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Module-Dissertation

**THE EMPIRICAL ANALYSIS OF THE IMPACT OF THE SARS-CoV-2
PANDEMIC ON THE FINANCIAL PERFORMANCE OF THE FIRMS OF
LONDON STOCK EXCHANGE**



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INTRODUCTION

The SARS- CoV-2 pandemic is an infectious disease to which has had a huge impact which represents the largest shock economy by the second world war. The pandemic had already caused massive dislocation among small businesses to which has reduced the active employment by 39% since January 2020. The outbreak has left the main national economies and business to cope with a huge impact of costs as government struggle with the lockdown measure and all restriction necessary to tackle the spread of the virus. The governments have cancelled and postponed various sports, religious, political, and cultural events to reduce the infections of the disease. According to the financial times, the global government debt reached the highest level so far. Furthermore, the unemployment rate has achieved 14. 8% that is the highest rate observed since the second world war. According to the international monetary fund, the World economy has shrunk about 3% (a downgrade of 6.3% percentage points in just four months). (International Monetary Fund., 2020) the SARS-CoV-2 has struck heavy all stock market in the world. On March 2020, the down jones industrial average and FTSE 100 has plunged by 23% and 25% respectively. Also, the S&P 500 lost about 20% during the same time that represents the worst lost since the financial crisis of 2008. According to Deloitte, the SARS- CoV-2 pandemic has caused a fall in bond yields, oil prices and stock markets as well as the liquidity crisis both individual levels and institutional. The SARS-CoV-2 pandemic has harmed and caused a decline in mostly businesses' financial performance. As a result of the Chinese study from a sample of listed Chinese companies, the financial crisis provoked by the SARS-CoV-2 outbreak has had a negative impact on the performance by decreasing the investment scales and reducing the total revenue. The main sectors which have been affected are hospitality, tourism and travel service to which has a negative impact on the sales, operation and production that is reflected in the negative return rate. In the UK the impact was harsh. According to the figures of office national statistics, the GDP in February 2021 was 7.8% below the level in February 2020. Furthermore, the production was 3.5% below the level which it was in February 2020. Also, the manufacturing fall about 4.2% below its level before the pandemic in February 2020 (Office national statistics., 2021). The UK businesses was affected by the spread of SARS-CoV2. However, the impact has been different for some sectors which have been hit harder than others due to the different risks of infection. Indeed, some sectors has had a positive outcome of the pandemic. For instance, owing to the lockdown the delivery service such as just eat, uber and Deliveroo observed a sudden

rise in online order booking service (Mkfm.com, 2020). However, sales, investment, employment and the mostly the financial performance of the firms have been affected badly. Thus, the crisis has affected the performance in various ways that has had either positively or negatively effects depending to the kind of sector. According to al-shammari, the crisis has harmed the firm's performance and the all economy in general (Al-shammari B., 2020). The global crisis will affect sales volume, cash flow as well as the ability to manage the business. (Deloitte., 2020) Indeed, the global pandemic has changed the experiences- as customers, employees, citizens, humans- and our attitudes and behaviour are getting different. The emerging of new behaviours, the SARS-CoV-2 represents a turning point to change the society towards a world more socially inclusive. (Schwab, 2021). Moreover, the SARS-CoV-2 has brought about a huge leap in change their business plan through a remarkable technological leap. During the pandemic (in particular, from April 2020) the consumers have moved toward online channels and companies have responded in turn. According to McKinsey global survey, the SARS CoV-2 has accelerated the digitization, supply-chain interactions, and the internal operations by three to four years. To stay competitive, the businesses must adopt new strategies and respond to the technological advancement so that to keep their performance at high level. (Mckinsey&Company, 2020). The shock economy provoked by the SARS-CoV-2 has been functioning as a catalyst for the implementation of the fourth industrial revolution(4IR)so-called industry 4.0 in our society that is a technological revolution to which will alter in particular the industries. On the other hand, the companies are to rethinking how to implement the digital technologies and to build a greater resilience in order not to have a negative impact on their business performance. The Mckinsey survey show that 93% of manufacturing and supply-chain professionals focus on resilience and 90% focus to plan to invest in talent for digitization. (Mckinsey&Company., 2020). According to the world economic forum, the company managers should act more strategies and shape new changes to make the companies' financial performance more efficient during the SARS CoV-2 pandemic and going forward (World Economic Forum., 2020).

The research comprises two parts: the first part reviews the impact of the SARS-CoV2 both on the world economy and on the UK economy and the second part shows the effect of the pandemic on the financial performance of the UK companies listed on the London stock exchange. In the first step it was utilized the financial data of the UK companies both in 2019 and in 2020 so that to quantify the impact of the SARS-CoV2 by comparing the means before the pandemic and during the pandemic by utilising the descriptive statistic. The comparison highlights how the companies across the industrial sectors has been affected by the effect of SARS-CoV2. The main contributions of such research are the follows. The first it was analysed the impact of pandemic on the financial performance of the UK firms. According to Shen et al the SARS-CoV2 has had a negative impact on the performance of the Chinese company owing to decrease of the total revenue. (Shen., 2020). The impact of the pandemic has damaged the production, operation, and sales of the firms. Indeed, company managers must be resilient with the impact of the pandemic to establish create strategies and carry out operational activities so that to assist the business recovery. Rababah (Rababah., 2020) analysed that, the SARS-CoV2 has had a negative effect in overall revenue, profitability and investment in companies across industries. As a result of the study the negative rate has cut down business operation, sales and production levels. Secondly, the research investigated the mechanism and how the SARS-CoV2 has impacted the financial performance and which sectors have benefited from it and which did not. Furthermore, the research provides to the investors the empirical information of the financial performance of the firms in the UK Market during the SARS-CoV-2 and it provide which sectors have been hit negatively and those positively. Also, the research proved the sectors that were significantly affected in the first quarter of 2020 when the pandemic has begun its

outbreak. However, this study may result limited as it didn't analyse an in-depth investigation through a larger sample but it was investigated a small sample of companies belong to different sectors. Furthermore, as the pandemic is still ongoing, this research might be considered in a short period of time and not in the long term. Therefore, it should be carried out further analysis of the future impact of the SARS-CoV2 on the financial performance of the firms going forward as the SARS-CoV-2 might impact the world's economy for years and bring a big impact on the future of business.

LITERATURE REVIEW

BACKGROUND

History of the SARS-COV-2 outbreak

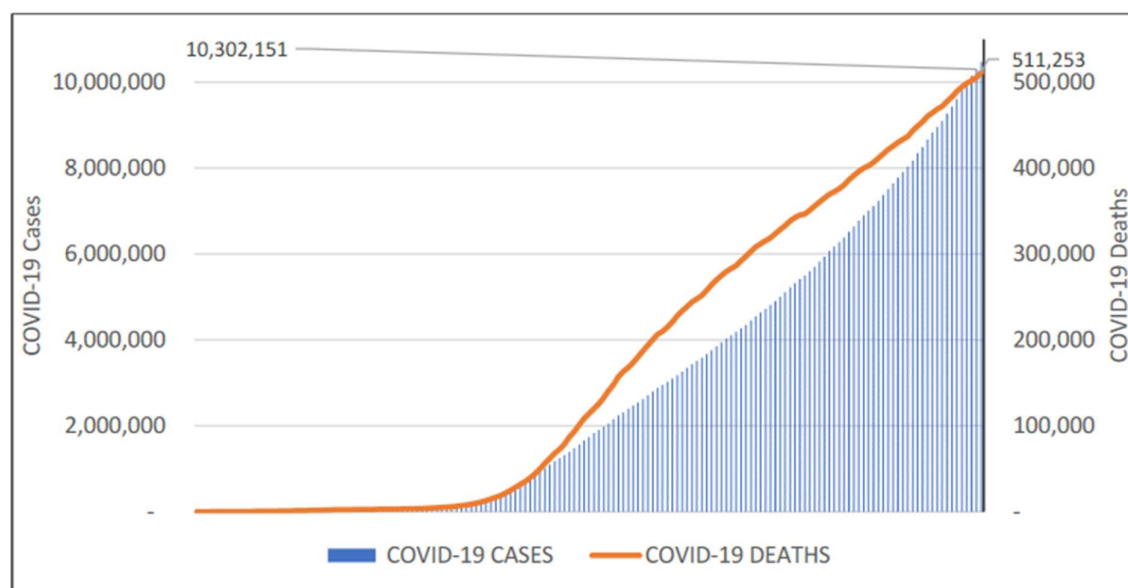
In the last years, there has been a rise of frequency of pandemics from the years 2000. Many researchers in some studies had warned that a large global pandemic was inevitable. The Covid 19 it was considered the worst virus outbreak since the 1918 Spanish influenza pandemic. (Neil M Ferguson, 2020). On January 30, 2020, the World Health Organization (WHO) declared an outbreak of a novel SARS-CoV-2 traced to a wet market in Wuhan, a city in the Hubei province of China, a "public health emergency of international concern." WHO classified the Coronavirus outbreak, commonly known as novel coronavirus disease 2019 (COVID-19), as a pandemic on March 11, 2020, and to date, COVID-19 has had a profound impact on the US health care system and economy. The SARS-CoV-2 so-called Covid 19 is an infectious disease that infected millions of people by provoking moderate respiratory illness and recover without requiring special treatment. However, Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness (World Health Organization., 2020). Table 1 below shows the events of the pandemic from January 2020

DATE	EVENTS
3 January 2020	China imposes lockdown in the cities of Wuhan.
30 January 2020	COVID-19 was declared as a Pandemic by World Health Organization.
31 January 2020	The COVID-19 was declared a domestic public health emergency by United States.

2 February 2020	It was declared the 1 st death outside of china due to COVID-19 outside in Philippines
9 February 2020	The death toll in China surpasses that of 2002-03 Severe Acute Respiratory Syndrome (SARS)
14 February 2020	Egypt reports 1 st case of COVID-19, the 1 st case in the African continent was declared.
15 February 2020	France reports 1 st death from COVID-19 outside of Asia
23 February 2020	COVID-19 cases rise in Italy in what becomes the largest outbreak outside of Asia
26 February 2020	Brazil confirms 1 st case of COVID-19, the 1 st case in South America
27 February 2020	1 st case of community transmission reported in the US
29 February 2020	1 st death due to COVID-19 in the US
8 March 2020	Over 100 countries report COVID-19 cases Italy imposes quarantine in Lombardy region
11 March 2020	WHO declares COVID-19 a pandemic
13 March 2020	Donald Trump declares national emergency in the US
17 March 2020	All 50 states in US have at least one confirmed case of COVID-19 California first state to implement 'stay-at-home' order in US
19 March 2020	Italy's death toll surpasses that of China
21 March 2020	EU suspends public deficit rules to inject fiscal stimulus across countries
25 March 2020	The White House and Senate leaders of both the Democratic and Republican parties in the US come to an agreement on a US\$2 trillion stimulus to aid workers, businesses, and the health-care system in response to the pandemic
26 March 2020	US leads the world in COVID-19 cases

As a result of the data of Johns Hopkins University, in 30 June 2020 the COVID cases reached about 10 million with 512,000 deaths across the world. The data refers to the UK, US, Brazil and European Union. (Johns Hopkins University., 2020)

Figure 2: Cumulative COVID-19 Cases and Deaths – Global Pandemic (as on 30 June)



Source: Data from the Coronavirus Resource Center, Johns Hopkins University

Table 3: Cumulative Cases: Top 10 Countries (as of 30 June)

Rank	Country	Confirmed Cases (Cumulative)	Country	Confirmed Deaths (Cumulative)
1	US	2,367,380	US	127,457
2	Brazil	1,402,041	Brazil	59,594
3	Russia	653,479	UK	43,815
4	India	585,481	Italy	34,767
5	UK	314,162	France	29,846
6	Peru	285,213	Spain	28,355
7	Chile	279,393	Mexico	27,769
8	Spain	249,271	India	17,400
9	Italy	240,578	Iran	10,958
10	Iran	230,211	Belgium	9,754

Source: Data from the Coronavirus Resource Center, Johns Hopkins University.

The COVID 19 had a negative impact on economic activities owing to the impact of the social distancing and lockdown. The impact ranging from a huge loss of jobs, disruption of service and travel and an increase of hospitalization and medical costs. The resulting of these tough measures have disrupted both international supply chains and aggregate demand as well as consumption patterns. Furthermore, the impact has amplified the economic shock by bringing a turbulence on the financial markets, the global real economy as well as the business.

COVID 19: The macroeconomic impact

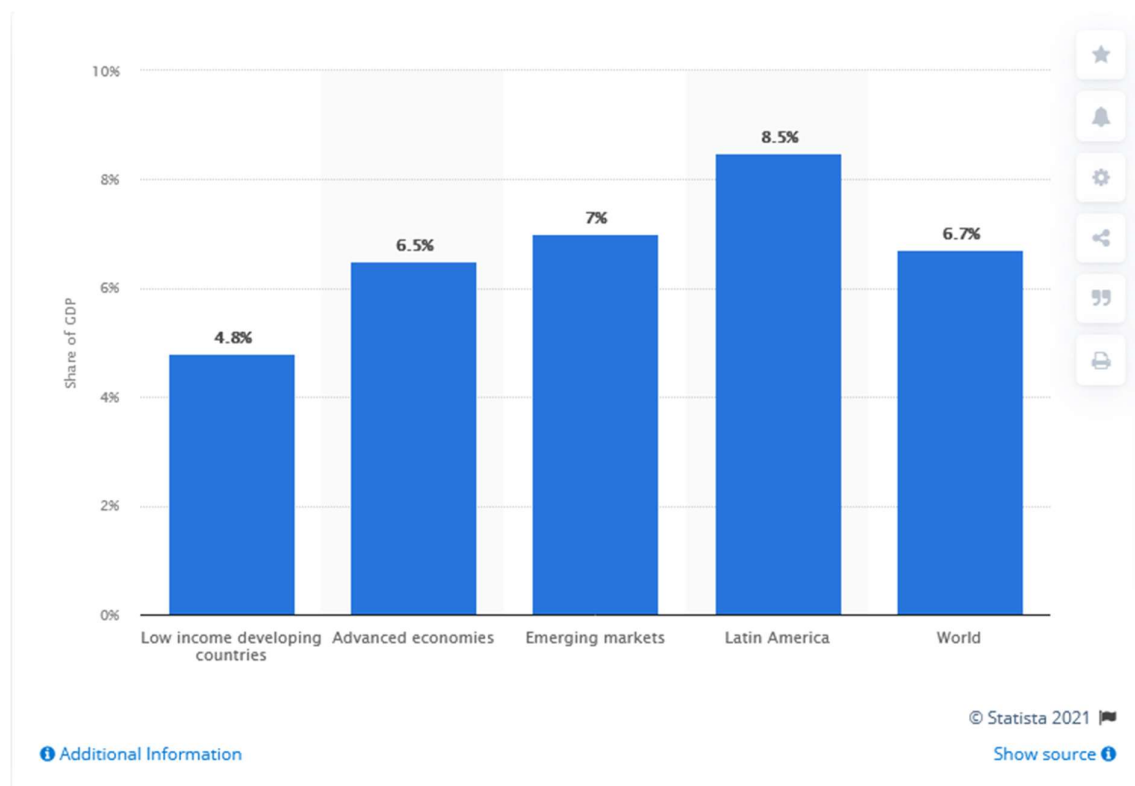
The negative impact of Covid 19 is expected to result a downturn of economic activities that brought the global economy to a contraction by 3% of the global GDP. According to the international monetary fund the contraction was provoked by lower activity during lockdowns; deep decline in productivity; greater uncertainty and persistence in social distancing activities which are resulted in a deep decline for the hospitality, leisure and travel sector. Furthermore, these tough measures have had a negative and profound impact on individuals, communities and societies by bringing a stop on social life by building the capacity to detect, isolate and care all cases. The lockdown has caused a big financial crisis (shock economy) and a huge impact both on small businesses and large businesses which many of them didn't recover from it. Indeed, these tough measures have provoked the shutdown and so an shock economy by hitting entire sectors especially sectors to which activities and services involving high physical contact with other people such as hairdressers, airline, shopping centers, restaurants, hotel, ect. Thus, the shock Economy provoked by the SARS-CoV-2 has provoked a supply and demand shock. The supply shock is an event to which apply the changes on the supply of product that in turn resulting in a decreased supply or positive increased supply. The supply shocks can be generated with event such as natural disasters and geopolitical developments as a war. On the other hand, a demand shock is an unexpected event that put down or up the consumers' ability or willingness to purchase goods and services at given prices usually temporary such as an earthquake, a virus outbreak ect. After its onset, the pandemic has caused 25% of businesses temporary closed by causing many bankruptcy in many industries by decreasing the demand (Bartik, 2020). As a result of this impact, the business owners were forced to change work methods that have had a financial constraint on companies and an uncertain for the future (Stephen., 2020). The financial crisis provoked by covid 19 was the worse than the financial crisis of 2008 because of the huge negative impacts of the real economy. As a result of the pandemic, the global economy is contracted by 3% in April 2020 by having a negative impact mostly on the tourism sector to which faced a decrease as high as 70% (World Bank., 2020). In July 2020, the real Gross Domestic Product (GDP) decreased by 3.5% by having a negative effect on GDP developments in 42 countries recording a deeper fall in growth rate. (Michael König, 2021). According to world bank report, the pandemic plunged the most countries into recession in 2020 since the second world war by shrinking both the advanced economies and developing countries by 7%. Every region is subject to substantial growth downgrades. East Asia and the Pacific will grow by a scant 0.5%. South Asia will contract by 2.7%, Sub-Saharan Africa by 2.8%, Middle East and North Africa by 4.2%, Europe and Central Asia by 4.7%, and Latin America by 7.2%. These downturns are expected to reverse years of

progress toward development goals and tip tens of millions of people back into extreme poverty. (World Bank., 2020).

