

# DO THE RESERVES HELP THE FINANCIAL AND NON-FINANCIAL PERFORMANCE OF FIRMS DURING THE COVID-19 PANDEMIC?

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## Abstract

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The COVID-19 pandemic is one of the biggest challenges facing global economies in the twenty-first century. Although a few sectors have benefited from it, the majority of companies in all sectors have been affected. This research came to test the moderating effect of the reserves of the firms on the relationship between the COVID-19 pandemic and the performance of firms (financial and non-financial performance). The study adopted a questionnaire survey to collect the data. The questionnaires were sent online to the top management of the firms listed on the Amman Stock Exchange (ASE). The results showed that the pandemic of COVID-19 damages the financial and non-financial performance of the firms in all sectors listed on the Amman Stock Exchange in Jordan. But the reserves of the firms have a positive effect on reducing the negative effect of the COVID-19 pandemic on the firms' performance (financial and non-financial). Thus, this research recommends that the government must involve the firms listed on the Amman Stock Exchange in its palliatives programmes or stimulus packages to maintain the companies in the private sector in operation after the pandemic. In addition, the firms must take their reserves seriously and increase them.

**Keywords:** COVID-19, Jordanian Companies, Financial Performance, Non-Financial Performance, Pandemics, Coronavirus

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## 1. INTRODUCTION

The earth is now grappling with the truth of the pandemic of coronavirus (COVID-19), which has forced hundreds of firms around the world to suffer

massive economic damage. This failure is specifically due to the government's order to lockdown marketing activities (Al-Jalabneh & Safori, 2020; Tashanova et al., 2020). It is the same situation in Jordan even as the hubs of business are

shutting down because of the virus increase (Kim, Kim, Lee, & Tang, 2020). This shutdown includes limiting the movement of products and people, substantially affecting productivity and exports, and impeding the development of the private sector by undercutting investment due to the lack of confidence of investors in the market (Addi, Benksim, Amine, & Cherkaoui, 2020; Jung, Park, Hong, & Hyun, 2016).

Private companies will be impacted by financial and non-financial performances in the context of the government shutdown and a halt of the activities of the firms. A significant decrease in revenue would eventually lead to inadequate profits in the conduct of different activities, funding, and investment activities. The stock would become outdated which will result in a lack of commercial benefit (Shahwan, 2018). As a result of the reduction in sales, the financial consequences would eventually lead the private corporations to pack up and downsize, this will increase unemployment because the employees will lose their job. The current research aims to evaluate the effect of the pandemic of COVID-19 on the performance of the companies in Jordan and, based on the knowledge of the researchers, none of the studies in Jordan have focused on this issue yet. In addition, this study aims to discover empirically if the pandemic of COVID-19 affects the financial and non-financial performance of firms in Jordan, also the role of reserves of the firms in avoiding the impact of the pandemic on firms' performance.

The remainder of this paper is structured as follows. Section 2 reviews the relevant literature and hypotheses development. Section 3 includes the study model and research design and methodology that has been used. Section 4 discusses the results and findings. Section 5 presents the summary, conclusion, and recommendations, as well as the limitations and the recommendations for future studies.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1. The COVID-19 pandemic

In Wuhan city, China, in December 2019, a disease named "coronavirus" emerged, also known as "COVID-19" (McKibbin & Fernando, 2020). The COVID-19 pandemic has spread across the world. Along with the epidemic in China, the virus has registered new epicentres for its outbreak, with more than 100,000 confirmed cases in Germany, France, Italy, Spain, and the USA (Worldometers, n.d.). The World Health Organisation (WHO) has stated the danger posed by this virus to population safety as a universal pandemic and called on the world's health sectors and policymakers to take it seriously (McKibbin & Fernando, 2020). Infectious disease transmission is also on the rise, amid numerous attempts by citizens and governments of nations to control it, individual security initiatives, authorisation of the use of some medications which haven't been scientifically checked the effectiveness yet (Addi et al., 2020). There are concerns about the transmission of COVID-19, but Disease Control

Centers (DCC) and the majority of the medical researchers have mentioned that it is communicated by near interaction with an infected human (Bai et al., 2020; Kim et al., 2020). Also, the DCC and the medical researchers noted further that side effects of an individual's disease include shortness of breath, fever, dry cough, sore throat, also acute pneumonia, and death in the worse stage. The incubation for COVID-19 is about 2-14 days. Failure to recognize and manage all asymptomatic and symptomatic COVID-19 cases by mass and wide COVID-19 population screening or testing put humanity at risk (Addi et al., 2020). This will also have a massive effect on people's way of life, and on businesses around the world. In Jordan, the government and the private sector are doing the same thing. This has pushed the government to take steps against the virus, such as issuing an executive instruction to shut down the country's major economic hub.

