THE COVID-19 SHOCK AND LONG TERM SOLVENCY OF FIRMS: EVIDENCE FROM MIDDLE EASTERN COUNTRIES

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ABSTRACT

The aim of this study is to determine the impact of COVID-19 on long term solvency of firms operating in the Middle Eastern countries. This study is quantitative in nature in which the data has been gathered from Thomson Reuters with respect to 31 countries in Middle East. The variables considered in this study include equity ratio, times interest earned, current ratio and quick ratio and data was gathered for these companies from the year 2013 to 2020. Moreover, the data has been analyzed using the GLS method. The study found that there is significant effect of COVID-19 on both the times interest earned and debt to equity ratio. On the other hand, the effect of quick ratio was significant on times interest earned while it was insignificant with respect to debt to equity ratio. Moreover, the effect of current ratio was insignificant on times interest earned and it was significant on debt to equity ratio. This study is restricted to the companies operating in the Middle East region.

Keywords: COVID-19, Debt to Equity, Current Ratio, Times Interest Earned, Quick Ratio, Middle East

INTRODUCTION

The current situation of lockdown and COVID-19 has not only affected the health of people but also has affected the firms at a higher rate (Song et al., 2019). Based on the assessment of Didier, et al., (2020) the lockdown in the companies have created diminishing revenues and has created the crisis in the countries. The governments in different countries have decided to develop the policies that can be essential for managing the liquidity crisis according to Carletti, et al., (2020). The liquidity support is aimed to provide sustainability to the firms that can help them in surviving and meeting the short term and long term objectives (Blanco Escolar et al., 2020). The organisations need to think about the factors of liquidity and solvency that is needed to be injected in the firms for new equity and not just liquidity into the viable firms. However, it is difficult for the firms to assess whether how much amount is required for re-establishing the capital structure and balancing the system for different countries. According to the arguments of Brown & Kline (2020) the presence of lock down and COVID-19 has reduced the demand of the products that has created the crisis situations in the organisations and has reduced the overall profitability of the companies.

The emerging markets and developing economies in the Middle Eastern countries have been facing massive issues in terms of growth and solving the issues in the financial market according to the assessment of Alstadsæter, et al., (2020). There is a huge market disruption in the current market that has affected the solvency of the firms and has been facing the insolvency regimes that are designed for saving viable business while assessing the non-viable businesses and making the productive use of returning assets. There are different barriers and limitations towards the viable

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firms for solvency and creating the requirements for creditors for commencing the insolvency process. The organisations can use several measures for meeting these challenges and gaining quick response for the timelines and debaters for solving these issues according to the assessment of Anderson, Simone & Wolff (2020). The Covid-19 shocks have an enormous strain that has been affecting the firms' performance and has also reduced the sufficient amount of capital to cover the total debt and servicing cost for the coming year according to the research conducted by Pettenuzzo, Sabbatucci & Timmermann (2020). It has poorly affected the whole country and has also made severe challenges for the currently developed businesses in terms of solvency.

The following research is aimed to assess the Covid-19 shock on the current economy and the way it has been affecting the organisations as a whole (Guerrieri et al., 2020). Moreover, the researcher has also aimed to assess the concept of solvency that is present in the organisations and is necessary to bring about positive changes in the organisations wealth. The case that is under observation is the case of Eastern countries that is also highly affected with the issue of Covid 19. The researcher has aimed to assess the factors that are affecting the solvency of the firms and has also addressed the factors that are there and has been making improvement in the solvency of the firms. The following research has contributed towards the assessment of issues related to lockdown and Covid-19 that has restricted the businesses to gain higher profitability. According to Carletti, et al., (2020) the issue of solvency is needed to be resolved as it has a major role in the organisations for meeting its long term debts and other financial obligations. Moreover, it represents the company's ability for managing the operations in the present and in the future.

