Global Scientific JOURNALS

GSJ: Volume 10, Issue 2, February 2022, Online: ISSN 2320-9186
www.globalscientificjournal.com

AN EVALUATION ON THE IMPACT OF COVID-19 IN THE FINANCIAL PERFORMANCE OF TELECOMMUNICATION COMPANIES IN OMAN (OMANTEL AND OOREDOO)

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Abstract

The COVID-19 pandemic has had major adverse impacts on most of the industries and commercial sectors across the globe. In light of this, the following research aims to determine the depth of its impact on the telecommunication sector in Oman, by assessing the effects on the financial performance of the two major telecom companies in the country, that is, Omantel and Ooredoo. The impact of leverage and liquidity on these companies' finances of the past five years has also been studied. The major sources of information are secondary in this study, including the audited financial reports for the firms and other research sources. The information from these sources has been analysed qualitatively and quantitively. The finances of the companies have been put through ratio, statistical and descriptive analyses. The tool 'E-VIEWS' was used for the same. It was observed that despite the pandemic, there was no significant impact on these companies and their financial performance. Further, strategic resolutions have been provided in the research, and there is scope for future comparative studies in the same sector, with the long-term impacts of the COVID-19 pandemic.

Keywords: Financial Performance, Profitability, Liquidity, Leverage, ROE, ROA, D-T-E, DR, CR, QR

Introduction

The Communication via virtual means has become necessity of the current times. People from all over the world share plethora of information through the help of telecom companies. These companies in general comprise of data-transmitting infrastructures and technologies such as Internet Service Providers (ISP), broadcasting (Radio and Television), mobile phones, landlines, and microwave etc. This sector, especially supports and facilitates the information sharing platforms and serves as an important industry throughout the world. Any breakdown on a national or international level in this sector can cause major collapse for other sectors integrated with the mentioned systems. Pandemic restrictions due to the COVID-19 pandemic caused uncertainty in almost every type of industry all over the world. Some industries faced severe consequences such as a rapid depletion of resources and stunted growth, while others managed to benefit from this pandemic as their market grew. The telecom sector, surprisingly, reaped unexpected benefits of the pandemic. Due to travel restrictions and lockdowns, nearly all industries and sectors moved to virtual platforms, and work from home was a new trend, an inevitable result of the circumstances. This new trend led to increase in the demand for 'networking infrastructure and connectivity' (pwc, n.d.).

According to Hornsby (2021), in terms of the impacts of the pandemic on this sector, there has been a rise in the need for unified communications, and the greater demand for services has led to the growth experienced by many telecom companies. In addition to that is the fact that with workers moving away from urban and hyper-urban areas, telecom companies have invested in geographical growth as well, in terms of their networks and services. Although, the pandemic wreaked havoc in the financial sector for a majority of the companies, the impact it had on the telecom sector was slightly different. This report takes a look at the Omani Telecom sector, and studies and evaluates the financial performance of the telecom sector in detail, taking into consideration the two major telecom giants: Omantel and Ooredoo. Both of these providers are registered with Muscat Securities Market and are Public.

Research Questions

- What are the implications of COVID-19 on business in terms of finances?
- How did the demand change in the telecommunication sector during COVID-19?
- What are major differences between pre- and post-COVID-19 financial reports of Omantel and Ooredoo?
- How can the telecommunication sector strategically resolve and improve their current financial performance?

Research Objectives

- To understand the implications of COVID-19 to Ooredoo and Omantel's financial performance.

- To study the demand of the telecommunication sector affected due to COVID-19.
- To evaluate the financial reports of Omantel and Ooredoo, pre- and post-pandemic.
- To provide strategic resolutions to the telecommunication sector in improving their financial performance.

Statement of the Problem

The purpose of this research is to analyze how COVID-19 has affected the telecom sector in Oman, on the financial performance in particular.

COVID-19 has disrupted business operations worldwide and the telecom sector is one of the main sectors to have come in its way. Whilst the demand for the telecom services increased, the need to upgrade servers, optic fibers and more increased as well. Consequently, the expenses and overheads exponentially skyrocketed. What this project hopes to achieve is to, firstly, evaluate the net financial effect COVID-19, and secondly, to offer strategic resolutions as to how the telecom sector can further flourish and cope with this new change.

Review of Literature

The chapter discusses the main elements involved in the research of the subject, exploring in-depth the particulars and their background. Effects of COVID-19 on major sectors, in detail analysis of financial performance of the telecommunication sector, and the theoretical framework involved in the analysis of the financial performances subject to leverage, profitability and liquidity of Telecom Sector are also discussed below.

Sudden effects of unforeseen pandemic on the global market along with the financial performance of the local telecom sector trend influenced by the outbreak is also part of this chapter.