### 2.2. Companies' performance and hypotheses of the study

The concept of the performance of companies relies on the economic perspective of increasing the income of the company and the view of the stakeholders to meet the needs of individuals or a group impacted by the actions of the same company (Aifuwa, 2020). Relying on this exhibition is the financial and non-financial performance of companies (Shahwan & Al-Trad, 2021).

Nnamani, Onyekwelu, and Ugwu (2017) state that financial performance is an objective indicator of how a company makes efficient and effective use of its assets to produce resources. The financial performance of the companies is categorized into subgroups for the profitability: market value performance, such as Tobin's Q, market value added (MVA), stock price volatility, dividend yield, change in stock price, earnings per share (EPS), tax, economic value added (EVA), return on investment (ROI), return on equity (ROE), and return on assets (ROA). Whilst the performance growth dimension is classified into net income growth, net revenue growth, asset growth, and market share growth (Santos & Brito, 2012).

The indicators of non-financial performance contain environmental performance, corporate governance, social performance, and employee performance. The current study employed the qualitative method to measure the financial performance and non-financial performance of the companies.

In Jordan, the pandemic of COVID-19 caused corporate owners and executives to need to organize and make quick decisions. A decision like reducing manufacturing volume and even temporarily closing down activities may have deep effects that cannot be foreseen. This will also affect the financial performance of the private sector as a result of the Jordanian government's lock-down policy or order. Empirical evidence has also suggested that epidemics are affecting businesses' financial results. Nine events on four epidemic infectious diseases during 2004-2016 were examined by Kim et al. (2020) when they examine the effect of macroscopic and

epidemic disease outbreaks on the financial performance of the restaurant sector. They concluded that the perceived effect of epidemic infectious diseases on the restaurant sector was verified and all three corporate features were listed as risk-mitigating elements. Likewise, Jung et al. (2016) found that outbreak pandemics induced substantial disruptions in aggregate customer purchasing with significant variation throughout categories when they examine the impact of the epidemic outbreak on consumer expenditures. Also, Jung et al. (2016) mentioned that to minimize the risk of contamination, consumers change their habits.

This research envisaged a significant decrease in bank deposits, cash flow, and investment, based on the analytical results. Thus, we formulate the following research hypothesis:

*H1: The financial performance of the companies is significantly and negatively affected by the COVID-19 pandemic.*

If the pandemic of COVID-19 begins to increase, companies are forced to lock down their activity and the staff becomes unemployed. It is also worth noting that private companies in Jordan are making a massive contribution to minimizing the unemployment level to a wide degree. Historically, problems, such as poverty and unemployment, have been perceived to be government and civil society responsibilities in general (Fagge & Zubairu, 2014). Private companies have taken on these responsibilities, even though they diverge from their revenue-making motivation and, to a large degree, are doing just fine in addressing the issue of unemployment in Jordan (Shahwan, 2020; Shahwan & Abdel-Hamid, 2020). Also, at the end of the epidemic, private companies will be forced to lay off a huge amount of employees to continue and stay financially viable, which might raise unemployment in the economy significantly. Thus, the next research hypothesis is:

*H2: The non-financial performance of the companies is significantly and negatively affected by the COVID-19 pandemic.*

The COVID-19 pandemic affected many economic sectors, and the necessary measures to

contain them led to a major economic downturn, financial instability for companies, and a significant decline in market liquidity, which contributed to sudden movements in asset prices, and the arrival of some companies to the stage of financial hardship, and an increase in the number of companies bankrupt. This affected the financial reserves and led to their restructuring, and many companies have used these reserves to raise their liquidity and increase their financial ability in the face of sharp fluctuations in the markets.

The reserves of companies are considered the last line of defense in cases of facing risks that companies may face. All companies in all sectors have been affected by this pandemic, and companies have been forced to use these reserves to pay their financial liabilities and the employees' salaries. In addition, all companies have to stand with the government and society to face this pandemic, which pushes the firms to use their financial reserves to minimize the liabilities faced by the firms because of the coronavirus pandemic.