Due to the issue of lockdown there is a high reduction in demand of goods and services causing lesser profitability in the companies according to Carletti, et al., (2020). However, according to Pettenuzzo, Sabbatucci & Timmermann (2020) the firms requires enough capital arrangements for carrying out the operations and managing the functions related to long term debts of the organisation. Therefore, the rationale behind the following research is to assess the possible effects of covid-19 that has created a massive issue within the solvency of the firms belonging to Middle Eastern countries. The following section has introduced the core conceits of the research area that is under observation. The researcher has aimed to collect the data from several Middle Eastern countries belonging to different fields like oil and petroleum, hospitality, cement, real estate, pharmaceutical, electricity, water and food based organisations (Famiglietti & Leibovici, 2020). As there are different factors that affect the solvency of companies, the researcher in the following research has gathered the data belonging to quick ratio, current ratio, debt to equity and times interest earned for assessing the research problem based on solvency of Middle Eastern organisations.

LITERATURE REVIEW

The outbreak of Coronavirus disease (Covid-19) has severely affected the overall economy of the countries and has also created a massive shock for the small medium and large organisations according to the assessment of Bénassy-Quéré, et al., (2020). The businesses in Dubai, Saudi Arabia and Qatar are recommended to imply the policies and models that can be used for retaining the previous condition of the companies and can also solve the issues of long term solvency within the organisations. The global economy has badly affected the companies as it has been resulting in adverse impact on the financial performance of the organisations according to the assessment of Anderson, Simone & Wolff (2020). The Covid shocks are referred to as the negative impact on the economy and profitability of the company. The researchers like Obrenovic, et al., (2020) have also observed massive impact of Covid-19 on the solvency and liquidity of the firms. The emergence of this lock down situation has affected the performance and profitability of the organisation that can

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be regained with the help of better implementation of strategies and policies that can be used for solving the financial issues of the organisation according to Alstadsæter, et al., (2020).

Solvency is referred to as the capability of the firm to meet its long term obligations and evaluating the creditworthiness of the organisations. According to the assessment of Sachs & Group (2020) the firms need to have the ability for meeting its long term requirements and manage the abilities for meeting the liabilities of the firms. Based on the research carried out by Bell & Blanchflower (2020) the firms need to initiate the long terms debts and financial obligations that is an important part of the organisation that estimates the financial health of the company, for examples the firms related to petroleum and energy belonging to the countries Oman, Kuwait and UAE. The study of Carpinelli, Gallo & Palazzo (2020) has highlighted that the long term solvency can be calculated by assessing the income before taxes and dividing its total liabilities for getting the solvency of the firms.

The study of Demirgüç-Kunt, Horváth & Huizinga (2020) has highlighted that the COVID-19 has a major shock on the economy of the country as it has been affecting the small medium and large organisations. Here, the crisis management theory can be applied that has a major role in solving the problems related to the organisations. According to the analysis of Johnston (2016) the crisis management theory suggests in making contingency plans that can be suitable for the companies to resolve their issues and deal with the problems for gaining sustainability. As referred to the study of Pursiainen (2017) the situation of COVID-19 has created major issues for the companies and has also created the issues of solvency. Therefore, the theory of crisis management is applied for the organisations to solve these issues by developing contingency plans in this regard.

METHODOLOGY

Variables of the Study

The variables which have been considered in this study include COVID-19 shock and long term solvency of the firm. In contrast to this, the long term solvency of the firms in Middle Eastern countries is measured with the help of control variables. These control variables include debt to equity ratio, times interest earned, current ratio and quick ratio. On the other hand, the COVID-19 has been measured with the help of dummy variable in which 1 denotes to the existence of virus while 0 denotes to no existence of the virus.

Data Collection Methods

The data collection in this study is carried out with the help of secondary data. In this manner, the data of 31 companies from Middle East have been considered in this study. Therefore, the equity ratio, times interest earned, current ratio and quick ratio were gathered for these companies from the year 2013 to 2020. On the other hand, the website used for the purpose of extracting the information is Thomson Reuters.