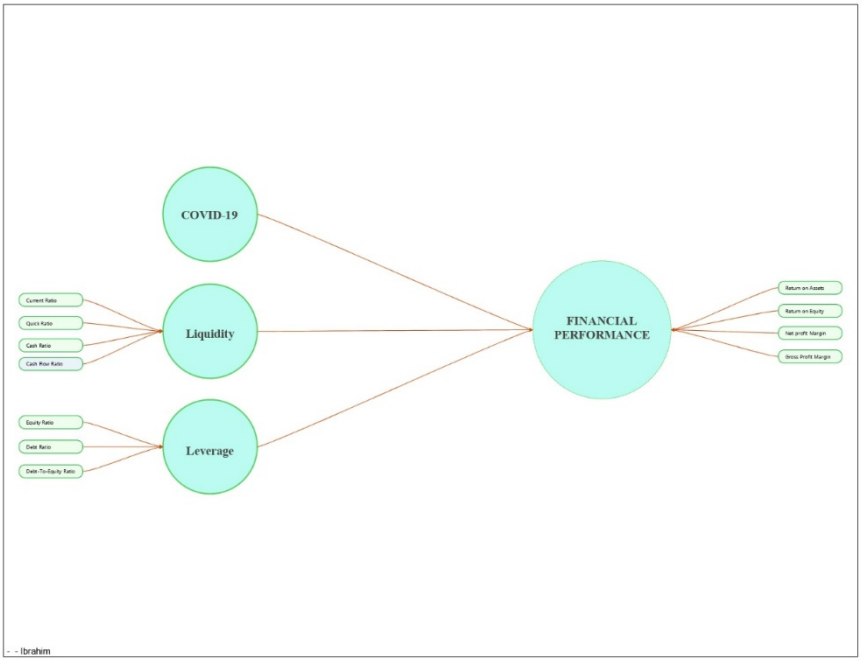


Figure 2.1 Theoretical Framework of the Study

The theoretical framework above shows the way the research is structured. It shows the factors influencing financial performance, which are liquidity, leverage and the COVID-19 pandemic. The diagram further shows that these parameters are measured using certain tools. For one, liquidity is measured using the current ratio, quick ratio, cash and cash flow ratio. Secondly, leverage is measured using the debt, equity and debt-to-equity ratios. The effects of the pandemic are measured via these, and qualitatively. In addition to that, the profitability ratios will also be used for the performance measurement, which are, return on assets, return on equity, net profit margin and the gross profit margin. All of these ratios will be calculated and analyzed to achieve the aims of this project. Hence, the ratios will be used to measure and evaluate financial performance.

Implications of COVID-19 on Businesses

The pandemic which began early 2020, brought the world to a standstill. Such a major occurrence of an event was never predicted ever before. Economies all around the world were disturbed to extreme extent, causing extensive financial damages to businesses of all scales. Back-to-back lockdowns, curfews, movement bans, and travel restrictions led to great losses in businesses which were basically depended on direct or indirect engagement of customers.

The effects of the pandemic on businesses gradually intensified within the initial months and with development of new variants, deteriorated. It was not until the introduction of the vaccine which managed to lower down the consequences. Even then, the sigh of relief in underdeveloped countries was a long shot.

When seen on a macro level, Aviation, Tourism, Hospitality, Construction, and Transport industries were the

most affected ones due to the pandemic. This included the decline in sales, negative growth, furlough of employees, close down of innumerable businesses. In addition to that, the crisis also led to changes in supply chains and market situations, knocking entire industries off-kilter, and has led to company leaders having to persevere in the face of shaky liquidity and declining growth (Accenture, 2020).

The Impact of the Pandemic on the Global Economy:

When the crisis hit in early 2020, the consequences on the economy were uncertain but as the situation progressed for the worst, the intensity was through the charts. With dramatic fall in the global stock markets across where Dow Jones losing 3,000 points, and major global economies losing around 3.4% of their GDP's and inflation rising.

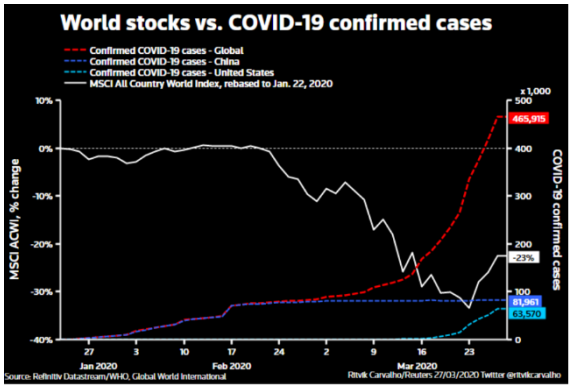


Figure 2.2 World Stocks vs Rising Corona Virus Cases (Reuters, 2020)

In figure 2.2, the data issued by Morgan Stanley of All Country World Index of first three months of 2020 shows that initially the market did not fluctuate to the COVID scare but as the cases started to rise, the market started to perform poorly. With speculated origin of COVID from China, the major economies of the world such as China and United States showed the same trend of sharp decreases in stock valuations and a trend towards degrading economies.