*H3: The financial reserves have significantly and positively moderated the relationship between the COVID-19 pandemic and the financial performance of the companies.*

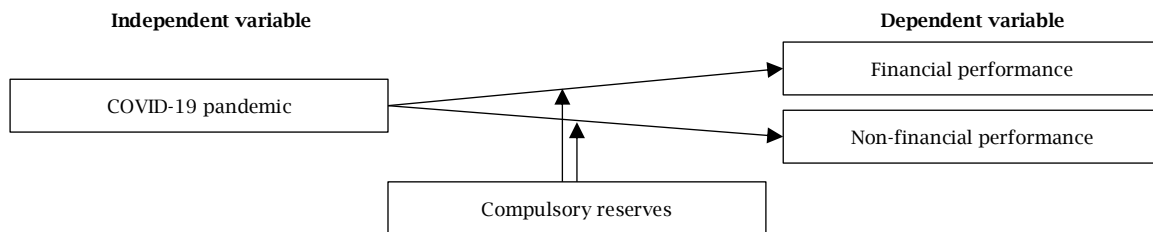
*H4: The non-financial reserves have significantly and positively moderated the relationship between the COVID-19 pandemic and the non-financial performance of the companies.*

### 3. METHODOLOGY

#### 3.1. Theoretical framework and study model

This research hinges on the rational choice theory. The rational choice theory is an economic concept that suggests that individuals generally make wise and sensible choices that allow them greater personal advantages or pleasure. The rational choice theory is based on the proposition that in each case, individuals seek to actively enhance their benefit and thus constantly seek to reduce their losses ("Rational choice theory", n.d.).

Figure 1. Study model



The model of the study is specified based on the theoretical framework as follows:

$$Compare = f(COVID\_19) \quad (1)$$

In econometric form:

$$ComPerf = \beta_0 + \beta_1 COVID\_19_i + \varepsilon_i \quad (2)$$

Furthermore, the model is specified considering the existence of the dependent variable, as:

For the financial performance:

$$FPerf = f(COVID\_19) \quad (3)$$

In econometric form:

$$Ferf = \beta_0 + \beta_1 COVID\_19_i + \varepsilon_i \quad (4)$$

For the non-financial performance:

$$NFPerf = f(COVID_{19}) \quad (5)$$

In econometric form:

$$NFPerf = \beta_0 + \beta_1 COVID_{19}_i + \varepsilon_i \quad (6)$$

For compulsory reserves as a moderator:

$$FPerf = \beta_0 + \beta_1 COVID_{19}_i * \beta_2 CR + \varepsilon_i \quad (7)$$

$$NFPerf = \beta_0 + \beta_1 COVID_{19}_i * \beta_2 CR + \varepsilon_i \quad (8)$$

where,

*ComPerf* = Company performance;  
*NFPerf* = Non-financial performance;  
*FPerf* = Financial performance;  
 $\beta_0$  = Constant;  
 $\beta_1$  = Explanatory variable coefficient;  
*i* = Cross sectional (firms);  
 $\varepsilon$  = Standard error.

### 3.2. Research design

The quantitative method applied in this research is to investigate the effect of the COVID-19 pandemic on the financial and non-financial performance of the companies in Jordan. By adopting the mono-method in building the survey of the questionnaire, which was distributed online. The reason why the questionnaire survey method was adopted for this research is to collect information from respondents under study (Aifuwa, Embele, & Saidu, 2018). The firms listed on the Amman Stock Exchange (ASE) in Jordan made the population of the research. The population target involved the top management of the companies listed on the ASE in all sectors (Financial, Services, and Industrial sectors). The companies in ASE were selected since it has the largest capital in Jordan with a large number of employees. Besides, the size of the sample was 123 based on the formula size of Sekaran and Bougie (2016), which mentioned that if the population was 180, the samples will be 123. Finally, the response rate for the survey was 92%.

### 3.3. Data collection and analysis method

The questionnaire (primary data) was developed and employed to obtain information from the respondents. Using the platform Google Docs to distribute online the questionnaire. Considering the present condition of the pandemic of COVID-19 in Jordan, the questionnaire enclosed questions regarding COVID-19, the financial performance of the firms, and some questions about the non-financial performance (such as social and environmental activities of the firms). Moreover, the questionnaire enclosed questions about the financial reserves of the firms. To examine the consistency of the internal construct of the items of the scale of the questionnaire, the Cronbach's alpha test was applied. Also, linear regression and multiple regression were used to test the hypotheses of the study, after changing the data from categorical to continuous. Version 21 of SPSS Statistics was employed to test the questionnaire.

## 4. RESULTS AND DISCUSSION OF THE FINDINGS

In this part of the study, a reliability test and linear regression test were examined and discussed.

**Table 1.** Reliability test result

No. of items	Cronbach's alpha
24	0.852

George and Mallery (2003) and Aifuwa and Okogie (2015) clarified the rules of thumb for the results of Cronbach's alpha test as follows:  $\alpha > 0.90$  — Excellent;  $\alpha > 0.80$  — Good;  $\alpha > 0.70$  — Acceptable;  $\alpha > 0.60$  — Questionable;  $\alpha > 0.50$  — Poor, and  $\alpha < 0.50$  — Unacceptable". The outcome of testing Cronbach's alpha for this study is 0.802, which is reliable. Thus, the result could be considered "Good. And internal consistency for the study indicates a high level.