Data Analysis

The data which has been gathered from the secondary sources of information with respect to the equity ratio, times interest earned, current ratio and quick ratio of 31 companies operating in Middle East countries, has been analyzed using the Generalized Least Square (GLS) in which the fixed and random effect of the models has been determined. On the other hand, the descriptive statistics has also been conducted in this study.

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RESULTS AND ANALYSIS

Descriptive Statistics

The below Table 1 depicts the descriptive statistics of the variables which have been considered in this study. In this manner, it can be determined from the below table that the mean value for quick ratio is obtained to be 1.299 which depicts that the average value for quick ration of 31 Middle East companies ins 1.299. While the standard deviation is computed to be 1.104 which depicts that the quick ration will deviate from 1.104. On the other hand, the mean value for current ratio is determined to be 1.993 which posits that the average current ratio of 31 Middle East companies is 1.993 while the standard deviation for current ratio is computed to be 1.523 which depicts that current ratio of 31 Middle East companies will deviate from 1.523. Moreover, the mean value for debt to equity ratio is determined to be 2.649 which show that the average debt to equity ratio of 31 Middle East companies is 2.649. In this manner, the standard deviation for debt to equity is computed to be 5.134 which posit that the debt to equity of 31 Middle East companies will deviate from 5.134. Lastly, the mean value for times interest earned was determined to be 37.710 which shows that the average value for times interest earned of 31 Middle East companies is 37.710 while the standard deviation for times interest earned is computed to be 121.460 which posits that the times interest earned of 31 Middle East companies will deviate from 121.460.

Table 1
DESCRIPTIVE STATISTICS OF THE VARIABLES

Variable	Obs	Mean	Std. Dev.	Min	Max
Quick ratio	248	1.299	1.104	0.04	8.96
CurrentRatio	248	1.993	1.523	0.02	11.08
Debt to equity	248	2.649	5.134	0	29.1
Timesinter~d	248	37.71	121.46	-120.83	642.9

Generalized Least Square (GLS)

Initially, the panel regression has been conducted which determined the fixed and random effect of the variables. On the basis of the panel regression, it has been determined that there is heteroscedasticity in the data. It is due to the reason that chi2 is determined to be 390000 while the p-value is computed to be 0.00 which is below the threshold of 0.05. Therefore, the generalized least square has been conducted in this study. In this manner, the below Table 2 depicts the GLS model with respect to the times interest earned. On the basis of this Table 2, it can be determined that the effect of COVID-19 has determined to be negative and statistically significant as [Coefficient= -3.175; p-value= 0.00< 0.05]. It depicts that the increase in COVID-19 outbreak will have negative effect on the long term solvency of the companies operating in Middle East region. On the other hand, the effect of quick ratio was determined to be negative and significant as [Coefficient= -0.801; p-value= 0.00< 0.05]. It posits that the increase in quick ratio will have negative influence on the times interest earned of companies operating in the Middle East. However, the effect of Current ratio was not determined to be significant as [Coefficient= -0.213; p-value= 0.22> 0.05]. It depicts that change in current ratio will have no influence over the times interest earned of companies operating in the Middle East.

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Table 2 GLS WITH RESPECT TO TIMES INTEREST EARNED				
	Coef.	**Std. Err.**	**z-statistics**	**P>|z|**
COVID19	-3.175**	0.128	-24.86	0
Quick ratio	-0.801**	0.228	-3.52	0
Current Ratio	-0.213	0.174	-1.23	0.22
_cons	4.907	0.135	36.41	0
Wald chi-square	1345.84	Probability Value		0

With respect to the debt to equity, the second model of the study has been tested and the results are presented in Table 3. It can be determined from the below Table 3 that there is positive and significant effect of COVID-19 as [Coefficient= 1.034; p-value= 0.00< 0.05]. It posits that the increase in intensity of COVID-19 will positively influence the debt to equity ratio of the companies operating in Middle East region. On the other hand, the effect of quick ratio was determined to be negative and insignificant as [Coefficient= -0.010; p-value= 0.725> 0.05]. It depicts that the increase in quick ratio will have no effect on the debt to equity of the companies operating in Middle East. Moreover, the effect of current ratio was determined to be positive and significant as [Coefficient= 0.068; p-value= 0.003< 0.05]. It posits that the increase in current ratio will influence the debt to equity ratio of companies operating in Middle East.