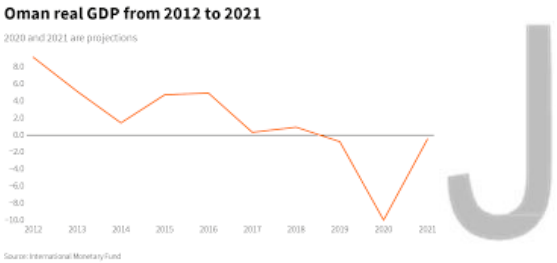


Figure 2.3 GDP growth for Oman from 2012 to 2021 (Barbuscia, El Yaakoubi & Barrington, 2020)

Oman, as other countries around the world, was not spared of the grave financial consequences of the unfortunate pandemic. Where a dip in crude oil prices was already affecting the economy, sudden halt in the economy brought further blow and led to worsening of the situation. More or less, the local economy saw the same trend as of international market with main sectors involving O&G exports, manufacturing, hospitality and tourism and logistics and transportation getting the direct hit (Barbuscia, El Yaakoubi & Barrington, 2020).

The Impact of the Pandemic on Oman's Economy:

In 2020, debt within Oman's central government reached to 81.2% of the GDP and was possibly covered by local and international borrowing with additional asset drawdowns. The percentage is suggested to decrease to 71% in the year 2021 with the estimates provided by IMF. (Reuters, 2020). According to IMF, there was a shrink of 6.4% in the economy in the year 2020. (Al Arabiya, 2020). The government in the second quarter of 2020, prepared a plan to balance the budget, which focused on lessening the government spending by taking several reforms within the government framework. The pandemic effects slowly started to permeate the economy and brought visible effects in draining the liquidity from the private industry (Al-Arimi, 2021).

The government keeping all these into considerations, presented a 'economic stimulus plan' in the first quarter of 2021 which will work its way in the providing exemptions from tax, facilities from banking sector and preferable measures for diversification of economy sectors.

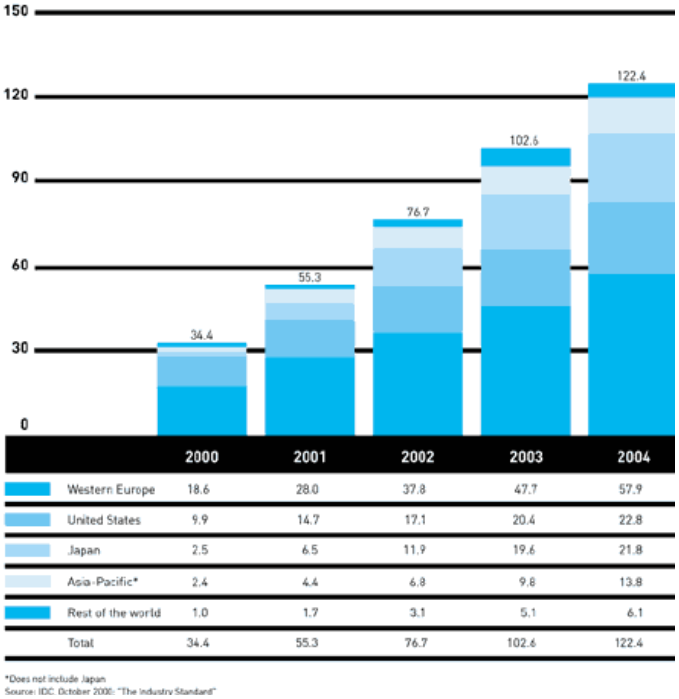
Demand of telecom sector pre- and post-COVID-19

Telecommunication Sector:

Fast communication has become an integral part of the businesses around the world. With constant technological advancements happening in the telecom field, it has given a smooth and reliable look to the telecommunication sector. This specific sector comprises of various sub-sectors which includes various communication means such as internet, telephone, and executed with wires and wirelessly (Beers, 2021).

Through telecommunication sector, there has been an extensive ease and facilitation in sharing of information,

data, knowledge and media for all kinds of purpose. Businesses depend on telecom sector to keep up with the global trends, stock markets rely on it for buying and selling of stocks, and banks facilitate their transactions and processes through particulars of telecom sector.



	2000	2001	2002	2003	2004
Western Europe	18.6	28.0	37.8	47.7	57.9
United States	9.9	14.7	17.1	20.4	22.8
Japan	2.5	6.5	11.9	19.6	21.8
Asia-Pacific*	2.4	4.4	6.8	9.8	13.8
Rest of the world	1.0	1.7	3.1	5.1	6.1
Total	34.4	55.3	76.7	102.6	122.4

*Does not include Japan
Source: IDC, October 2000: "The Industry Standard"

Figure 2.4 Online Banking Customers (Rosingh, Seale & Osborn, n.d.).

Financial sectors have enormously benefitted from the applications of telecom sector. Figure 2.4, represents the rise of online banking customers through start of 2000's. With advancements in telecom industry, banking sector saw an increase of 86 million customers in US, only in the span of 4 years. This shows the great potential of telecom sector and its influence on other industries.