The OECD estimated that the large-scale shutdown brings a loss Of GDP about 20-25% for each month if such measures remain in place that in turn imply three-month shutdown would induce a 5%-7% drop in annual GDP. (Boissay F., 2020). According to Bonadio the average decline in real GDP creates a major contraction in economy activity that in turn generate a disruption in global supply chain (Bonadio, 2020). Furthermore, such disruption developed a fall in worker productivity, thus, a decrease on the unemployment rate to which affected the firm revenue (Elenev, 2020) .Coibion, demonstrates through a survey that the lockdown has more impact than the covid 19 infections which lead to drops in employment, consumption lower mortgage payments as well as increased uncertainty (Coibon, 2020). Owing to the Business disruption of Covid 19, 64% of companies had a shortage of raw material supplies as well as dealt with the delivery and the products shortage (Syaifullah J., 2020).

The Figure below show the total impact of the Covid 19 on the GDP on the entire world was a declined by 6.7%.

Share of Gross Domestic Product(GDP) Lost as a result of the SARS-CoV-2 impact in 2020



COVID 19: The impact on Business and Financial Market

The spread of SARS-CoV-2 has caused a huge impact on the financial markets. On February 24th 2020 as the pandemic started, the financial market suffered glaring losses. The value of the Shanghai stock exchange, where the pandemic started, have plunged about 3% (Statista.com., n.d.). The Dow Jones average and FTSE 100 dropped more than 3%. The DAX, CAC40 and IBEX35 fell by about 4% and FTSE-MIB dropped by over 5% (Spelta A., 2021). The US stock market and the main index such as NASDAQ, S&P 500 and the Dow Jones has had the sharpest falls since 2008 by dropping by over 20%. Yet, the tough impact is recorded even on Tokyo stock exchange, in particular from Nikkei to which the share price dropped. Economics Experts analysed the impact of COVID 19. In particular, on the financial markets trading in terms of import and exportation, production and fuel price. (Sansa A., 2020). According to Baret et al (Baret S., 2020) the COVID 19 has a significant effect on the general financial markets by hitting shares, oil, equity and bonds. In a nutshell, the financial markets response on the COVID 19 is worrisome owing to the uncertainty in the financial markets investments as well as the continuous advance of the virus that could last in the next years and therefore create an economic and financial uncertainty situation that could hit, mostly, the businesses and the investors of the financial markets. As a result, in the world Businesses perspective, the SARS-CoV-2 has impacted ever before. The most sectors such as hospitality, travel, and so on have seen a low production which leads an enormous decline on the revenue that in turn led to higher operating costs and/or cash flow challenges owing to the pandemic (report, 2020). The pandemic has caused already a harsh blow both small businesses and large businesses. As a result, 43% of businesses had temporarily closed originated a disruption in the supply chain. Furthermore, the impact has hit the employment rate, by reducing it about 39% since February 2020. (Bartik A, 2020). The impact interested most various sectors across the industries such as food services, hospitality, travel, personal service, financial services and arts and entertainment. However, the hospitality businesses as well as arts and entertainment have suffered by a lot by having a decline in employment rate over 50%. In contrast, many sectors to which have been affected by the pandemic and the social restrictions in less way by receiving an increase in revenues include internet providers, cellular operators, health insurance, goods delivery services providers, internet streaming video platforms. Yet, Financial services, professional services and real-estate generated less losses owing to remote working. According to Lin and Zhang the COVID 19 Pandemic has hit the global food supply and market in a different way. The analysis conducted on a sample of 122 agricultural export Chinese companies, demonstrated that in the period of March- April 2020 although the agricultural business decreased their exports some agricultural products such as grain and oil recorded increases (Lin B., 2020). The significant challenges in the food sector owing to the SARS CoV-2 are related to many factors such as transportation network disturbances, consumer purchasing behaviour and labour absenteeism (Nakat Z., 2021).

As far as the travel sector concerned, the global travel industry is one of the hardest hit industries from COVID 19. Indeed, during the Lockdown measure, several countries suffered 99% decrease in booking through sites such as Expedia, booking as well as Airbnb. Surely, the impact on travel interested all tourism system by resulting in a significant slump in the hospitality sector either (Deloitte., 2020). Furthermore, the airline companies have been hit hard as well. Indeed, they brought a radical change in flight operations, reducing staff member and reconfiguring their airline network by sticking to the safe rules provided for the COVID 19 by the governments (Budda L., 2020).

The pharmaceutical sector was advantaged from Covid 19 as It increased the demand of medicines, vaccines and medical devices. Earlier on the pandemic in March 2020, the demand change, supply shortage, the panic-buying of oral home-medications brought an advantage on the short term on the health market. (Ayati N., 2020). The measures to prevent the infections and control the pandemic has caused a decline in aggregate supply apart from a reduction in consumption and investment. (Seetharaman P., 2020)

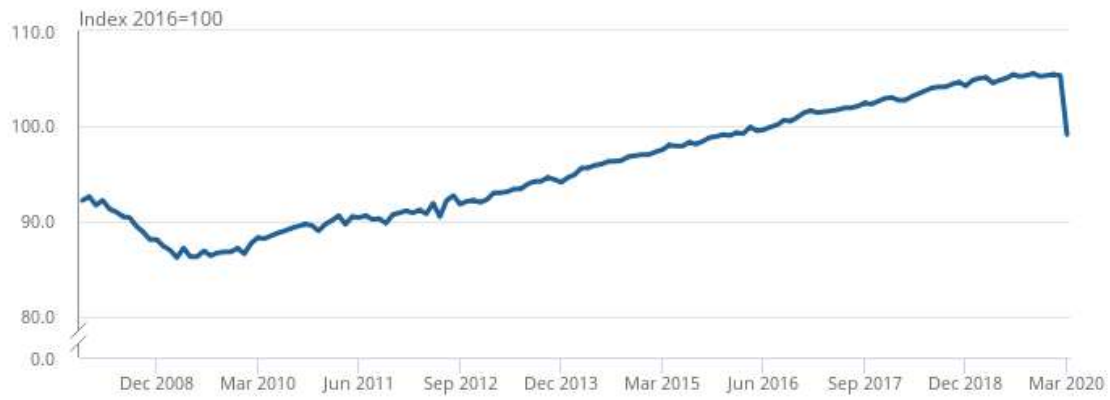
The Taylor review noted that technology advancements and the automation of individual tasks result in job creation (Taylor P., 2019). The effect of covid 19 is having a huge impact on technology sector by disrupting the electronic value chain. The pandemic has undeniably led to an acceleration of new technologies which will change the world of work and the human behaviour. Many high-tech companies have moved the activity on remote work and hybrid model so that to continue their businesses. According to McKinsey, the pandemic pushed companies to adopt the smart working which is being adapted about of 25% of the workforces in advanced economies. (Mckinsey., 2020) New technologies stemming from innovation have effects on the economy, and on society more generally, that are proportional to how widely they are adapted. Furthermore, the pandemic and lockdown measures have been prosperous for the tech giant companies. it amplified the streaming market to which refers all types of media services and contents offered directly online. On top of that, Amazon, Spotify and Netflix are the brands that values increased during the pandemic by benefiting, therefore, by the pandemic (Marketingdive.com., 2020). Thus, the short- and long-term economic consequences of the pandemic are generally highly advantageous to tech companies.

COVID 19:The impact of Covid on the UK Economy

The impact of covid 19 on the U.K economy has been hard than the other countries. From lockdown restrictions the businesses as well as the economy have been hit hardly. The magnitude of the crisis provoked by the SARS CoV-2 is unprecedented in modern times. By analysing the data between January 2020 and March 2020, the economy experienced a big shock economy that it has dropped down the GDP dramatically by 5.8% in March by resulting the largest fall since the financial crisis of 2008. The figure above shows the sharp contraction on GDP in March 2020. A decline in GDP as a result of the crisis, leads to a decline in demand for goods and services which creates a slump in prices, income and production (Kouki M., 2017)

Figure 1: There was a sharp contraction of GDP in March 2020

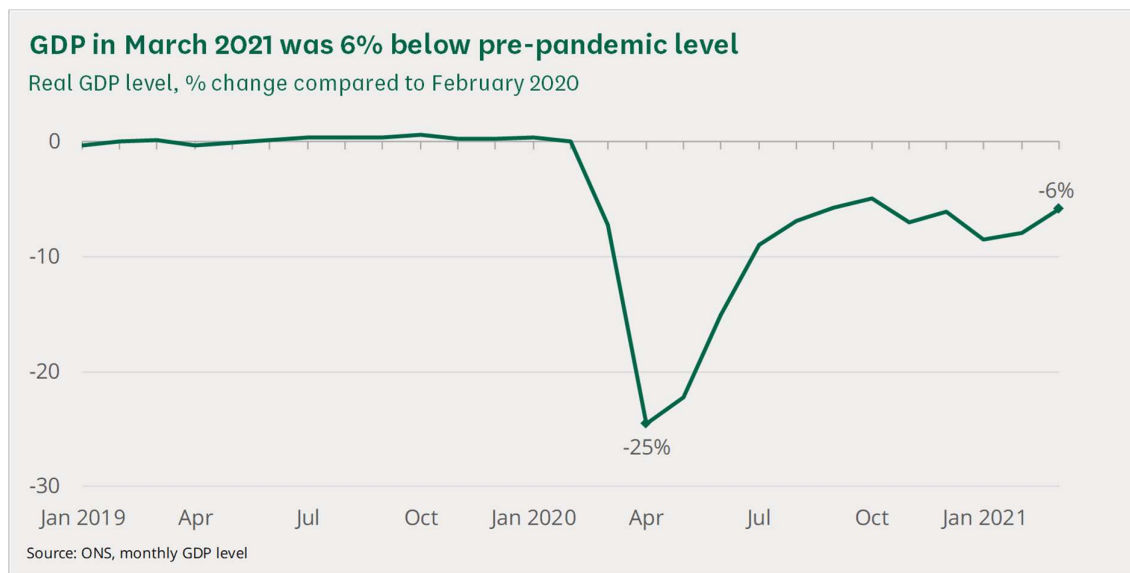
Monthly GDP, seasonally adjusted, UK, January 2017 to March 2020



Source: Office for National Statistics – Monthly GDP

In April 2020- during the first lockdown- the UK GDP fallen by 25% lower than the two months earlier in February and March. However, in June 2020, the economy was opened raising the GDP about 15 %.

Figure 2: The GDP fallen by 25%



The Second lockdown in November brought another fall in GDP. In January 2021 is registered another fall in GDP after the restriction was eased in December owing to the resurged of the new virus variant identified in Kent county also knows as variant B.1.1.7.

According to the office for national statistic, the decline of GDP has provoked a significant negative impact on the UK business owing to the effect of tough measures of covid 19 such as the effects both lockdown and social distancing which slumped in consumer demand, business factory closures and supply chain disruption. The mandatory shut-down of non-essential businesses as well as the measures to contrast the virus reflect on the sharp reductions in spending by businesses and households. (Office for national statistics., 2020). Furthermore, the production output dropped by 16.3% in Quarter 2 2020 due to the decline production output in April which led a fall in manufacturing output. Also, in the Quarter 2 Services output declined by 19.2% which provoked to a slumped in the industries mostly hospitality and food services. In March 2020, the impact of covid on the UK services industries fall by 6.2% the largest fall by June 2012 (Office for national statistic., 2020).

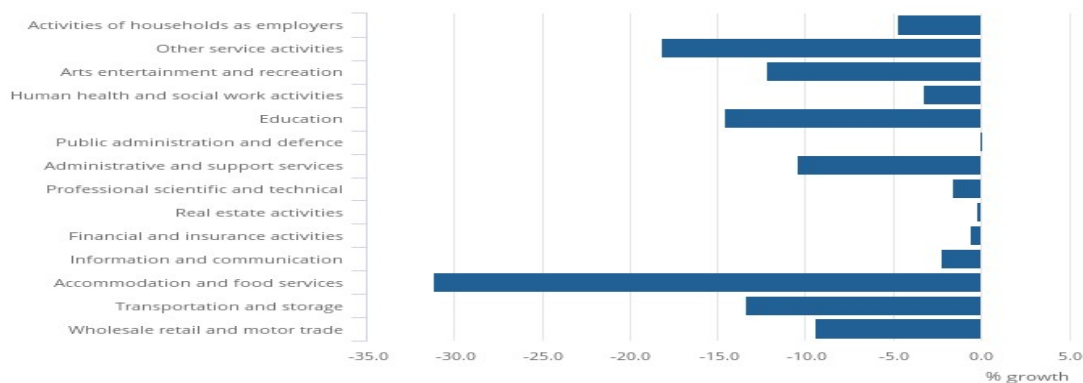
Figure 2: Services output fell at its sharpest rate in March 2020
Index of services, month-on-month growth, seasonally adjusted, UK, January 2008 to March 2020



Source: Office for National Statistics – Index of Services

As a result, some industries belong to the services sector have been hardly affected. However, more have been affected in a different way than others. The accommodation and food services sector were impacted by the Covid 19 severely dropping by 31.1% between February and March 2020. however, on 23 March 2020(at the beginning of the lockdown restriction). The accommodation and food services cut off their normal activity creating a significant negative impact on hotels, restaurants, pubs and bars among others. Another sector that was hit severely by the pandemic is transportation and storage falling by 13.3%. Furthermore, the other services such as sport, museum, cultural services, film and TV production and hairdressers dropped by 18.1%.