Table 3 GLS WITH RESPECT TO DEBT TO EQUITY				
	Coef.	**Std. Err.**	**z-statistics**	**P>|z|**
COVID19	1.034**	0.024	42.58	0
Quick ratio	-0.01	0.029	-0.35	0.725
Current Ratio	0.068**	0.023	2.99	0.003
Wald chi-square	2304.51	Probability Value		0

DISCUSSION AND SUMMARY OF HYPOTHESIS

Table 4 SUMMARY OF HYPOTHESIS		
S.NO	**Hypothesis**	**Status**
H_1	There is a significant effect of COVID-19 on the Long Term Solvency of Firms	Accepted

The above Table 4 depicts the summary of hypothesis and on the basis of this table, it can be determined that the hypothesis associated with a significant effect of COVID-19 on the Long Term Solvency of Firms has been accepted. It has also been supported in the study of Obrenovic, et al., (2020) that there is huge impact of COVID-19 on the times interest earned of company. In addition to this, similar results were obtained from the study of Bénassy-Quéré, et al., (2020) which stated that the outbreak of Coronavirus disease (Covid-19) has severely affected the overall economy of the countries and has also created a massive shock for the small medium and large organisations.

CONCLUSION AND RECOMMENDATIONS

The current situation of lockdown and COVID-19 has not only affected the health of people but also has affected the firms at a higher rate. The governments in different countries have decided to develop the policies that can be essential for managing the liquidity crisis. In this manner, this

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study has determined the effect of COVID-19 shock on the Long Term Solvency of Firms with respect to the Middle Eastern countries. In this manner, the data has been gathered with respect to 31 companies operating in Middle East region. In this manner, the data was considered from 2013 to 2019. Moreover, the variables which were considered in this study include equity ratio, times interest earned, current ratio and quick ratio. On the other hand, the data has been gathered from Thomson Reuters. With respect to the analysis, the data has been analyzed using the Generalized Least Square (GLS) in which the fixed and random effect of the models has been determined. Additionally, the descriptive statistics has also been conducted in this study.

In contrast to this, the results of this study determined that there was significant but negative impact of COVID-19 on the times interest earned. In addition to this, it has also been determined that there is also negative and significant effect of quick ratio on the times interest earned of companies operating in the Middle East region. However, there was no significant effect of current ratio on the times interest earned of companies operating in the Middle East region. With respect to the debt to equity ratio, it has been determined that there is significant effect of COVID-19 on the debt to equity of companies operating in Middle East. On the other hand, the effect of quick ratio was determined to be insignificant on the debt to equity ratio of companies in Middle East. Lastly, the effect of current ratio was determined to be significant on the debt to equity ratio of companies in Middle East. In this manner, it is evident that there is significant effect of COVID-19 shock on the long terms solvency of the firms. Therefore, it is suggested for the companies in Middle East that they must develop strategies to minimize the effect of COVID-19 as it is determined to influence long term solvency of the firm.

LIMITATIONS AND FUTURE IMPLICATIONS

This study has focused on determining the effect of COVID-19 shock on the long term solvency of the companies operating in Middle East region. However, there are several limitations of the study which must be considered by the future researchers. Firstly, this study has emphasized over COVID-19 in terms of having an impact of long term solvency of the firm. There are other factors which affects the long terms solvency of the firms. Therefore, it is suggested for the future researchers to emphasis over other factors which affect the long term solvency of the firm. Secondly, the study has determined the impact of COVID-19 shock on the long term solvency of firms operating in the Middle East region. The results of this study are restricted to Middle East region and it is suggested for the future researchers to include other regions as well which will increase the scope of this study.

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