The impact of changing demand on the Telecom sectors financial performance

In order to fulfill the purpose of the communication the telecom signals are transmitted over the wide range of distances with the help of the modern technology. The increase demand for the telecom sector has made it broader than it used to be. The telecom industry has very deep impact on the social, economic, and cultural aspects of the modern-day society. According to Plunkett Research Limited (2010), the telecom industry is growing with the fastest pace in terms of its expansion. With the high demand of telecom sector across the world , financial performance of this sectors is also being impacted. The high demand in the telecom sector across the globe is also impacts the telecom industry's financial performance. After the pandemic BEREC confirmed an escalation in the demand for fixed and mobile networks. A prime example of this is Vodafone that showed surge of over 50% in its demand. Similarly, Spain and Italy also showed an increase of 30% increase in its mobile and broadband users. However, some companies showed a downward trend for the mobile data (Houpis, Davies and Ovington, n.d.).

The demand for the telecommunication services, mobile network operators and internet service providers, experienced increase in short term revenue due to increase usage that has resulted from the pandemic, according to the International Finance Corporation(n.d.), it is further stated that there would reductions in retail revenue via Post but those were redirected to online channels. Lastly, it is forecasted that revenues would be affected by foreign exchange due to the direct financial risk.

Financial performance and Liquidity

The ability of an organization to meet its short-term fund needs in known as the liquidity position for that respective firm. If the firm relies on short term fund needs through its current assets rather than the external debt, it is considered to be more profitable (Ahmad 2016). We can thus analyze the financial performance of any firm by looking at how its liquidity managed (Bardia 2004). In 2018, a study was conducted by Ali and Bilal where they found out that both the liquidity and the profits of a firm are directly proportional. The same results were obtained by studies conducted by Ali et al. (2018) and Ehiedu (2014) in Jordon and Nigeria. The return on assets (ROA) and return on equity (ROE) were used to calculate the profitability in a study conducted by Madushanka and Jathurika in 2018 in Kenya and Sri Lanka. However, contrary to this in 2017, according to Jepkemoi there is no positive relationship between the return on assets (ROA) and return on equity (ROE). Thus, a lot of different studies were conducted using these two indicators to examine liquidity.

Ramlan and Nodin (2018) and Zaid et al. (2014) found a direct or positive relationship with the financial performance which is measured by return on assets (ROA). This study was conducted in the Malaysian context. However, in 2020 Muhammad et al disagreed with this study and concluded that liquidity is not the only indicator to see the profitability of a firm. Noor and Lodhi who conducted their research in 2015 on a selected sample in Karachi found concluded the same. Rehman et al., in his study conducted in 2015, also said that there is no positive relationship between return on assets (ROA) and liquidity. He further reveled that return on equity (ROE) also has no significant relationship with liquidity. Contrary to this, the finding of Priya and Nimalathasan conducted in Sri Lanka in 2013 clearly said that there was negative relationship between profitability and liquidity.

All in all, some authors like Cinantya & Merkusiwati (2015), Oktasari (2020), Rohmadini et al (2018) reveal that liquidity does not disturbs the financial performance. Oktasari (2020) has this view because, because according to this author firms use its current assets to finance its liabilities, thus financial loss is not experienced by liquidity. Furthermore, according to Wahono at al. (2017) and Curry and Banjarnahor (2018) there is negative effect of liquidity. On the other hand, Bunn and Redwood (2003) and Almansour (2015) say that there is no significant impact of liquidity on financial distress. Many studies agree to the argument that the more liquid the firm is the less the chances are of it getting bankrupted, however many studies disagree to this.

Financial performance and profitability

Profitability can be defined as the extent to which a business is garnering profit or income through its business operations (Dai, 2016). Additionally, a business' profitability also gives an indication of the company's future prospects. Houston (2010) believes that profitability and financial performance have a direct association with one another as both terms are interchangeable. Whilst profitability is the amount of profit a company is earning, the financial performance of a company is a mere reflection of that. If a 5usinesss is profitable, it directly means that it has a good financial performance. This is because profitability ratios include ratios like return on assets, return on equity, net profit margin and more. All this takes into account some major elements from a company's financial statements and hence, that is why they are deemed enough.

On the other hand, Van Horne (2005) writes in his study that whilst a company's profitability might make up a good portion of its financial performance, it is not the entirety of it. A company's liquidity and leverage play just as much of an important role in the financial performance as profitability does. McMillan and Schumacher (2003) are also of a similar opinion as they believe that profitability ratios only show income and expenses for a specified period of time and hence, that alone is not enough to deem a company's financial performance. Bringing other ratios into play allows one to take the overall long-term mission and outlook of the business into account. Jennings and Beaver, 1997 also claim that profitability disregards any risks and that is why it alone is not a good measure of financial performance.