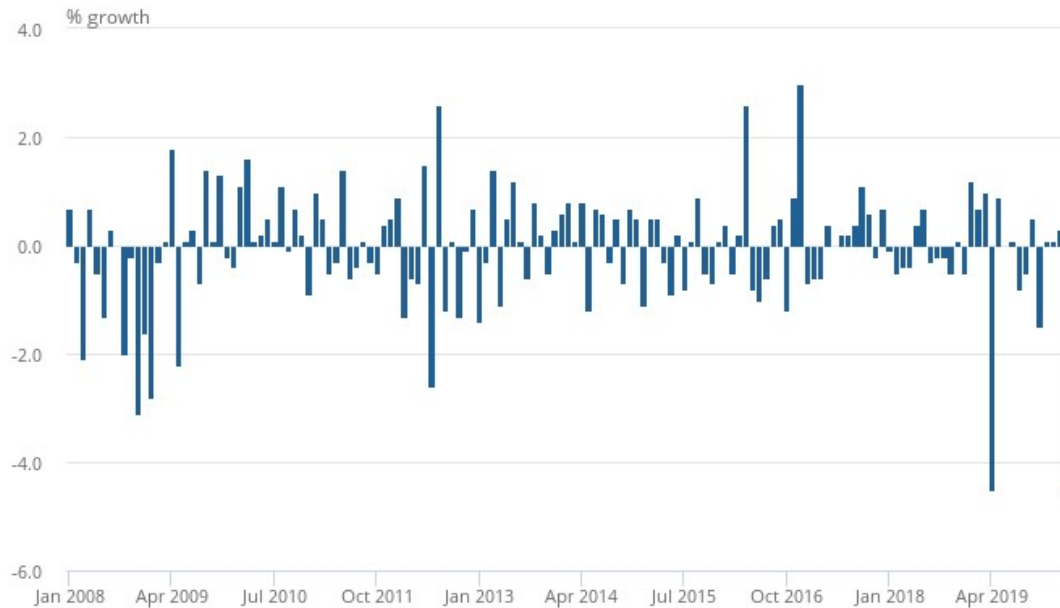
Figure 5: All but one of the 14 services sectors declined in March 2020
Index of Services, main sectors, month-on-month growth, seasonally adjusted, UK, March 2020



Source: Office for National Statistics – Index of Services

Figure 3: The fall in total production output during March 2020 is the largest monthly fall since January 1979

Index of Production, month-on-month growth, seasonally adjusted, UK, January 2008 to March 2020

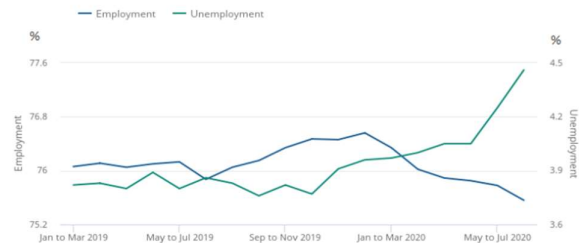


Source: Office for National Statistics – Index of Production

The production industries fall in output by 4.2% resulting the largest monthly fall since January 1979. According to Okun (Okun A., 1970) a real change of the real production output gave a change on the unemployment rate that in turn depends of the real GDP. The pandemic has slumped the UK employment rate by reaching 75.6% in June 2020 that in turn increased the unemployment rate by 4.5% up from 0.6%. As a result, the people that have been away from work were about 7.3 million in April to June 2020. On top of that, the UK government helped many businesses to keep their staff on by helping them to pay their salaries, under the furlough scheme to which pays 80% of employees wages for the hours that they aren't able to work. According to FitchRatings, the furlough scheme limits the unemployment shock in the UK by preventing a significant increase in unemployment rate and to keep the economy far away from a collateral damage to the economy in the medium term (FitchRating., 2020). Moreover, in the period from march to august the redundancies rate increased by 113.000 on the year, and a record 114.000 on the quarter, to 227.000 by reaching the highest level of redundancies since July 2009 (Office for national statistic., 2020).

Headline labour market estimates suggest the employment rate has been decreasing since the start of the coronavirus pandemic, while the unemployment rate has started increasing a few months later

UK employment rate (LHS) and unemployment rate (RHS), seasonally adjusted, between January to March 2019 and June to August 2020

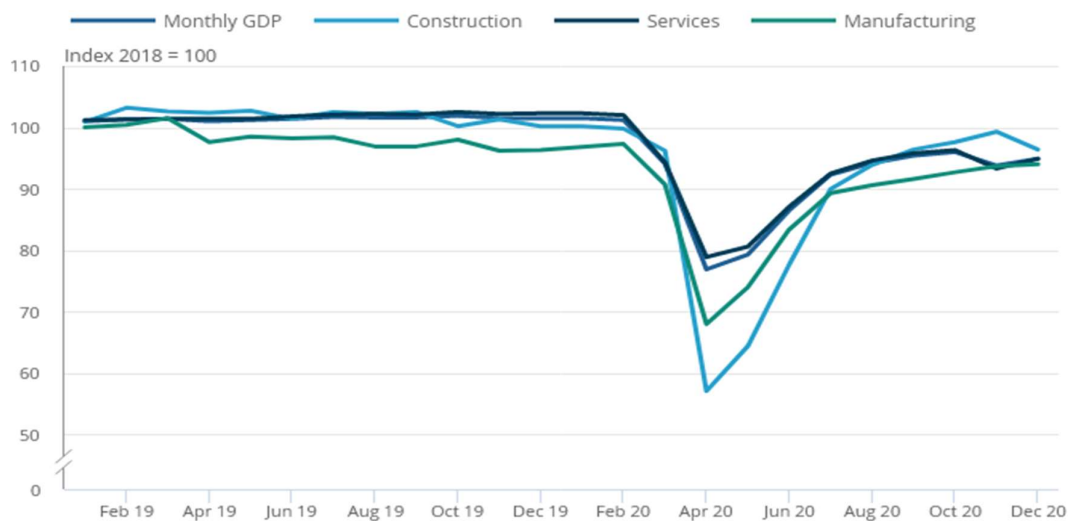


Source: [Labour market overview, UK: October 2020](#)

Lead analyst: [Bob Watson](#)

In a nutshell, the SARS-CoV-2 pandemic from March 2020 has generated more uncertainty and a huge harm to the UK economy falling back mostly on the GDP which in turn strike the production rate as well as the service sector and most other sectors. However, the eased of restrictions on December 2020, has recorded a growth. In December 2020 the GDP was 6.3% which is increased than the lower level of February. The service sector increased by 1.7% due to the easing of restrictions, the production and manufacturing rate grew slower by 0.3% respectively than the level of February 2020 with a positive contribution from electricity and gas, manufacturing and water and waste. The construction industries fall by 2.9% owing to the decreased of 3.8% in new work and 1.5% in repair and maintenance.

The rise in service led to an increase in output in December 2020

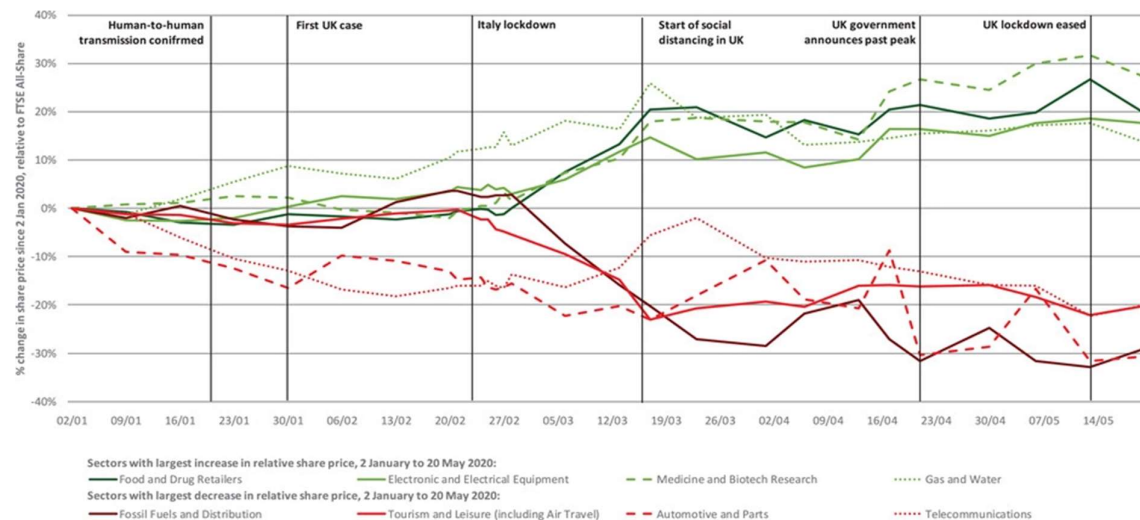


Source: Office for National Statistics – Monthly GDP

The economies which received a massive capital input are most affected by the financial crisis amplifying the level of public debt (Kouki M., 2017). The Financial crisis provoked by the SARS CoV-2 could amplify the level of debt which could have the consequences of crises going forward and thus threatening the economy stability. The UK government debt is increasing as the government is funding its spending through more borrows. As a result, on 1 June 2021 the government debt was close to 100% of UK GDP (Harari D., 2021) owing to the quantitative easing (a monetary policy where the banks purchase the government bonds so that to put money into economy to have an expansion of economic activity) to which the bank of England purchased on March 2020 645 billion worth of bonds, by arriving at a sum equal to 895 Billion in November 2020 (Bank Of England., 2020). The quantitative easing allowed the UK government to put in place numerous policies such as the furlough scheme and business interruption loan scheme to support businesses and workers and to keep businesses and the economy afloat as well as many people as possible employed. (Harari D., 2021) Nevertheless, with the gradually reopened of the economy, the economic indicators show a strong recovery is underway but with an uncertainty how strong and sustained will be the recovery. However, the bank of England expect that the GDP level may reach its pre-pandemic level by the end of 2021.

The impact of SARS CoV-2 on the UK financial market

The relationship between the stock market and economic growth was found by Goldsmith and Bosworth who have found a positive correlation between stock market and economic growth (Goldsmith R., 1969). However, the slowdown of the country's growth and the high interest rate may break down on the economy sector that in turn would impact on the stock market. (Owusu P., 2021). The SARS-CoV-2 caused a decreased in the total market capitalization in the Europe which amounted 4.4 trillion euros at the end of 2020. In March 2020, The global financial crisis provoked by the pandemic slumped the total market value on the London stock exchange because of the huge-sell-off of the shares. As a result, the total value of market capitalization decreased about £900 billion. (Statista.com., 2020). The market collapsed of 30% in the FTSE 100 and FTSE 250 In the week followed the lockdown. The FTSE 100 (is a share index of the 100 companies listed on the London stock exchange) dropped out at the lowest level about 14,3% from 7.700 in May 2019 to 4993.89 on 23 March 2020. The FTSE 250 (share index of the 101st to 250th largest company of the London stock exchange) collapsed from 21.883,4 in December 2019 to a much lower value of 15.101,1 in March 2020 (Statista.com, 2020).



The figure above draws the big changes in the share prices over the period from 2 January 2020 to May 2020. For most sectors, a little change occurred when in Italy was introduced the first lockdown. The big change in the share prices occurred in 16 March when The UK government confirmed the first urged social distancing. As a result, most sectors such as food and drug retailers, electronic and electrical equipment, medicine and biotech research and gas and water recorded an increase on the share prices owing to the grew of demands of such sectors. However, the price of most sectors such as tourism and leisure, fossil fuels and distribution, automotive and parts and telecommunications slumped down by a lot due to the lockdown which, in fact, forbade people to leave their homes. Zaremba et al, shows that the governments which has taken severe measures against COVID 19 has caused an increase in stock market volatility which in turn impacted on the business performance of the firms. (Zaremba A., 2020) Furthermore, any form of crisis increases uncertainty in all market which in turn reduce the investment in risky assets (Wagner A., 2020). According to Lyocsa& Molnar the SARA CoV-2 increased the financial market volatility and decreasing the investments which in turn had a huge impact on the financial performance of the firm. (Lyocsa S, 2020). According to Rababah (Rababah., 2020), the covid 19 has impacted on small- and medium-sized companies which are most affected by it. On top of that, the study suggest that the governments, banks and central banks must create new policies to tackle the financial crisis and the impact which the pandemic may have on the financial performance of the firm.

Determinants of The Financial performance of firms

The COVID 19 pandemic had an unprecedented effect on the economy which could have a long-term impact on firm financing and firm costs of capital (Goodell J.W., 2020). Thus, an impact on the firm financing may have both decreased and increased the total sales. On top of that, these changes on total revenues have impacted undoubtedly on the financial performance of the firms. The financial performance related to the measurement of how the company are using well its assets from its primary mode of business and generate revenues. Also, the financial performance is being used to measure the financial health of the firm over a given period. Furthermore, the financial performance is considered an outcome to which tell the investors the well-being of the firm and if to invest in it or not by relating to income, operating costs, debt structure, asset and investment return (Jordi P., 2018). The financial performance is a form to which depend on strategy and action created by the financial manager so that to reach the organizational goals. Moreover, it quantifies the result of a

company's operations as well as the processes in financial terms. The investigation on the financial performance of firms may predict and explain the success/failure as well as an analysis between bankrupt and non-bankrupt firms. (Beaver W., 1966). The financial Ratios are the values to help to evaluate a company's financial performance through the comparing of the financial statements. (Fraser L., 2016). According to foster to make an analysis through the financial statements the researcher shall be able to measure the difference between companies or at the same company in different periods and to be able to measure some variables such as an empirical bankruptcy. (Foster G., 1986). Furthermore, the ratios can be used to draw the financial and managerial performance as well as to help to assesses the effects of internal and external environmental factors such as governmental legislation and economic factors (Jordi P., 2018). The most important indicators to analyse the financial performance are the financial ratios: leverage ratio, profitability ratio, liquidity ratio and efficiency ratio.

Liquidity ratio

The liquidity ratio determines whether the company's assets are able to pay off the company's obligation on the due date. Liquidity refers a form of readily convertible into current liabilities or into cash (Dahiyat A., 2016). The liquidity is a key that ensure a stability of the company and the ability to have pretty assets to cover the liabilities. (Murray J., 2016). According to Kesimli and Gunay, the liquidity is crucial for the firm as is an investment in current assets and current liabilities which within a year are liquidated. (Kesimli I., 2011). The liquidity is a crucial key of a company to settle current liabilities(short-term). Indeed, it refers the amount of cash available after considered the financial obligations in the period so the quantity of capital available to make an investment. If the liquidity ratio results more than 1, it implies that the company can easily re-pay back its short-term debts due. On the other hand, whether the ratio is less than 1 this imply the business is not able to pay off its short- term debts due. Hence, the current ratio explains to investors how the company can cover the short-term debt with its current assets (Elaine M., 2016). A lack of liquidity could take off the incentives given by the suppliers of credit, services and goods which in turn would result in a higher price of goods that could affect the profitability of the company. According to Banos-Caballero (Banos-Caballero S., 2016)there is a positive relation between liquidity ratio and firm performance, which implies the optimal level of investment in working capital maximises the value of firm which in turn balances cost and benefits. One of the ratios commonly used is the current ratio which compare current assets to current debt. The current ratio can evaluate whether the company is able to pay off its short-term obligation through its assets. (Atrill P., 2016)

Leverage ratio

The financial leverage is considered the most factor that can affect the firm's profitability. The leverage ratio measures the ability of the firm to settle its financial obligations and how the firm finance its operations through the debt (Atrill P., 2016). If a company has too much debt it could jeopardy itself as well as its investors. However, the Modigliani and miller's theory states that the tax shield from the tax- deductible interests result positive on the cash flow of the company by making value of the company levered more higher than the value of an Unlevered company (Modigliani F., 1958). In a nutshell, if a company uses the debt to finance the growth, it implies that the company may generate more earnings than it would have without financing. Therefore, if a company has

more debt is better than a company that has more equity due to the shield tax which in turn may help a company to fuel growth. On the other hand, whether the debt levels are too high the financial performance of company may be worse making a bad image on investors and may decline the share values. Indeed, Tih (Tih K., 2010) demonstrated that the firms with low financial leverage tend to have a better performance than firms with high financial leverage. The most common ratio to measure the leverage is the Debt-to-equity ratio which determines the ability of company to pay of the long-term debt. If the ratio is high it means the company is risky i.e. the company is funded more through debt than the use of equity. On the contrary, whether the ratio is less than 1 it means that the company is healthier by having a great balance on the financial structure. The debt to equity ratio determines the company's debt (total liabilities) to the value of its net assets (total shareholders' equity).