#### Inferential statistics

The result for *H1* of the linear regression as presented in Table 2 shows that the relationship between the pandemic of coronavirus and the financial performance of the private sector in Jordan is significant and negative ( $t = -6.902$ ,  $\beta = -7.062$ ,  $p = 0.025$ ). This indicates that a unit increase in the COVID-19 pandemic will reduce the financial performance of the firms listed on the ASE by -7.062. The result, therefore, the hypothesis that the financial performance of the companies is significantly and negatively affected by the COVID-19 pandemic is accepted.

With respect to *H2*, the result of the linear regression, as presented in Table 2, shows that the relationship between the pandemic of coronavirus and the non-financial performance of the private sector in Jordan is significant and negative ( $t = -3.001$ ,  $\beta = -2.948$ ,  $p = 0.009$ ). This means that a unit increase in the COVID-19 pandemic will reduce the non-financial performance of the firms listed on the ASE by -2.948. Therefore, the hypothesis that the non-financial performance of the companies is significantly and negatively affected by the COVID-19 pandemic is accepted.

In relation to *H3*, the multiple regression, as presented in Table 2, shows that the compulsory reserves, as a moderating variable, founded to be significant with a positive impact, as it reduced the negative impact of the COVID-19 pandemic on the financial performance and on non-financial performance as well. The impact of the COVID-19 pandemic on the financial performance was  $t = -6.902$ ,  $\beta = -7.062$ ,  $p = 0.025$ , but the impact of the COVID-19 pandemic on the financial performance in *H4* decreased after using compulsory reserves as a moderating variable ( $t = -5.801$ ,  $\beta = -0.030$ ,  $p = 0.003$ ). Also, the compulsory reserves as a moderating variable founded to be significant with a positive impact, the impact of the COVID-19 pandemic on the non-financial performance was  $t = -3.001$ ,  $\beta = -2.948$ ,  $p = 0.009$ , but the impact of the COVID-19 pandemic on the non-financial performance decreased after using compulsory reserves as a moderating variable ( $t = -2.099$ ,  $\beta = -0.863$ ,  $p = 0.032$ ).

Table 2. Summary of the model

Model	Coefficients		t	Sig.
	Unstandardized coefficients			
	$\beta$	Std. Error		
H1: COVID_19 $\rightarrow$ FPerf	-7.062	1.101	-6.902	0.025
H2: COVID_19 $\rightarrow$ NFPerf	-2.948	1.204	-3.001	0.009
H3: COVID_19 * FPerf * $\beta$ 2CR	-0.030	1.303	-5.801	0.003
H4: COVID_19 * NFPerf * $\beta$ 2CR	-0.863	1.401	-2.099	0.032
(Constant)	2.826	1.234	2.428	0.022

Note: Dependent variable: FPerf; Adjusted R-squared = -0.33; Std. error of the estimate = 0.521;  $F(1,383) = 3.13$ . Dependent variable: NFPerf; Adjusted R-squared = -0.21; Std. error of the estimate = 0.234;  $F(1,383) = 2.15$ .

## 5. CONCLUSION

This research aimed to empirically test the impact of the pandemic of COVID-19 on the performance of the companies in Jordan. The negative effect of COVID-19 leads to a decline in revenues and losses for private sector companies, due to the coronavirus pandemic will also affect the level of corporate social responsibility activity, which will increase pressure on the government and its resources. The complete closure for long periods of most of the government and private sectors may lead to the depletion of financial reserves, and this may lead to inflation and an increase in prices.

The relationship between the COVID-19 pandemic and the financial performance still has a negative impact on the financial and non-financial performance of companies, even after using the compulsory reserve of the companies. But using the compulsory reserve of the companies has mitigated the damage to companies. This will push the companies to take into consideration the compulsory reserves. Also, to start a rise in

work to increase the voluntary and the compulsory reserves, and prepare provisions risk management plane.

Finally, the private sector is considered one of the most important pillars of the economic sustainability of any country. Thus, this research recommends that the government must involve the private sector in its palliatives programmes or stimulus packages to maintain the companies in the private sector in operation after the pandemic.

The limitations of the research are as follows. The current research only considers the reserve of the firms as a moderate variable and excludes other variables that could reduce the effect of the pandemic and help to influence financial and non-financial performance, so more indicators might be used in future studies. Also, the researchers should focus on studying how the managers of the companies have benefited from the COVID-19 pandemic and how they use it as an earnings management tool and its impact on the financial and non-financial performance of companies.

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