Financial Performance and Leverage

The extent to which an organization use its borrowings to grow or increase its profitability is known as leverage (Alkhatib, 2012). The agency costs can be increased if the firm is highly leveraged, however the advantage is that the firm's performance can be improved. Thus, an organization's value can be positively or negatively be affected by the leverage. The returns can increase but the risk can increase as well (Ivo & Anyanwaokoro, 2019). A study conducted by Barclay, Smith and Watts in 1995 in fact showed positive relationship between leverage and debt ratio as well as leverage and profitability – ROA and ROE. Khatab et al. who conducted his study in Pakistan in 2011 also revealed positive relationship. Same is the case with Nadeem et al. who conducted his research in 2015 and also found a positive and an important relationship between ROA, ROE with debt-to-equity ratio. Rehman on the other showed a negative relationship with ROE while a positive correlation with ROA in his study conducted in 2013. Contrary to this Nguyen et al (2019) study conducted in 2019 in Vietnam showed a positive relationship with ROE while a negative correlation with ROA.

Yoon and Jang (2005) stated negative relationship between leverage and profitability. This in other words mean that if the firm runs more on debts, then it is less profitable. Kaumbuthu's (2011) study was also an extension of that carried out by Yoon and Jang as he too found financial performance and leverage to have opposite impacts on one another. Recently, some studies have actually gone on to show that there is actually no link between these two entities at all – leverage does not impact financial performance at all (Ivo and Anyanwaokoro, 2019).

Additionally, leverage was sought to have an effect on a company's financial distress too (Muhtar and Aswan, 2017). Andre (2013) reported a positive effect of leverage on financial distress whilst Ginting (2017) reported a negative impact. This negative impact meant that high leverage firms are not those with high levels of financial distress. Most recently, a research carried out by Oktasari (2020) stated that leverage has no vital influence on a firm's financial performance.

Summary

As seen above, this study deals with the impact of COVID-19, leverage and liquidity on financial performance. The pandemic has affected the world and caused major economic downturns. The impact has been widespread, across many sectors and industries. Similarly, Oman's economy also saw shrinkage and the years have seen the government creating many plans to manage.

The telecom sector is a major part of the business structures across the world. There has been an increase in the

sharing of information, and that has led to technological advancements to aid smoother exchange processes. The financial sector has benefited from this. And as the industry becomes more and more integrated in all other sectors, it is more susceptible to the influences of the changes in demand on their financial performance. This leads to a need for financial performance measurement, which is done, as in this study, by the measurement of liquidity, profitability and leverage.

Research Methodology

For this study, since the sources of information are restricted to secondary sources, the company financial records are the main source, which are sufficient in themselves for the data required for analyses. Other than that, the sources used are journal articles, research papers and websites, for the theoretical knowledge required to complete this project, which have been used to identify the need of the study, its scope and benefits.

Findings

Table Variable Operationalization

Variable	***Abbreviation***	***Operationalization***
	Profitability Ratios	
Return on Equity	ROE	Net Income / Shareholder's Equity
Return on Assets	ROA	Net Income /Total Assets
Net Profit Margin	NP Margin	Net Income /Total Revenue
Gross Profit Margin	GP Margin	Gross Profit /Total Revenue
	Liquidity Ratios	
Current ratio	CR	Current Assets / Current Liabilities
Quick Ratio	QR	(Current Assets-Inventory) / Current Liabilities
Cash ratio	CH-R	Cash & Cash Equivalents /Current Liabilities
Operating Cash Flow Ratio	CF-R	Cash Flow from Operations / Current Liabilities
	Leverage Ratios	
Equity Ratio	ER	Shareholder's Equity / Total Assets
Debt to Equity Ratio	DTE	Total Liability / Shareholder's Equity
Debt Ratio	DR	Total Liabilities / Total Assets
	Valuation Ratio	
Earnings per share	EPS	Net Income of Company / Average Outstanding share of the company
COVID-19	_	1=Pandemic Announcement by WHO; 0= otherwise

In order to analyze and evaluate the impact of COVID-19 on the financial performance of telecom sector in Oman, the data was gathered for the two major telecom companies in Oman that are Omantel and Ooredoo. The financial data for these companies was obtained from the annual financial statements published on Muscat securities market's website. Below is the summarization of the ratios that have been calculated in order to depict the financial performance of the Telcom sector pre and post COVID-19.