Profitability ratio

The Profitability ratio measures the capacity of firms to generate the profit from the income after deducting it from all of its costs (Hilarius B. W., 2018). The profitability is the unique measure of corporate and an essential indicator of financial performance. The ratios show the financial health of the firm and how the company is able to manage its assets. The profitability analysis is an important measure to determine the company's bottom line for its managers and owners alike and how the company is using its assets, thus, performance at the end of each quarter or year. (Atrill P., 2016). The most commonly way to measure the profitability ratio is through Return of asset (ROA) which shows how profitable is a company to its total assets. On top of that, the ROA gives to the investors or managers how the company's management is efficient to use its assets to generate revenue. In a nutshell, ROA tells the investors the earnings that the company has from the invested capital. Moreover, the ROA shows to the investors how effective is the company in converting money that it invests into net income. (Proenca P., 2014). The ROA is calculated after tax- profit divided by total assets.

Efficiency ratio

The efficiency ratio or activity ratio is used to assess how the company is using its assets and liabilities internally, thus, the ability to produce income through capital and assets. Efficiency ratios measure the short-term performance of company generally referred to a period of 1 year. Also, the efficiency ratio takes into account various aspect such as the amount of time it takes to convert inventory in cash (Santosuosso P., 2014). The efficiency ratios have a high correlation with profitability ratios as a company become profitable if efficiently allocate its resources. Therefore, an improvement of efficiency ratios indicate that the company is more profitable. (Keith A., 1987) The main ratio which is being used to calculate the efficiency ratio is the asset turnover ratio that quantify how the company is efficiency in using its asset to generate revenue. The higher the asset turnover ratio the better the company is performing, since higher ratios imply that the company is generating more revenue per dollar of assets.

DATA & METHODOLOGY

Hypothesis and research variables

The SARS-CoV 2 has harmed the financial performance of the UK firms. Usually, the economic crisis led to a decline in industrial sector owing to a decreasing in purchasing power. Thus, the Covid 19 pandemic affected the company's financial performance by harming the components of current assets which it affected by sales (Pedro., 2014). Therefore, a change in current assets may affect the value of current ratio. The first hypothesis that can be considered is:

H1: The SARS-CoV 2 has a negative effect on the liquidity measured through the current ratio

The decrease of total revenue provoked by a financial crisis could affect the profits as well as cash received which, in turn, would impact on the debt. Indeed, an impact on profit would lead a company to increase its debt and the unavailability of cash to make debt payments. Therefore, the global crisis could hurt the leverage ratio. An increase on debt-to-equity ratio could bring a decrease in the capital structure so-called equity due to the impact of the global financial crisis which, in turn, decreasing the company's revenues which, in turn, may impact on shareholders (Sung., 2000). The second hypothesis can be considered is:

H2: The SARS-CoV2 has a negative effect on the leverage ratio measured through debt-to-equity ratio.

The financial crisis may decrease the net income owing to weakening people's purchasing power and increased the interest costs so that the firm's profitability decreased significantly. According to Shen (Shen., 2020), the Covid 19 Pandemic has had a huge impact on the Chinese companies' performance due to a decrease of the total revenue which, in turn, affected the Return Of asset. Therefore, the third hypothesis is:

H3: The SARS-CoV2 has a negative effect on the profitability ratio measured through return of asset.

Furthermore, an impact of the financial crisis on the net income decrease the people's purchasing power which could generate problems of the assets of the company. Indeed, the decline in sales would affect the revenues which, in turn, would impact on the assets of company, thus, on the ability of company's asset to generate revenue. Therefore, the fourth hypothesis is:

H4: The SARS-CoV2 has a negative effect on the efficiency ratio measured through asset turnover ratio.

Hypothesis

H1: the covid 19 pandemic has a negative effect on the leverage ratio

H2:the covid 19 pandemic has a negative effect on the profitability ratio

H3:the covid 19 pandemic has a negative effect on the liquidity ratio

H4: the covid 19 pandemic has a negative effect on the efficiency ratio

The research is based on the secondary data to which have been collected by considering the financial reports on 2019(Before the SARS-CoV2) and 2020(During the SARS-CoV2) of companies belong to the London stock exchange. The population-listed below- considered 42 companies to which are listed on London stock exchange, divided into 6 sub-sectors: pharmaceuticals, chemicals, consumer goods, technology, travel services and hospitality. The performance of each company is measured by analysing the financial ratios. The liquidity ratio is calculated by using the current ratio that compare current assets to current liabilities. It analyses if the company is able to pay-off its short-term debt through its current assets. The profitability ratios is measured by the Return of asset(ROA) that shows the asset productivity and efficiency to which generating profit. The more efficient a company is, the more the market share increases which in turn increase the profitability. The asset turnover ratio is the main ratio that is being used to quantify the efficiency ratio which measure the efficiency of the company in using its asset to generate revenue. The higher the asset turnover ratio the better the company is performing, since higher ratios imply that the company is generating more revenue per dollar of assets. The leverage ratio measures the capacity of the firm to pay back its financial obligations and the financing of its operations through the debt (Atrill P., 2016). The ratio is being measured with the debt-to-equity ratio that measure the degree to which the company finance its operations through the debt decision.

Sample's subsectors

Pharmaceutical	Chemical	Hospitality	Consumer goods	Technology	Travel service
Convatec group	Croda international	Just eat	JD sport	Kainos digital	Ryanair airline
Smith nephew	Jhonson mattney	Pphe hotel group	Tesco	Aveva group	Easyjet
Astrazeneca	Synthomer	Intercontinental hotels	Sainsbury's	Sage group	National Express
Alliance pharma	Elementis	Wheterspoon	Unilever group	Computacenter plc	Trainline
Dechra pharmaceutical	Treatt	Restaurant group plc	Diageo PLC	Ricoh	On the beach group
Glaxosmith kline	Victrex	Whitbread plc	British American tobacco	Blue prism group	GO-ahead

Indivior	Directa	Domino's pizza	Reckitt Benckiser	Kape group	Stagecoach
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Data Analysis

The Data analysis on the research have been done with the descriptive statistics that seek to describe both the means of a spread of scores which is called the measure of central tendency and the spread of score called the dispersion of which the variance is an example (Fisher., 2009). It has been carried out a statistical analysis with different tests on the performance of companies of London stock exchange between before the pandemic (2019) and the period during the pandemic (2020) which the pandemic has begun. Moreover, it has been done the data normality test which is essential to make out a parametric statistical test. However, if the data is not normally distributed it should be carried out a non-parametric statistical test such as the Wilcoxon signed rank test.

The table 1 shows the companies' performance analysis on the whole sample. Despite the pandemic, the current ratio growth than before the Covid outbreak in 2019 which it could be that on the short-term the companies have not been affected thoroughly. Furthermore, the growth is due to an increase in demand in some sectors such as technology, consumer goods, chemical and pharmaceutical as due an increase in online sales as well as an increase in drugs and medical products. The mean shows that in 2019 the current ratio was 1.3733 but in 2020 was 1.6902. However, the debt-to-equity ratio shows an increase during the SARS-CoV2. Before the pandemic the debt to equity was 0.7520. During the pandemic the level of debt was 1.5608 by increasing of 0.80. It implies that the impact of pandemic has affected the companies in the long-term. Therefore, the level of debt went up and earnings took a hit during the pandemic and could have a backlash in the next decade after the virus outbreak. According to Deloitte (Buckley., 2021), The ability to repay debt has deteriorate for all companies, except very large ones. However, the worries about companies that have lower ability to repay-off their debt may likely be offset whether companies raise their productivity-enhancing investments. Therefore, the pandemic had a negative impact on companies' financial performance due to the change of the debt to equity's average. The average value of return of assets is decreased during the pandemic. Before the pandemic it was 6.50%, while during the pandemic was about 4.35% by decreasing of 2.29%. The increase of level of debt justifies the degrowth of the return of asset. The more debt the company have, the less are the investments which in turn falls back on the efficiency of assets to generate earnings. As a result of decrease of return of asset, also the asset turnover ratio shows a decrease during the pandemic which was 0.6047 than before that result to be 0.7719.

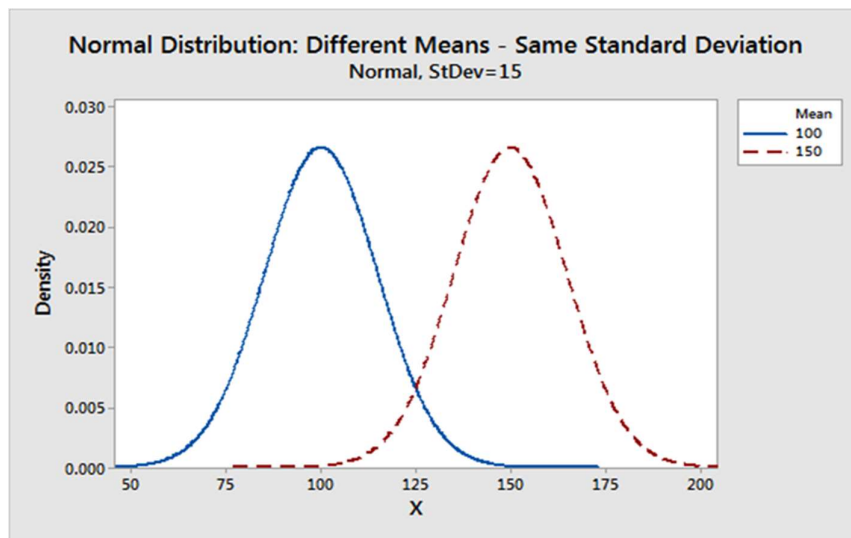
Table 1 Descriptive Statistics result

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before-SARS-CoV2	42	.27	4.00	1.3733	.85516
Current_Ratio_During_SARS-CoV2	42	.33	7.72	1.6902	1.36327
Debt_to_Equity_Before_SARS_CoV2	42	-5.50	3.80	.7520	1.30784
Debt_to_Equity_During_SARS_CoV2	42	.01	15.16	1.5608	2.49557
Return_of_Asset_Before_SARS_CoV2	42	-.10	.22	0.0650	0.06003
Return_of_Asset_During_SARS_CoV2	42	-.17	0.037	0.0435	0.09616
Asset_turnover_Ratio_Before_SARS_CoV2	42	.12	2.63	.7719	.55629
Asset_Turnover_Ratio_During_SARS_CoV2	42	.06	2.26	.6047	.50702
Valid N (listwise)	42				

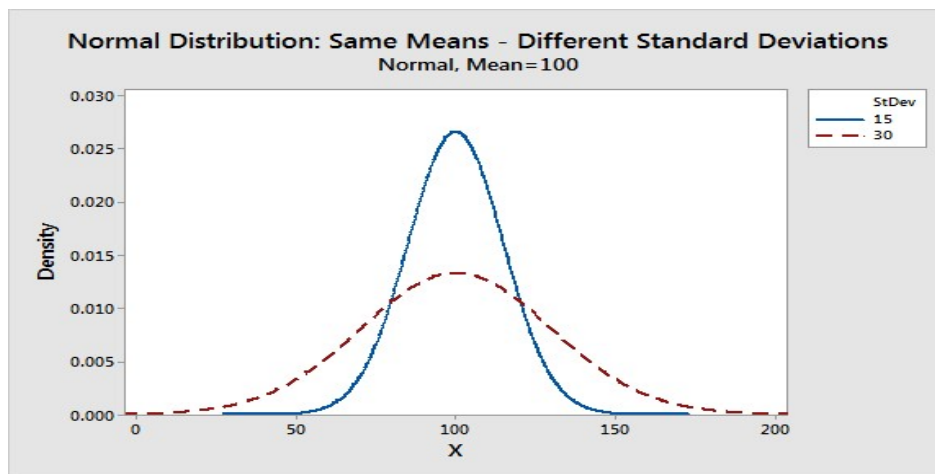
Data normality Test

The data tests of normality are used to assess if the population has a normal distribution so-called Gaussian distribution, i.e., is the probability that distribution is symmetric about the mean. The bell curve is used to draw a normal distribution that consists of a symmetrical bell-shaped curve. Therefore, the data near mean are more frequent in occurrence than data far from the mean. The normal distribution has two important parameters:

- -The mean that defines the peak for normal distributions. If the means changes it means that the entire curve shift left or right on the X-axis



- -The standard deviation which determine how far away from the mean the values tend to fall i.e., shows the distance between the observation and the average. If the standard deviation changes this imply that either tightens or spread out the width of the distribution along the X-axis. Larger standard deviation creates distribution that are more spread out.



The normal distribution must have the curve symmetric at the centre i.e around the mean μ .

For a normal distribution, 68% of the observations are within $\pm$ one standard deviation of the mean, 95% are within $\pm$ two standard deviations, and 99.7% are within $\pm$ three standard deviations. The tests of normality that are being used commonly are Shapiro-wilk and Kolmogorov-Smirnov.

Shapiro-wilk test

The Shapiro–Wilk test tests the null hypothesis that a sample $x_1, \dots, x_n$ came from a normally distributed population (Hanusz Z., 2016). The test statistic is

$$W = \frac{\left(\sum_{i=1}^n a_i x_{(i)}\right)^2}{\sum_{i=1}^n (x_i - \bar{x})^2},$$

where:

- X_i (with parentheses enclosing the subscript index i ; not to be confused with x_i) is the i th order statistic, i.e., the i th-smallest number in the sample;
- $\bar{x} = (x_1 + \dots + x_n) / n$ is the sample mean.

The coefficients a_i are given by:

$$(a_1, \dots, a_n) = \frac{m^T V^{-1}}{C},$$

where C is a vector norm

$$C = \|V^{-1}m\| = (m^T V^{-1} V^{-1} m)^{1/2}$$

and the vector m ,

$$m = (m_1, \dots, m_n)^T$$

is made of the expected values of the order statistics of independent and identically distributed random variables sampled from the standard normal distribution. V is the covariance matrix of those normal order statistics. The null hypothesis of the Shapiro-wilk test is that the population is normally distributed. If the p values is less than an alpha level it means that the null hypothesis is rejected and so there is no significance that the data which have been tested are not normally distributed. However, if the p value is more than an alpha level the null hypothesis is not rejected and so the distribution is normally distributed.

The Kolmogorov-Smirnov test

The Kolmogorov- Smirnov test is another test that compares a sample the maximum distance between the cumulative distribution and theoretical cumulative distribution function (Steinskog D., 2007). The maximum discrepancy is defined by the equation:

$$F_n(x) = \frac{\text{number of (elements in the sample } \leq x)}{n} = \frac{1}{n} \sum_{i=1}^n 1_{[-\infty, x]}(X_i),$$

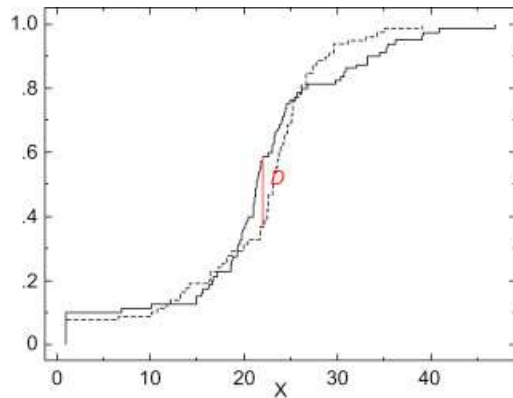
Where:

$1_{[-\infty, x]}(X_i)$ is the indicator function, equal to 1 if $X_i \leq x$ and equal to 0 otherwise.

