in such circumstances or even worse, also to prevent or decrease the impact influenced by such circumstances on the companies return, piling debts, liquidity availability or others, and the study is also recommend to apply such as this study on other companies to determine the impact and comparison it with result this study.

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