Table 4.2 Financial Ratios

Financial Ratios														
Company	Year	ROE	ROA	NP Margin	GP Margin	CR	QR	CH-R	CF-R	ER	DTE	DR	EPS	COVID19
OMANTEL	2016	0.2118	0.1402	0.2229	0.7366	1.0038	0.9581	0.0490	1.0370	0.6618	0.5111	0.3382	0.1560	0
	2017	0.0409	0.0238	0.1420	0.6939	0.6733	0.6427	0.2228	0.1524	0.5833	1.1027	0.6432	0.1060	0
	2018	0.0799	0.0286	0.0955	0.7084	0.6925	0.6601	0.2376	0.4008	0.3582	1.7987	0.6443	0.0860	0
	2019	0.1143	0.0393	0.1156	0.7129	0.8127	0.7750	0.2545	0.5335	0.3434	1.9119	0.6566	0.1040	0
	2020	0.0791	0.0296	0.0911	0.7147	0.8318	0.7964	0.3022	0.4605	0.3744	1.6712	0.6256	0.0890	1
OOREDOO	2016	0.1964	0.1161	0.1713	0.7200	0.3899	0.3850	0.1049	0.7819	0.5912	0.6914	0.4088	0.0710	0
	2017	0.1294	0.0779	0.1132	0.7255	0.5595	0.5451	0.2426	0.7717	0.6017	0.6614	0.3979	0.0480	0
	2018	0.1628	0.1015	0.1477	0.7177	0.7390	0.7103	0.3432	0.7024	0.6233	0.6023	0.3754	0.0640	0
	2019	0.1296	0.0768	0.1189	0.7160	0.6936	0.6555	0.3214	0.7403	0.5926	0.6861	0.4066	0.0520	0
	2020	0.0826	0.0446	0.0802	0.6923	0.4305	0.3974	0.0832	0.5804	0.5398	0.8521	0.4600	0.0330	1

The master table above shows the ratios computed for year 2016 to 2020 in order to represent the financial situation pre and post COVID-19. A total of 12 ratios compromising of profitability, liquidity, leverage, and valuation were calculated for both the companies using the financial data extracted from the annual financial statements of both the companies.

In order to analyze the data a balanced panel data was created comprising of all the ratios computed and COVID-19 was treated as an independent variable. Since the main aim of the study is to analyze the impact of COVID-19 on the financial performance , COVID-19 was valued at 1 post COVID and 0 for pre COVID. All this information was used as an input for "E-VIEWS"(data analysis tool) in order to efficiently analyze the data. The reason this was done was to carry out the analysis in an organized manner.

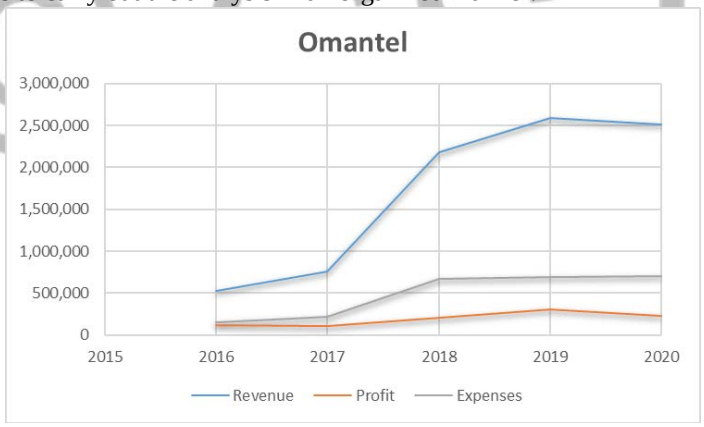


Figure 4.1 Omantel 5 Year Financial Performance

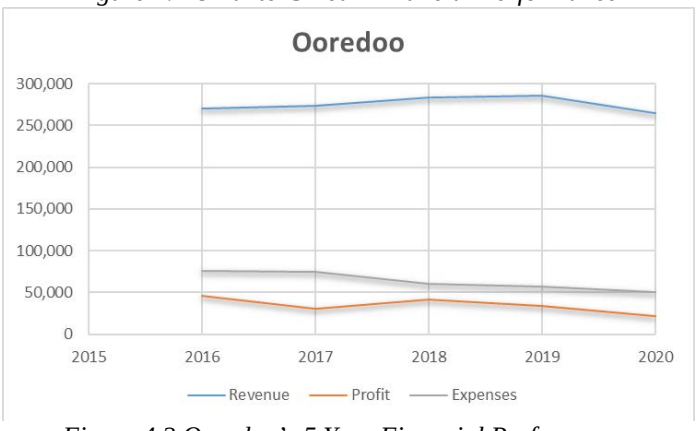


Figure 4.2 Ooredoo's 5 Year Financial Performance

The charts above show the trends in the revenue, profit, and expenses for both Omantel and Ooredoo.

Omantel shows a steep increase in its revenue between 2016 and 2020 from 500, 000 OMR to 2, 500, 000 OMR. In only 5 years, the company was able to increase its revenue by 2, 000, 000 OMR. Ooredoo, on the other hand,

started off with around 260, 000 OMR as its revenue in 2016 which is almost half of Omantel's. In the following years, Ooredoo has shown a very slow growth revenue wise with its peak in 2019 of 280, 000 OMR and at the end of the 5-year tenure, Ooredoo is back where it started with 260, 000 OMR as its annual revenue. Hence, from these trends, it is apparent that Omantel is the bigger company in terms of revenue as there is a difference of 240, 000 OMR in 2020 between both companies.

The next trend line shows the expenses of both companies. In 2016. Omantel's expenses were around 250, 000 OMR and they have risen to around 520, 000 OMR in 2018. These expenses have then remained constant till 2020. On the other hand, Ooredoo has shown a decline in expenses from 80, 000 OMR in 2016 to 50, 000 OMR in 2020. The net difference in expenses between both companies at the end of 2020 is 470, 000 OMR with Ooredoo being the company with lesser expenses.