The Kolmogorov-Smirnov for a given cumulative distribution function $F(x)$ is:

$$D_n = \sup_x |F_n(x) - F(x)|$$

where $F_{1,n}$ = experimental distribution; $F_{2,n}$ = theoretical distribution; and sup = supremum function.



The graphic above shows the maximum discrepancy D between the experimental and theoretical Cumulative distribution function. Whether the maximum discrepancy is smaller than normally expected for a given sample, the theoretical distribution is acceptable for a population with a certain alpha level of confidence. Thus, the null hypothesis H_0 is accepted at alpha level as described on the equation:

$$D_{n,n^\tau} < C(\alpha) \sqrt{\frac{n+n^\tau}{nn^\tau}}$$

where D_{n,n^τ} = maximum discrepancy; $C(\alpha)$ = critical value of N sample size and (α) confidence level; n = number of elements on theoretical sample; and n^τ = number of elements on experimental sample.

If the p value is less than an alpha level the null hypothesis is rejected and the distribution is not normally distributed. On the other hand, if the p value is greater than at alpha level the null hypothesis is not rejected and the data are normally distributed.

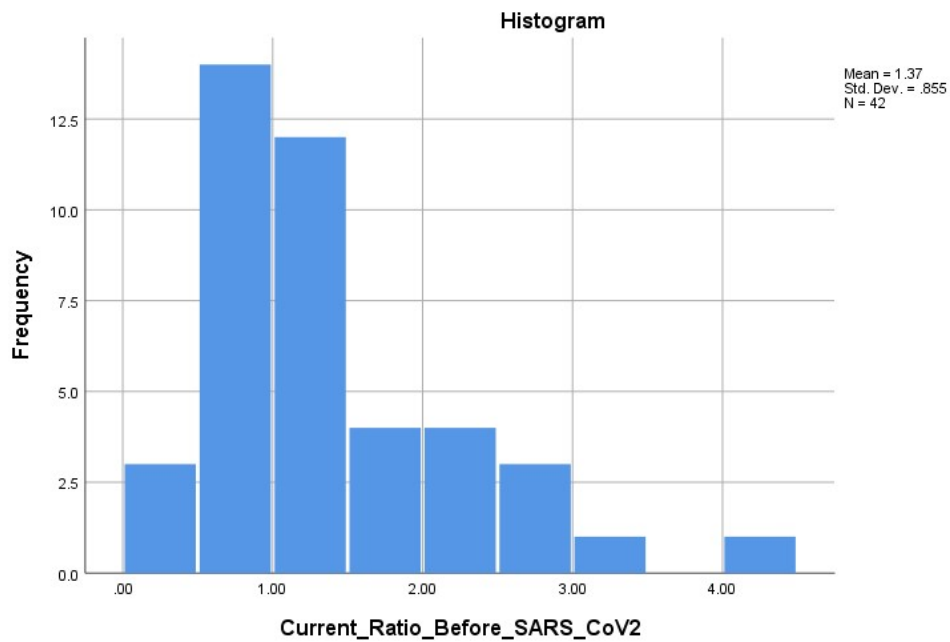
The table 2 Below shows the normality test. As a result, with an alpha level of 0.05, just the sample referred to the return of asset- before and during the pandemic- is normally distributed. The return of asset before the pandemic has an P level of 0.155 more than of 0.05 of alpha level considered. The return of asset during the pandemic shows an P level of 0.286 more than of alpha level of 0.05. On the other hand, the other samples referred to the other ratios are not normally distributed with the significance value of <0.05 or 0 of each observation. The distributions not normally distributed, the data could not be tested by using a parametric statistical test. Therefore, it was done a Wilcoxon signed-rank test which is a non -parametric statistical test that is being used with a distribution not normally distributed.

Table 2 Test of Normality

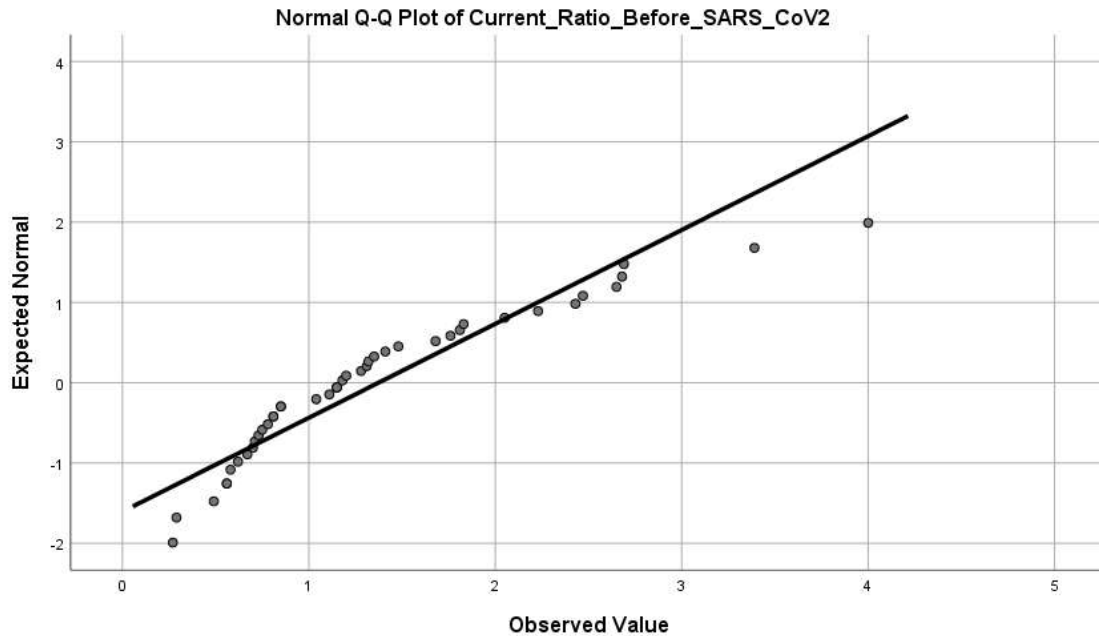
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Current_Ratio_Before_SARS_CoV2	.154	42	.014	.896	42	.001
Current_Ratio_During_SARS_CoV2	.214	42	.000	.704	42	.000
Debt_to_Equity_Before_SARS_CoV2	.259	42	.000	.743	42	.000
Debt_to_Equity_During_SARS_CoV2	.268	42	.000	.534	42	.000
Return_of_Asset_Before_SARS_CoV2	.112	42	.200*	.961	42	.155
Return_of_Asset_During_SARS_CoV2	.079	42	.200*	.968	42	.286
Asset_turnover_Ratio_Before_SARS_CoV2	.183	42	.001	.856	42	.000
Asset_Turnover_Ratio_During_SARS_CoV2	.234	42	.000	.806	42	.000

*. This is a lower bound of the true significance.

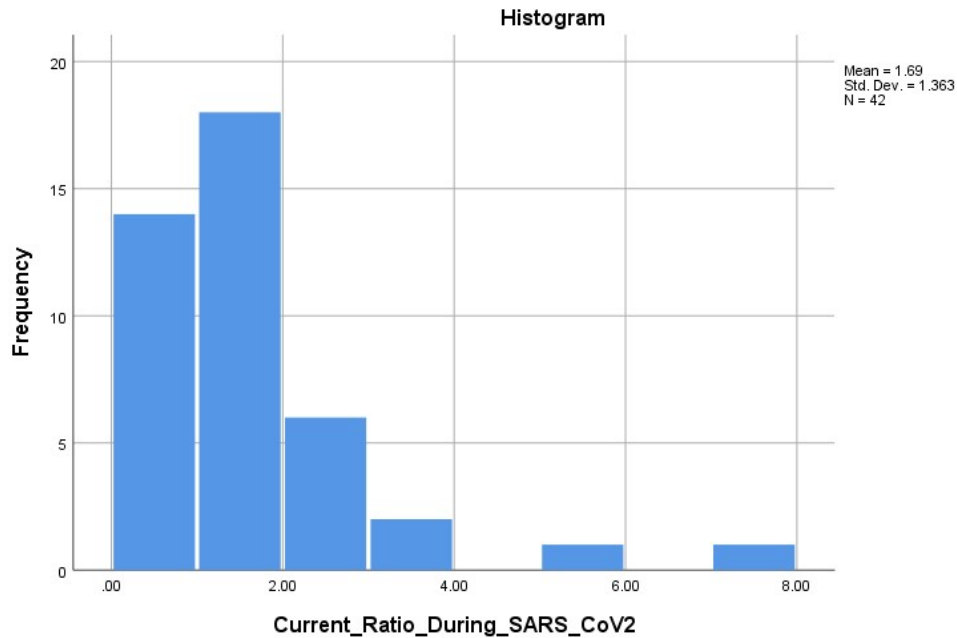
a. Lilliefors Significance Correction



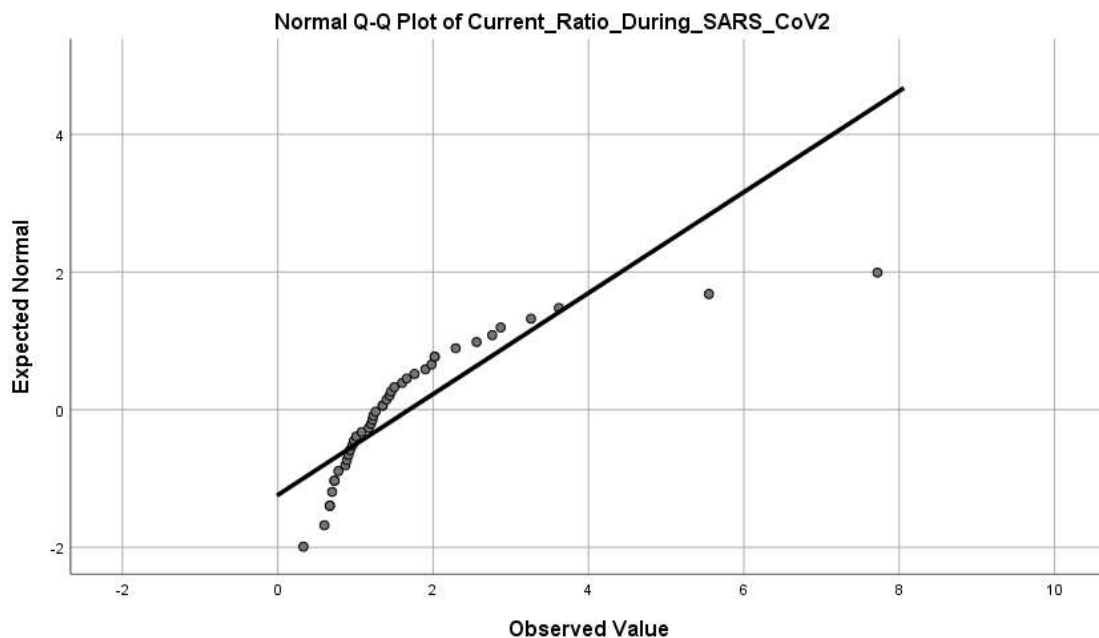
As a result of the normality test the current ratio before the pandemic is not normally distributed, the p level result 0.001 is less than the alpha level of 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.



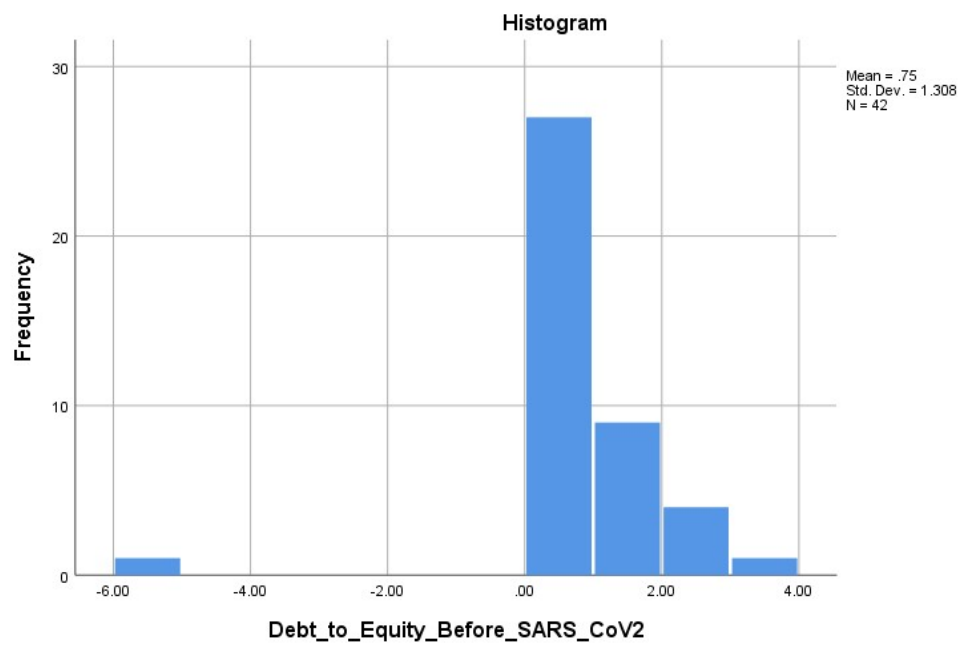
The normal Q-Q plot shows the not normally distribution. The observations are not aligned along the line and the curve has a longer till to its right and it's right-skewed which draw the not normally distribution.



As a result of the normality test the current ratio during the pandemic is not normally distributed, the p level result 0 is less than the alpha level of 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.



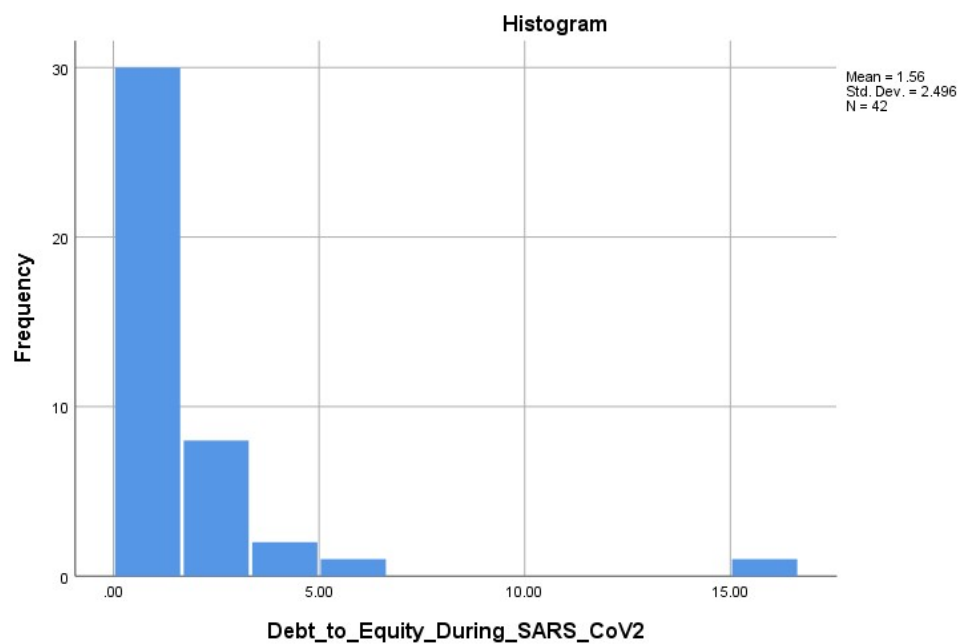
The normal Q-Q plot shows the not normally distribution. The observations are not aligned along the line and the curve has a longer tail to its right so it's right-skewed which draw the not normally distribution.



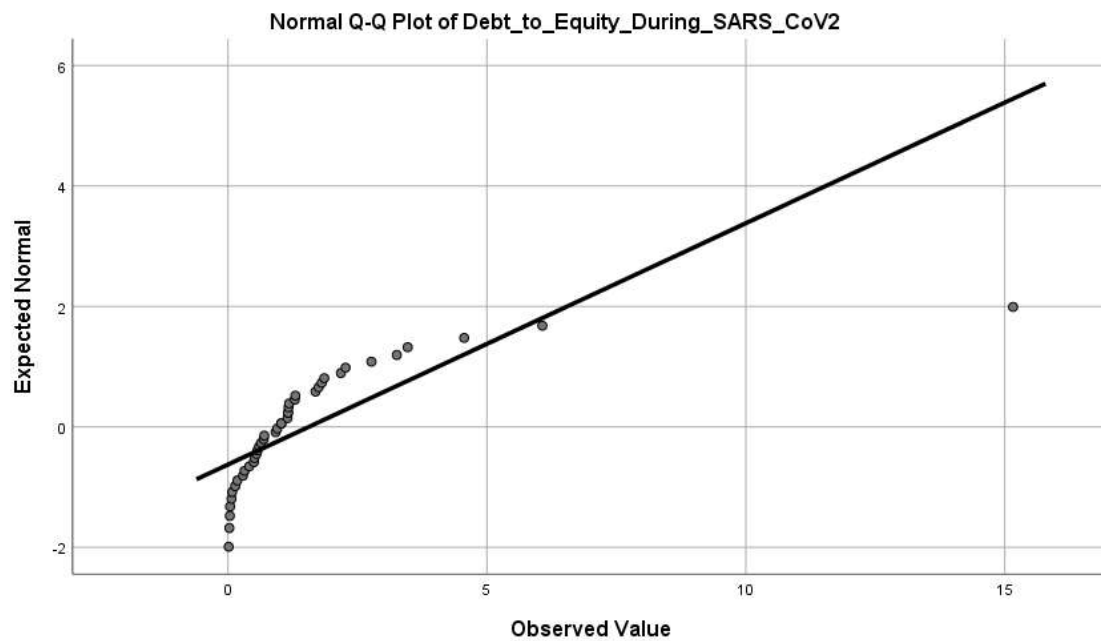
The result of the normality test of the debt-to-equity ratio before the pandemic is not normally distributed, the p level result 0 is less than the alpha level of 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.



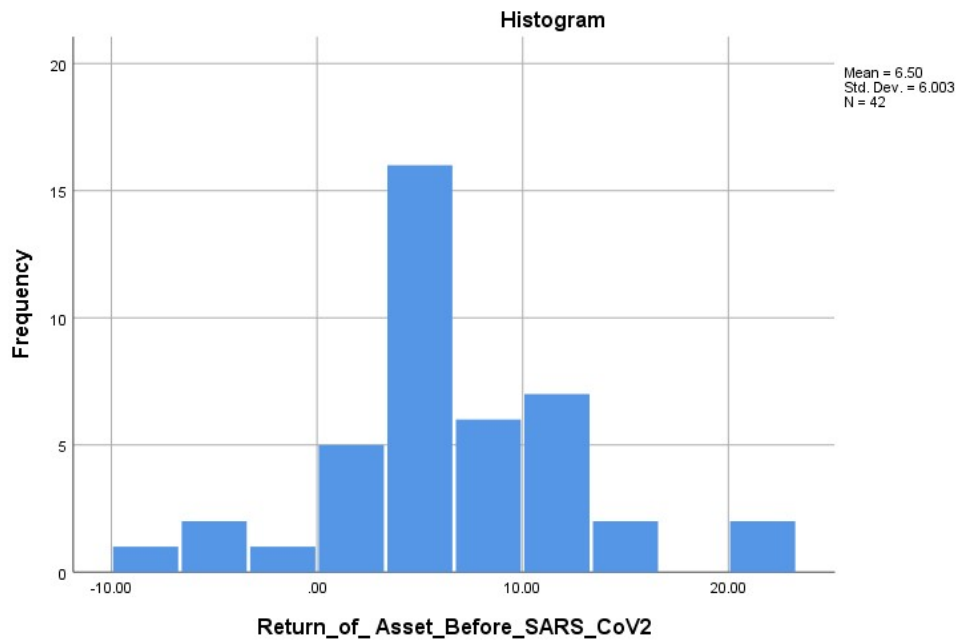
The normal Q-Q plot shows the not normally distribution. The observations are not aligned along the line. The distribution has a longer tail to its left so it is left-skewed(negatively skewed) which draw the not normally distribution.



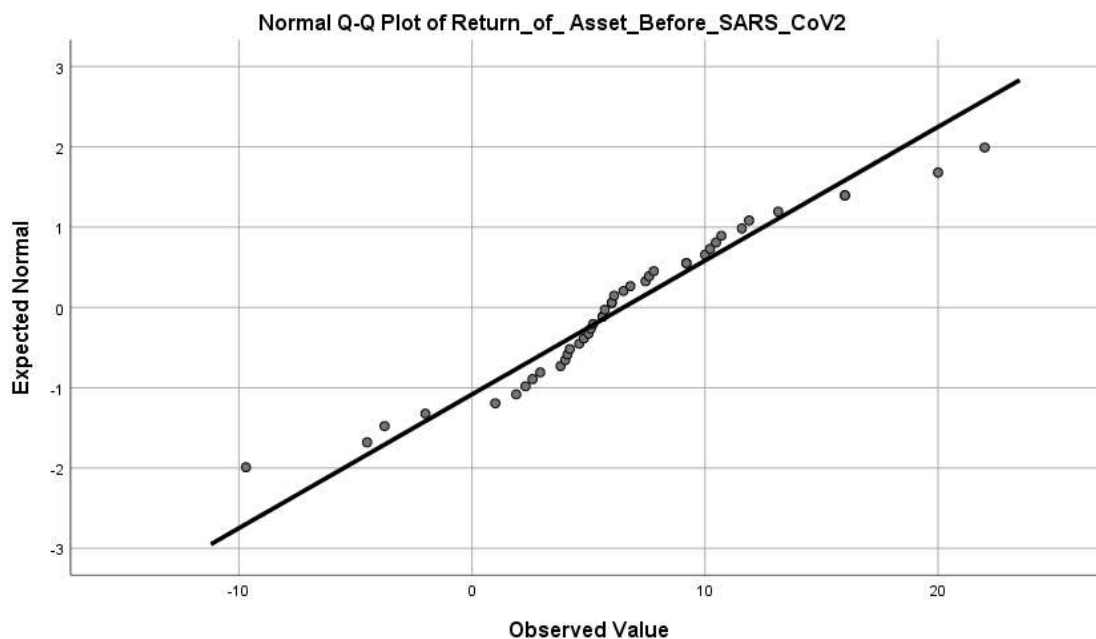
As a result of the normality test, the debt-to equity during the pandemic is not normally distributed, the p level result 0 is less than the alpha level of 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted



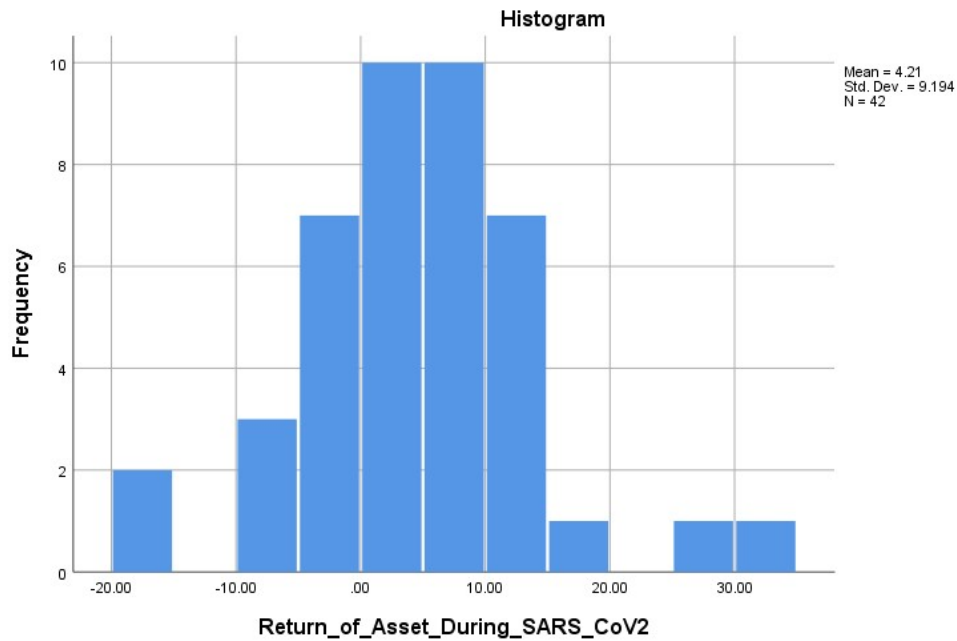
The normal Q-Q plot shows the not normally distribution. The observations are not aligned along the line. The distribution has a longer tail to its left so it is left-skewed(negatively skewed) which draw the not normally distribution.



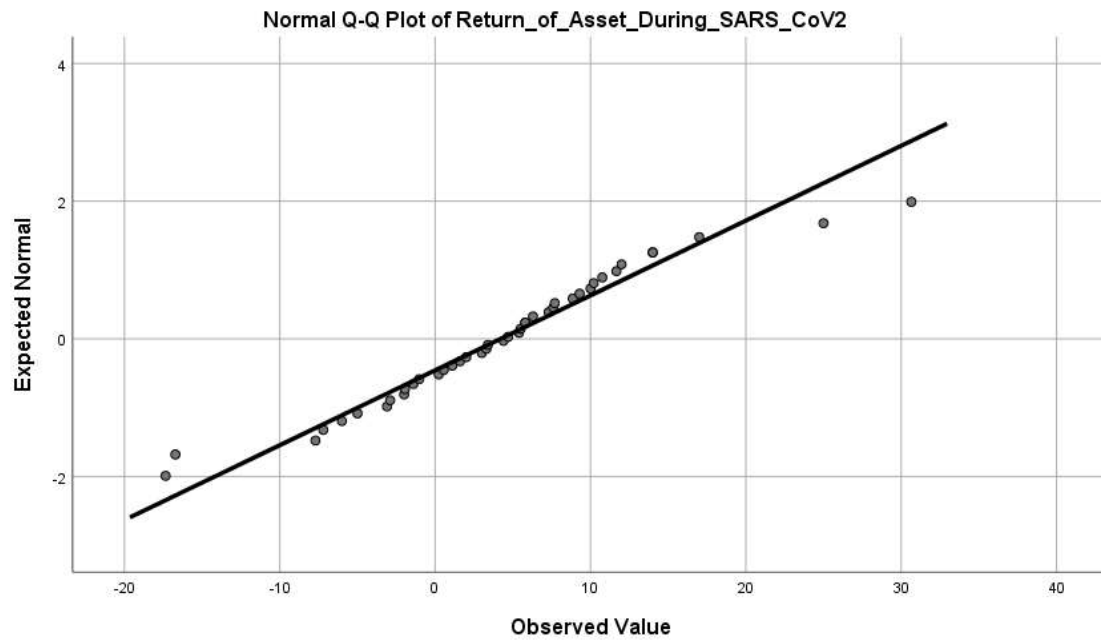
The test of normality of return of asset before the SARS-CoV2 is normally distributed as a result of the both tests with an p level of 0.155 and 0.200 more than the alpha level of 0.05. The histogram shows a distribution with a fat tail. Therefore, the null hypothesis is accepted and the alternative hypothesis is rejected.



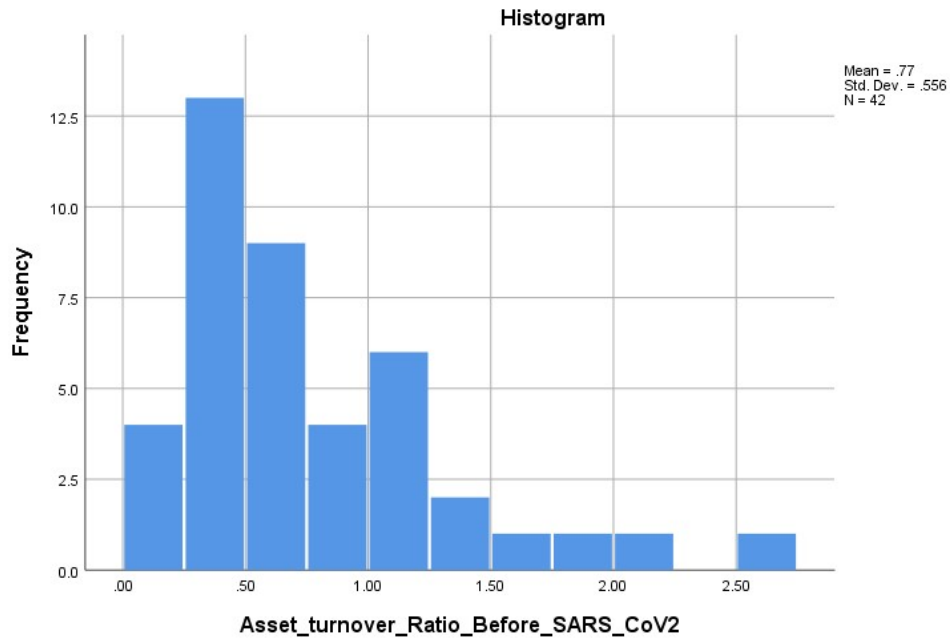
The normal Q-Q plot shows the normal distribution which the observations are perfectly in line. The distribution with a fat tail has both the ends of the Q-Q plot to deviate from the straight line and its centre follows a straight line.



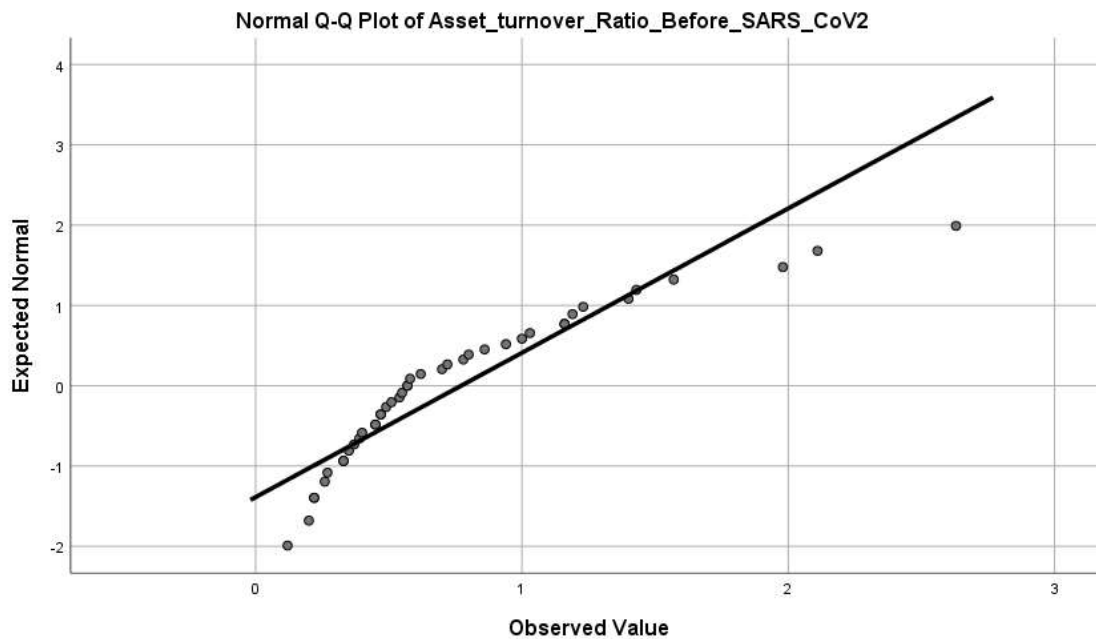
The test of normality of return of asset during the SARS-CoV2 is normally distributed as a result of the both tests with an p level of 0.200 and 0.286 more than the alpha level of 0.05. the histogram shows a distribution with a thin tail. Therefore, the null hypothesis is accepted and the alternative hypothesis is rejected.