Lastly, the profit for Omantel started at 100, 000 OMR in 2016, peeked in 2019 at 300, 000 OMR and came to a slight decrease in 2020 at 250, 000 OMR. Alternatively, Ooredoo started with an initial profit of around 50, 000 OMR in 2016 which fluctuated in both 2017 and 2018 and eventually decreased to 25, 000 in 2020. Conclusively, Omantel is shown to have a higher profit at the end of 2020 than Ooredoo.

The comparison of these three prominent financial statement figures show that Omantel is doing a lot better than Ooredoo, both pre and post Covid.

Descriptive Statistic

The study looks into the effect that variables such as liquidity and leverage have on financial performance of the telecom sector which is being measured by profitability ratios. The table below showcases the descriptive statistics of those findings which were initially summarized in the master table previously.

Table 4.1 Descriptive Statistics, Author's Analysis (EViews Software)

	ROA	ROE	NP_MARGIN	GP_MARGIN	CR	QR	CH_R	CF_R	ER	DTE	DR	EPS	COVID_19
Mean	0.067833	0.122674	0.129862	0.713812	0.682678	0.652559	0.216129	0.616086	0.526977	1.048879	0.495667	0.080900	0.200000
Median	0.060687	0.121869	0.117256	0.715365	0.693042	0.657800	0.240082	0.641373	0.587256	0.771742	0.434377	0.078500	0.000000
Maximum	0.140153	0.211781	0.222934	0.736637	1.003753	0.958106	0.343217	1.036982	0.661783	1.911903	0.656582	0.156000	1.000000
Minimum	0.023846	0.040883	0.080226	0.692331	0.389947	0.384997	0.048980	0.152353	0.343418	0.511069	0.338217	0.033000	0.000000
Std. Dev.	0.041050	0.054950	0.042937	0.013361	0.185643	0.176622	0.102908	0.246181	0.120314	0.540991	0.130033	0.035732	0.421637
Skewness	0.496838	0.282356	0.969647	-0.205595	-0.076564	-0.073788	-0.479009	-0.224667	-0.676256	0.666922	0.259563	0.710925	1.500000
Kurtosis	1.882137	2.023963	3.195313	2.571930	2.394225	2.394386	1.857867	2.757792	1.757078	1.732246	1.275280	3.008239	3.250000
Jarque-Bera	0.932088	0.529812	1.582921	0.146801	0.162671	0.161895	0.925944	0.108569	1.405893	1.410975	1.351730	0.842385	3.776042
Probability	0.627480	0.767278	0.453182	0.929229	0.921884	0.922242	0.629410	0.947163	0.495124	0.493868	0.508716	0.656264	0.151371
Sum	0.678327	1.226744	1.298623	7.138117	6.826779	6.525587	2.161295	6.160860	5.269773	10.48879	4.956668	0.809000	2.000000
Sum Sq. Dev.	0.015166	0.027175	0.016592	0.001607	0.310169	0.280758	0.095311	0.545446	0.130280	2.634039	0.152178	0.011491	1.600000
Observations	10	10	10	10	10	10	10	10	10	10	10	10	10

Mean and Median

The mean represents the average observation in a specified set of data (CFI n.d.). In this case it is showcasing the industry average for the Telcom sector in Oman. Out of all the profitability ratios calculated the highest mean belongs to the Gross Profit Margin (0.713812) whereas the lowest is that of ROE (0.122674). what this indicates is that while the sector is generating the decent amount of revenue, there is a problem in its return on equity. Next , In the liquidity ratios the highest mean is that of the Current Ratio (0.682678) whilst the lowest is of the Cash ratio (0.216129). This demonstrates that the telecom sector in Oman is more reliant on its current assets to pay off short terms debts in comparison to its cash resources. In its entirety this is a positive thing as it shows more focus towards investment. In addition to this, DTE (1.0488879) is the strongest leverage ratio and DR (0.495667) is the weakest. On average this represents the Telecom sectors' ability to finance its assets and the degree to which shareholder's equity can pay off financial obligations. Lastly the average earning per share in the telecom sector of Oman between the 2016 and 2020 reached the maximum of 0.156000 and minimum of 0.033000

Median represents the middle value in the series (Laerd statistics n.d.). The highest median also belongs to the ratios with the highest mean – GP Margin, CR, and DTE with the values of 0.715365, 0.693042, and 0.771742 respectively. This further supports the claims that were made above.

Standard deviation

Standard deviation calculates how spread out the data is in reference to mean (). A low standard deviation depicts that the data is clustered whereas high standard deviation shows that data is more widespread .In the telecom sector ROA, CH-R and EPS comparatively have the highest standard deviation. This demonstrates that companies in telecom sector in Oman show a lot of variances in these select ratios.