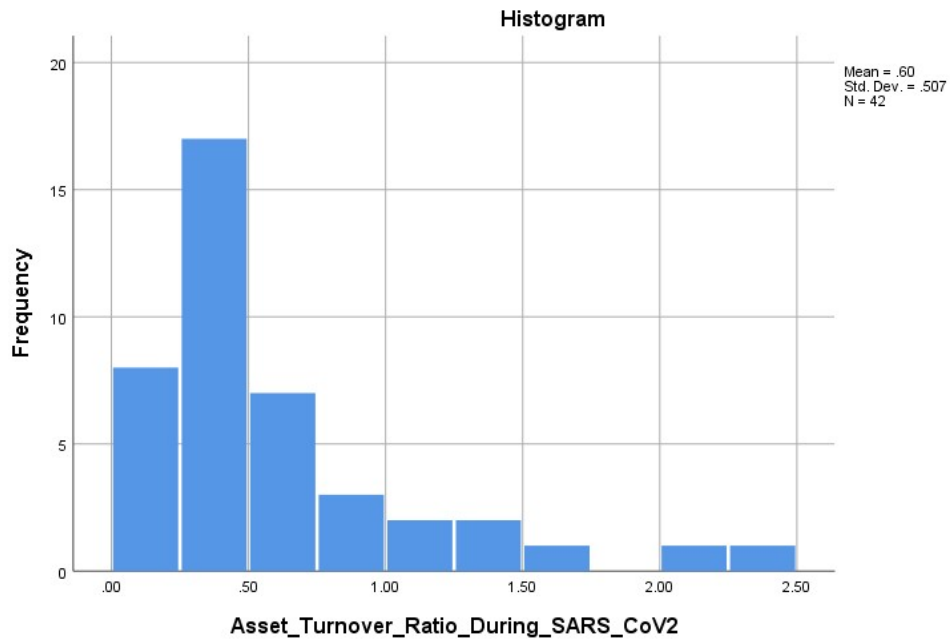
The normal Q-Q plot shows the normal distribution which the observations are perfectly in line. The distribution shows a thin tail. Therefore, a thin-tailed distribution form a Q-Q plot with a very less or negligible deviation at the ends thus making it a perfect fit for the Normal Distribution.



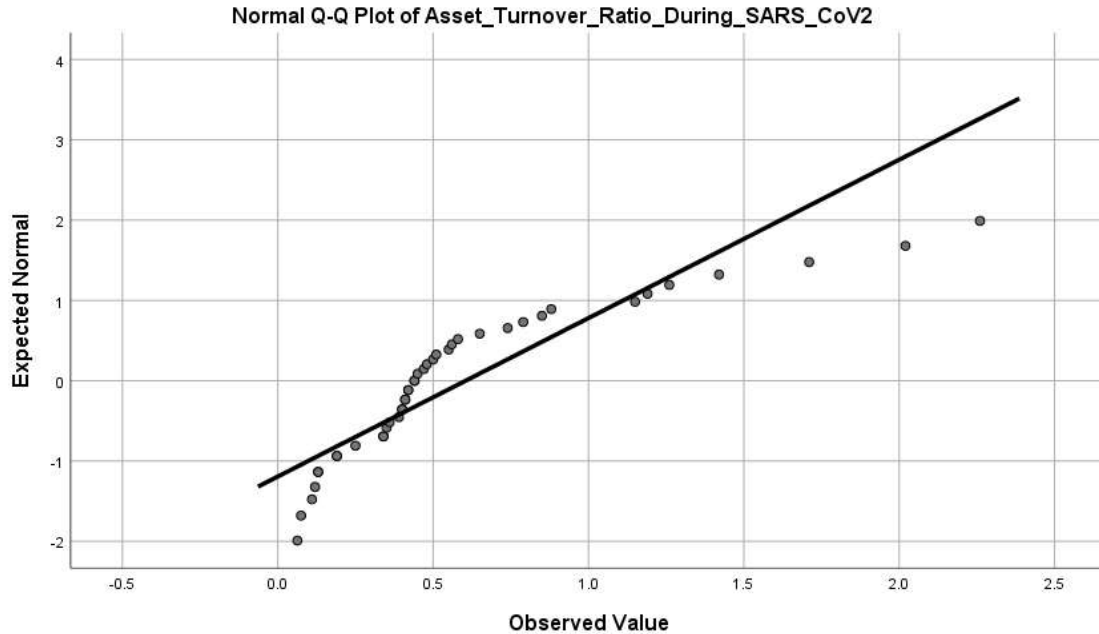
As a result of the normality test the asset turnover ratio before the pandemic is not normally distributed, the p level result 0 is less than the alpha level of 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.



The normal Q-Q plot shows the not normally distribution. The observations are not aligned along the line and the curve has a longer till to its right and it's right-skewed which draw the not normally distribution.



As a result of the normality test the asset turnover ratio during the pandemic is not normally distributed, the p level result 0 is less than the alpha level of 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.



The normal Q-Q plot shows the not normally distribution. The observations are not aligned along the line and the curve has a longer till to its right and it's right-skewed which draw the not normally distribution.

T-test

As a Result, Both the Return of Asset before the SARS-CoV2 and the Return of asset during the SARS-CoV2, follows a normal distribution, i.e., They are under the null hypothesis. Therefore, with a normal distribution, is to be used a parametric statistical test. The T-test is a common type of inferential statistic which is used to determine if there is a significant difference between the means. Furthermore, it is used as a hypothesis testing tool, which allows testing of an assumption applicable to a population (Kim., 2015).

Most test statistics have the form $t = Z/s$, where Z and s are functions of the data.

Z may be sensitive to the alternative hypothesis (i.e., its magnitude tends to be larger when the alternative hypothesis is true), whereas s is a scaling parameter that allows the distribution of t to be determined.

in the one-sample t-test:

$$t = \frac{Z}{s} = \frac{\bar{X} - \mu}{\hat{\sigma}/\sqrt{n}}$$

where X is the sample mean from a sample $X_1, X_2, \dots, X_n$, of size n, s is the standard error of the mean, σ is the estimate of the standard deviation of the population, and μ is the population mean.

The assumptions underlying a t-test in the simplest form above are that:

- X follows a normal distribution with mean μ and variance σ^2/n
- $s^2(n - 1)/\sigma^2$ follows a χ^2 distribution with $n - 1$ degrees of freedom. This assumption is met when the observations used for estimating s^2 come from a normal distribution.
- Z and s are independent.

As a result of T-student table, with an 95% on interval confidence and 41 degree of freedom the critical value is 1.671. The T-value is 0.004 so is smaller than 1.671. The P-value is 0.0907 so larger than 0.05 alpha level. The 95% confidence interval of the difference, the lower is negative and upper is positive so include the value 0. The-test confirmed that the mean of return of asset before SARS-CoV2 is not significant so the null hypothesis H_0 is accepted and the alternative hypothesis H_3 is rejected..

One-Sample Statistics Return of asset before SARS-CoV2

	N	Mean	Std. Deviation	Std. Error Mean
Return_of_ Asset_Before_SARS_CoV2	42	.0650	.06003	.00926

One-Sample Test Return of asset before SARS-CoV2

Test Value = 0.0650						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Return_of_ Asset_Before_SARS_CoV2	.004	41	.997	.00004	-.0187	.0187

One-Sample Statistics Return of Asset During SARS_CoV2

	N	Mean	Std. Deviation	Std. Error Mean
Return_of_Asset_During_SA RS_CoV2	42	.0435	.09616	.01484

One-Sample Test Return of asset During SARS_CoV2

Test Value = 0.0430						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Return_of_Asset_During_SA RS_CoV2	.033	41	.974	.00049	-.0295	.0305

As a result of T-student table, with an 95% on interval confidence and 41 degree of freedom the critical value is 1.671. The T-value is 0.033 so is smaller than 1.671. The P-value is 0.0907 so larger than 0.05 alpha level. The 95% confidence interval of the difference, the lower is negative and upper is positive so include the value 0. The-test confirmed that the mean of return of asset during the SARS-CoV2 is not significant so the null hypothesis H0 is accepted and the alternative hypothesis H3 is rejected.

Wilcoxon Signed-Rank Test

As a result of the test of normality, for the distribution not normally distributed it is to be used a non-parametric test. The Wilcoxon rank-sum test is a non-parametric test which is used to assess and compare two independent samples when the distribution is not normally distributed an to determine if two or more sets of pairs are different from another in a statistically manner (Durango M., 2018). For pairs $i = 1, \dots, N_i$, let $x_{1,i}$ and $x_{2,i}$

H0: difference between the pairs follows a symmetric distribution around zero

H1: difference between the pairs does not follow a symmetric distribution around zero.

The data for a one-sample test is a set of real number samples $X_1, \dots, X_n$. Assume for simplicity that the samples are all different and that no sample equals zero. The test is performed as follows

Compute $X_1, \dots, X_n$:

sort these quantities. Define $R_1, \dots, R_n$ so that $0 < |X_{R_1}| < |X_{R_2}| < \dots < |X_{R_n}|$.

The sgn is the sign function: $\text{sgn}(x)=1$ if $x > 0$ and $\text{sgn}(x) = -1$ if $x < 0$.

the test statistic is the signed-rank sum T :

$$T = \sum_{i=1}^N \text{sgn}(X_i) R_i.$$

Produce a p-value by comparing T to its distribution under the null hypothesis.

The table 1 shows the result of the Wilcoxon signed -rank test. The values of ties of the current ratio and debt to equity ratio both before the SARS-CoV2 and during the SARS-CoV2 is 1. It implies that 1 company has the same value, before and during the SARS-CoV2. Whereas, the asset turnover ratio shows 0 ties which it means there is not same values for the asset turnover ratio. As a result of the mean rank, there are 27 companies which recorded a decrease in the current ratio with a mean rank of 24.85 and 14 companies that increased their current ratio with a mean rank of 13.57. Yet, 8 companies decreased the debt-to-equity ratio with the mean rank of 21.98 and 13 companies experienced an increase on debt-to-equity ratio with mean rank of 18.88. Furthermore, 10 companies have had a decreased on the asset turnover ratio and 32 companies recorded and increased on it.

Table 1 Wilcoxon signed-Rank test results

		N	Mean Rank	Sum of Ranks
Current_Ratio_Before_SAR	Negative Ranks	27 ^a	24.85	671.00
S_CoV2 -	Positive Ranks	14 ^b	13.57	190.00
Current_Ratio_During_SAR	Ties	1 ^c		
S_CoV2	Total	42		
Debt_to_Equity_Before_SAR	Negative Ranks	28 ^d	21.98	615.50
S_CoV2 -	Positive Ranks	13 ^e	18.88	245.50
Debt_to_Equity_During_SAR	Ties	1 ^f		
S_CoV2	Total	42		
Asset_turnover_Ratio_Befor	Negative Ranks	10 ^g	12.30	123.00
e_SARS_CoV2 -	Positive Ranks	32 ^h	24.38	780.00
Asset_Turnover_Ratio_Durin	Ties	0 ⁱ		
g_SARS_CoV2	Total	42		

The table 2 below shows that there is a significant difference in the values of Current ratio, debt-to-equity ratio and asset turnover ratio to which can be seen through the Asymp.sig.(2-Tailed) values of 0.002, 0.017 and 0.0 that are <0.5 which are quite difference between Z value of -3.117, -2.397 and -4.109. Therefore, H1, H2 and H4 are accepted, thus, the null hypothesis H0 are rejected.

Table 2 Test Statistics

	Current_Ratio_Before_SARS_CoV2 – Current_Ratio_During_SARS_CoV2	Debt_to_Equity_Before_SARS_CoV2 - Debt_to_Equity_During_SARS_CoV2	Asset_turnover_Ratio_Before_SARS_CoV2 - Asset_Turnover_Ratio_During_SARS_CoV2
Z	-3.117 ^b	-2.397 ^b	-4.109 ^c
Asymp. Sig. (2-tailed)	.002	.017	.000

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

The impact of SARS-CoV2 by sectors

The tables below show the changes for each sector in the average value of the Current ratio, debt-to-equity ratio, Return of asset and asset turnover ratio before and during the covid 19 outbreak.

The table 1 display the result of the companies belong to the pharmaceutical sector. As a result, there is an increase in the current ratio, from 1.8743-before the SARS-CoV2- to 2.1029- During the SARS-CoV2. Moreover, the average value of the debt-to-equity ratio increased from 1.0857 before the SARS-CoV2 to 1.3271 During the SARS-CoV2. The average value of Return of asset decreased from 6.63% to 6.3% and the average value of the return of the asset turnover ratio recorded a decrease from 0.4686 to 0.4014

Table 1 Descriptive Statistics Pharmaceutical sector

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before_SARS_CoV2_Pharmaceutical_sector	7	.81	2.68	1.8743	.76677
Current_Ratio_during_SARS_CoV2_Pharmaceutical_sector	7	.91	3.26	2.1029	.89059
Debt_to_equity_Ratio_Before_SARS_CoV2_Pharmaceutical_sector	7	.29	2.67	1.0857	.81562
Debt_to_equity_Ratio_during_SARS_CoV2_Pharmaceutical_sector	7	.50	3.47	1.3271	1.05959
Return_of_assets_Before_SARS_CoV2_Pharmaceutical_sector	7	.04	.11	.0663	.02622
Return_of_assets_during_SARS_CoV2_Pharmaceutical_sector	7	.04	.10	.0630	.02020

Asset_turnover_ratio_before _SARS_CoV2_Pharmaceuti cal_sector	7	.33	.58	.4686	.08802
Asset_turnover_ratio_during _SARS_CoV2_Pharmaceuti cal_sector	7	.25	.50	.4014	.07471
Valid N (listwise)	7				

The table 2 shows the result of the companies belong to the chemical sector. As a result, there is an increase in the current ratio, from 2.3829-before the SARS-CoV2- to 3.3757 - During the SARS-CoV2. Moreover, the average value of the debt-to-equity ratio increased from 0.3427 to before the SARS-CoV2 to 0.4663 During the SARS-CoV2. The average value of Return of asset increased from 9.93% to 11.93% and the average value of the return of the asset turnover ratio recorded an increase from 0.8329 to 0.7686

Table 2 Descriptive Statistics chemical sector

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before_SAR S_CoV2_Chemical_sector	7	1.32	4.00	2.3829	1.02423
Current_Ratio_during_SARS _CoV2_Chemical_sector	7	1.35	7.72	3.3757	2.43389
Debt_to_equity_Ratio_Befor e_SARS_CoV2_Chemical_s ector	7	.00	.73	.3427	.28760
Debt_to_equity_Ratio_Durin g_SARS_CoV2_Chemical_s ector	7	.01	1.16	.4663	.38922
Return_of_assets_Before_S ARS_CoV2_Chemical_secto r	7	.02	.20	.0993	.06278
Return_of_assets_During_S ARS_CoV2_Chemical_secto r	7	.02	.25	.1193	.07724
Asset_turnover_ratio_before _SARS_CoV2_Chemical_se ctor	7	.12	1.98	.8329	.60235

Asset_turnover_ratio_during _SARS_CoV2_Chemical_se ctor	7	.36	2.02	.7686	.58687
Valid N (listwise)	7				

The table 3 display the result of the companies belong to the hospitality sector. As a result, there is an increase in the current ratio, from 1.02-before the SARS-CoV2- to 1.1086- During the SARS-CoV2. Moreover, the average value of the debt-to-equity ratio increased from 1.4557 before the SARS-CoV2 to 2.3981 During the SARS-CoV2. The average value of Return of asset decreased from 1.89% to -2,47% and the average value of the return of the asset turnover ratio recorded a decrease from 0.7900 to 0.3640.

Table 3 Descriptive Statistics hospitality sector

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before_SAR S_CoV2_hospitality_sector	7	.27	2.69	1.0200	.82335
Current_Ratio_during_SARS _CoV2_hospitality_sector	7	.33	1.76	1.1086	.46384
Debt_to_equity_Ratio_Befor e_SARS_CoV2_Hospitality_ sector	7	.08	3.80	1.4557	1.33369
Debt_to_equity_Ratio_Durin g_SARS_CoV2_Hospitality_ sector	7	.07	6.07	2.3981	1.94964
Return_of_assets_Before_S ARS_CoV2_Hospitality_sect or	7	-.04	.06	.0189	.03850
Return_of_assets_During_S ARS_CoV2_Hospitality_sect or	7	-.07	.03	-.0247	.04059
Asset_turnover_ratio_before _SARS_CoV2_Hospitality_s ector	7	.22	1.43	.7900	.52070
Asset_turnover_ratio_during _SARS_CoV2_Hospitality_s ector	7	.06	.85	.3640	.28601

Valid N (listwise)	7			
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The table 4 display the result of the companies belong to the consumer goods sector. As a result, there is an increase in the current ratio, from 0.9043-before the SARS-CoV2- to 0.9257- During the SARS-CoV2. Moreover, the average value of the debt-to-equity ratio decreased from 1.50 before the SARS-CoV2 to 1.3943 During the SARS-CoV2. The average value of Return of asset decreased from 8.54% to 8.27% and the average value of the return of the asset turnover ratio recorded a decrease from 0.7729 to 0.7657.

Table 4 Descriptive Statistics consumer goods

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before_SAR S_CoV2_Consumer_goods_ sector	7	.56	1.76	.9043	.42723
Current_Ratio_During_SAR S_CoV2_Consumer_goods_ sector	7	.60	1.60	.9257	.36087
Debt_to_equity_Ratio_Befor e_SARS_CoV2_Consumer_ goods_sector	7	.70	2.54	1.5000	.64962
Debt_to_equity_Ratio_Durin g_SARS_CoV2_Consumer_ goods_sector	7	.70	2.18	1.3943	.50395
Return_of_assets_Before_S ARS_CoV2_Consumer_goo ds_sector	7	.02	.13	.0854	.04027
Return_of_assets_During_S ARS_CoV2_Consumer_goo ds_sector	7	.00	.14	.0827	.04514
Asset_turnover_ratio_before _SARS_CoV2_Consumer_G oods_sector	7	.20	1.40	.7729	.46818
Asset_turnover_ratio_During _SARS_CoV2_Consumer_G oods_sector	7	.19	1.26	.7657	.43806
Valid N (listwise)	7				

The table 5 display the result of the companies belong to technology sector. As a result, there is an increase in the current ratio, from 1.1414-before the SARS-CoV2- to 1.59 - During the SARS-CoV2. Moreover, the average value of the debt-to-equity ratio increased from 0.2191 before the SARS-

CoV2 to 0.2466 During the SARS-CoV2. The average value of Return of asset decreased from 6.45% to 6.85% and the average value of the return of the asset turnover ratio recorded a decrease from 0.9271 to 0.84.

Table 5 Descriptive Statistics technology sector

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before_SARS_CoV2_technology_sector	7	.29	1.81	1.1414	.50327
Current_Ratio_During_SARS_CoV2_technology_sector	7	1.01	2.87	1.5900	.63367
Debt_to_equity_Ratio_Before_SARS_CoV2_technology_sector	7	.00	.50	.2191	.19163
Debt_to_equity_Ratio_during_SARS_CoV2_technology_sector	7	.04	.60	.2466	.20810
Return_of_assets_Before_SARS_CoV2_technology_sector	7	-.04	.22	.0645	.08392
Return_of_assets_During_SARS_CoV2_technology_sector	7	-.03	.31	.0685	.11713
Asset_turnover_ratio_before_SARS_CoV2_technology_sector	7	.22	2.63	.9271	.87156
Asset_turnover_ratio_during_SARS_CoV2_technology_sector	7	.12	2.26	.8400	.74541
Valid N (listwise)	7				

The table 6 display the result of the companies belong to the travel sector. As a result, there is an increase in the current ratio, from 0.9171-before the SARS-CoV2- to 1.0386- During the SARS-CoV2. Moreover, the average value of the debt-to-equity ratio increased from 0.6277 before the SARS-CoV2 to 0.7392 During the SARS-CoV2. The average value of Return of asset decreased from 11.29% to -5.73% and the average value of the return of the asset turnover ratio recorded a decrease from 0.84 to 0.4886.

Table 6 Descriptive Statistics travel sector

	N	Minimum	Maximum	Mean	Std. Deviation
Current_Ratio_Before_SARS_CoV2_travel_service_sector	7	.58	1.28	.9171	.23859
Current_Ratio_During_SARS_CoV2_travel_service_sector	7	.67	1.66	1.0386	.37307
Debt_to_equity_Ratio_Before_SARS_CoV2_travel_service_sector	7	-.05	1.63	.6277	.68182
Debt_to_equity_Ratio_During_SARS_CoV2_travel_service_sector	7	.03	1.81	.7392	.68145
Return_of_assets_Before_SARS_CoV2_travel_service_sector	7	-.10	.60	.1129	.22248
Return_of_assets_During_SARS_CoV2_travel_service_sector	7	-.17	.03	-.0573	.08340
Asset_turnover_ratio_before_SARS_CoV2_travel_service_sector	7	.37	2.11	.8400	.59037
Asset_turnover_ratio_During_SARS_CoV2_travel_service_sector	7	.11	1.71	.4886	.56534
Valid N (listwise)	7				

Analysis and Discussion

The descriptive analysis result shows that the profitability ratio(Return of asset) decrease in the average value. However, The T-test shows that H3 is rejected and the null hypothesis H0 is accepted which means that there is no significance difference in the profitability ratio (Return of Asset) before

and during the SARS-CoV2. Instead, both the liquidity ratio (Current asset) and leverage ratio (Debt-to-equity ratio) shows an increase in the leverage value, and the efficiency ratio a decrease (asset turnover ratio). Therefore, the Wilcoxon signed-rank test display that H1, H2 and H4 are accepted so there is a significant difference in the liquidity ratio, efficiency ratio and leverage ratio. The result in previous section showed that there was a huge impact on the business performance of the company which are based on the UK market. In particular, it's resulted a huge increase on the debt as confirmed by the EY accountancy firm which as a result of the prolonged of both pandemic restriction and a high infection rate of covid 19, the rise in borrowing from the banks was by £26 Billion as much as 17 billion more than 2019 (EY., 2020). The increase of the debt is due to an impact on the total revenues of the companies. Safta et al (Safta., 2021) noted that the total net profits decreased by 37.43% in the middle of 2020 compared with the 2019 by having a slump of 13.86% on the total sales of the market. The decrease in profit had a huge impact on the profitability which in turn had an impact on the operational costs. On top of that, the decline on the ability to generate profit is explained by the slumped of Return of asset during the pandemic which in turn decreased the asset turnover ratio. However, the current ratio showed an increase which it may be due to a lower impact of covid pandemic in the short-term. The descriptive analysis showed the changes in the value for each sector in term of liquidity, leverage, profitability and efficiency. The pharmaceutical sector shows a huge amount of liquidity mostly during the pandemic. This is due to an increase of demand in drugs and health products owing to the pandemic. Indeed, products including PPE, ventilators, hand sanitiser have seen pronounced spikes in demand. (UK Parliament., 2020). The debt-to-equity ratio display an increase which in the long-term perspective may be seen as a risk. However, the current ratio has increased, it means that the companies of the pharmaceutical sector resulted healthier even during the pandemic. Therefore, according to Modigliani and miller an increase in debt it doesn't meant that the companies are at risk, but the debt can be used to finance the investments and the growth so that to generate more earnings due to the tax shield (Modigliani F., 1958) On top of that, both the return of assets and the asset turnover ratio result similar both before the SARS-CoV2 and During the SARS-CoV2. Nonetheless, this implies that the companies have kept their efficiency- during the pandemic- in generating earnings from their economic resources (Asset). As a result of the office for national statistics, the chemical sector grew up of 35.5% between February 2020 and February 2021 (Office national statistics., 2021). The financial performance resulted steady with a small increase in the debt-to-equity ratio. The return of asset shows a huge profitability and efficiency to which the chemical sector had during the pandemic due to the huge amount of demand. The consumer goods sector which included food and beverage, tobacco manufacture, pharmaceuticals, cosmetics, and houseware experienced a surge in the financial performance mostly during the pandemic owing to the high demand which it was during the period of March- April 2020 (O'connel., 2020). Indeed, this sector include primary and basic-necessities such as food and beverage as well as houseware and cosmetics. As a result, the debt-to-equity ratio shows a decreased during the peak of the pandemic which, in turn, matches with a huge amount of revenue. On the other hand, the return of asset has kept a high-level even during the pandemic about 8.5% which means, thus, greater efficiency and a lower level of debt. Yet, the same situation is for the technology sector. During the pandemic, more people than ever before going online. According to the department for digital, culture, Media & sport, the UK's tech industry is one of the fastest growing parts with a 40 per cent increase in revenues in the past year - reaching £314 million - and a 30 per cent increase in jobs, equating to more than 500 new roles. (UK Government., 2020). Furthermore, the covid 19 pandemic drove the people to use technology more for communications, general engagement, work and school. The average of hours online in the UK was four hours per day in April 2020 up from three hours a day in September 2019. (Tech Nation., 2021). As a result, the business performance of tech sector has kept

a stable level during the pandemic by catching a soar on the profits mostly during March- May 2020. (Tech nation, 2020).

The most sectors which have affected heavily by the Covid 19 outbreak are hospitality, tourism and the travel service sector. In the second quarter 2020 overseas residents made 96% fewer visits and spent 97% less than in Quarter 2 2019 (Office For National Statistic., 2020). Indeed, International passenger arrivals fell from 6.8 million in February 2020 to 112,300 million in April. On top of that, the hotel occupancy slumped about 90% as well as the awful impact on the restaurants. The financial performance which has resulted on the analysis confirmed such data. The hospitality sector shows a huge increase of the debt-to-equity ratio during the pandemic which has impacted on profitability by putting down the return of asset of -2.47%. Moreover, this is also confirmed by degrowth of current ratio during the pandemic. Finally, the travel sector displayed a whopping impact from the pandemic in terms of financial performance. The debt-to-equity ratio, the current ratio and the asset turnover ratio resulted stable. However, the return of asset shows a huge decrease of -5.73% owing to the impact of the pandemic on the short-term. The result of this study support Devi (Devi., 2020) which stating that the business sector most affected by the pandemic are those which rely on tourism, hotels, restaurant and travel sector which the sales depending on the public saving funds. Furthermore, Shen (Shen., 2020) confirmed in an analytical analysis the negative impact of SARS-CoV2. The study found that the Covid 19 outbreak had a negative impact on the financial performance of the Chinese company in the first quarter of 2020, mostly, tourism, travel and hospitality.

Recommendation

A shock economic refers to any change of variables macroeconomics or relationship which has the effect on economic performance by provoking unemployment, consumption and inflation. The impact of SARS-CoV2 has had a dramatic effect on the society which has disrupted lives, livelihoods, communities and businesses worldwide. The businesses have been devastated. Therefore, the most of businesses will have to find a balance which allow them to prosper in the post covid 19. The pandemic has led to an acceleration of new technologies which will change the world of work and the human behaviour. According to Mckinsey (McKinsey., 2020), The COVID-19 pandemic has put businesses through rigorous strategic-resilience tests. Therefore, the crisis exposed weaknesses in the resilience of the companies even before the Covid 19 outbreak which call the firms to take fast, bold action to make up for lost ground and to have more adaption in the next decades which is expected an enormous change on the business strategy. The pandemic kicked off at new digital era so-called the fourth industrial revolution (It is characterized by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human) and has highlighted the digital solution for every business. (Schwab., 2020). On top of that, the companies need a new approach to financial planning as well as the performance management to guide the organization and business through the worst of the crisis and develop a plan to cope the crisis and to find the opportunity as a starting point subsequently the crisis (McKinsey., 2020). During the crisis the cash-flows are stressed but that is the moment to more risks. According to Harvard Business Review, the most successful companies, during a crisis, should invest more than 90% of net spending to other segments or new opportunity which may drive with higher growth and returns. (Micheal., 2020). Therefore, a crisis may offer an opportunity for a new competitive position. Furthermore, to avoid an ugly scenario, the governments should support the worst-hit companies in form of financial support such as loans, subsidies so that to allow them to stand on their feet. (Rababah., 2020) The disruption by COVID-19

is accelerating the adaptability and transformation by disrupting Industry structures and business models which in turn the digitalization of the economy is being rapidly accelerated. According to the World economic forum, an estimated 70% of new value created in the economy over the next decade will be based on digitally enabled platform business models. However, 47% of the world's population remain unconnected to the internet (World Economic Forum., 2020).

According to the G30 Group, the Covid 19 is changing the business operation and it is triggering a corporate solvency crisis in the rich countries. The report states that the policymakers need to act urgently to strength the business sector. Furthermore, the difficult to predict the duration of the pandemic make hard to determine an analysis on the long-term. Therefore, the G30 Group stated a set of principles which the business can refer to adapt themselves with the new normal. In particular, the business must focus on the long-term health of the corporate sector: focus on the most productive use of resources as well as a focus to preventing collateral damage. Further, the report states an important point which the business should take in consideration, i.e., the businesses should adapt to the new business realities, rather than to keep their status quo. Yet, is better for businesses to increase the equity funding and limit the debt so that to have a greater growth. indeed, the governments should incentives healthier business to increase their equity so that to generate investments to avoid the collapse. (Group of thirty., 2020)

CONCLUSION AND LIMITATION

The Covid 19 Pandemic has had a serious impact for the society, health's people and the mostly of the economy's world. The global COVID-19 pandemic has changed our experiences—as customers, employees, citizens, humans as well as attitudes and behaviours. In 2020, Covid 10 struck all countries around the world by leading the governments to operate in a context of radical uncertainty and dealing with economic and social challenges. The lockdown and social distancing have slumped the global GDP about 3% by making the nature of this crisis unprecedented. The crisis is changing and accelerating the changes in the consumer goods and it's shaping the future of business to which must adapt their business models and reimagine their strategies mostly digital. Indeed, the pandemic can be considered a trojan horse to accelerate the digital commerce and make more investment in new technologies such as artificial intelligence and new communication systems. The coronavirus outbreak is continuing its spread around the world and might impact the economy still for years. In this study it was analysed the influence of the Impact of the SARS-CoV2 on the financial performance of the firms listed on the London stock exchange. The main aim of this study is to analyse and evaluate in various sectors on the London stock exchange the impact of the pandemic-provoked by SARS-CoV2- on the business performance. Therefore, it was used a small panel data of 42 companies of different sizes (big and small) listed on London stock exchange. The conclusion of this research is that there was an increase in the liquidity and debt-to equity ratio but a decrease in

the profitability and efficiency ratio during the SARS-CoV2 outbreak pandemic. As a result of the descriptive statistic, there was no significance difference in the profitability, but there was a significant difference in the leverage, liquidity and efficiency ratio. Thus, the study confirmed the huge impact of the Covid 19 pandemic on the financial performance of the firm. On top of that, the sectors which had a harsher impact on the financial performance are hospitality & leisure and travel service resulted with a high-debt and a negative profitability by resulting with a negative return of asset. However, the technology, pharmaceutical and consumer goods experienced an increase in profitability owing to the high demand that it was during the peak of the pandemic. The study's result can be useful to the investors to make an investment decision during the period of crisis. However, this study may result limited as investigates a small sample of some companies belong to different sectors and not investigates an in-depth analysis through a larger sample. Furthermore, the pandemic is still ongoing, therefore, this research might be considered in a short period of time and not in the long term due to the limited financial data at the time of the study. Hence, the SARS-CoV-2 might affect the world economy for years, therefore, it should be carried out further analysis of the future impact of it on the financial performance of the firms going forward.

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