The lowest standard deviation belongs to GP Margin, CR, ER, and DTE. Hence, this shows that companies are very neck and neck when it comes to these ratios.

Skewness and Kurtosis

Skewness can be defined as the deviance or asymmetry in the data set and kurtosis can be defined as the peak or flatness of the data set (Joanes and Gill, 1998) . The skewness value of 0 is considered as normal skewness, a value of more than zero is known as positive skewness whereas value less than zero represents negative skewness. Additionally , a kurtosis of 3 is known as mesokurtic, a kurtosis of more than 3 is known as leptokurtic and less than 3 is known as platykurtic. Both these elements of skewness and kurtosis combine to form something

known as Gaussian distribution. (Choudary, 2001)

GP margin, current ratio, quick ratio, cash ratio, cashflow ratio and equity ratio all show negative skewness at -0.205595, -0.076564, -0.073788, -0.479009, -0.224667 and -0.676256 respectively. The rest all show positive skewness. Subsequently, all values except for NP margin (3.195313) and EPS (3.008239) show a kurtosis below 3. As a result, NP margin and EPS can be categorized as mesokurtic whilst all others can be deemed as platykurtic, as per the criteria set by Joanes and Gill (1998).

Jarque-Bera and Probability

Jarque Bera is the normality test that measures weather the distribution of data is normal or not based on the values derived from skewness and kurtosis. Thadewald et al., (2004) explains that the probability value of less than 0.05 for Jarque Bera means that the null hypothesis is rejected (abnormal distribution of data) whereas a value of more than 0.05 accepts the null hypothesis (normal distribution) (Thadewald & Buning, 2004).

The descriptive statistics table for the Oman's telecom sector shows that the probability of all the variables computed is more than 0.05 , indicating that the distribution across all the variables in the data taken is normal.

Statistical Analysis

In this section data was analyzed using regression and correlation analysis which was carried out using the statistical software "E-VIEWS". Keeping the main focus and objectives of the study in mind , empirical models were designed showing the impact of COVID-19 on the financial performance on the telecom sector in Oman. In these empirical models leverage, liquidity and COVID-19 are taken as independent variables to measure their collective impact on the dependent variable, financial performance, which is being measured by the profitability ratios.

Empirical Models

$$\boldsymbol{ROA = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$
$$\boldsymbol{ROE = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$
$$\boldsymbol{Net\ Profit\ Margin = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$
$$\boldsymbol{Gross\ Profit\ Margin = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$

The $\boldsymbol{\alpha}$ in the empirical models above represents intercept whereas $\boldsymbol{\beta}$ denotes the independent variable coefficients. ROA, ROE, NP Margin and GP Margin acts as the dependent variables in these models. For COVID-19 binary dummy model was used where 1 represents the post pandemic announcement by WHO and 0 represents otherwise.

Regression Analysis

Panel Least square method was used in order to find out the impact of leverage, liquidity, and COVID-19 On the profitability. Leverage ratios included are equity ratio, debt-to-equity ratio, and debt ratio while liquidity ratio included are current ratio, cash ratio and operational cash flow ratio. The impact of these ratios on the financial performance is measured through the following profitability ratios which are return on assets, return on equity, net profit margin, gross profit margin ratios.

$$\boldsymbol{ROA = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$

Table 4.2 ROA Regression Analysis

Dependent Variable: ROA
Method: Panel Least Squares
Date: 01/08/22 Time: 21:16
Sample: 2016 2020
Periods included: 5
Cross-sections included: 2
Total panel (balanced) observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTE	0.112489	0.191725	0.586723	0.5889
ER	0.306413	0.393248	0.779186	0.4794
DR	-0.442542	0.633142	-0.698961	0.5231
CR	0.015702	0.041782	0.375804	0.7261
CH_R	-0.057369	0.079426	-0.722291	0.5101
CF_R	0.015470	0.130816	0.118261	0.9116

R-squared	0.901012	Mean dependent var	0.067833
Adjusted R-squared	0.777277	S.D. dependent var	0.041050
S.E. of regression	0.019373	Akaike info criterion	-4.766184
Sum squared resid	0.001501	Schwarz criterion	-4.584633
Log likelihood	29.83092	Hannan-Quinn criter.	-4.965345
Durbin-Watson stat	1.700811		

The regression analysis table above shows a probability value of more than 0.05 for all variables indicating that there is indeed a correlation and association between the dependent (ROA) and independent variables. Whether the association or impact is positive or negative depends on the coefficient values of these independent variables. As can be seen in the table above, the debt ratio and the cash ratio both have negative coefficients of -0.442542 and -0.057369 respectively. This indicates a negative impact of these two liquidity ratios on the ROA. On the other hand, the coefficients of the debt-to-equity ratio (0.112489), equity ratio (0.306413), current ratio (0.015702) and cashflow ratio (0.015470) all show a positive impact on ROA. Hence, this shows that more so of the leverage ratios positively impact the ROA, as compared to liquidity.

$$\boldsymbol{ROE = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$

Table 4.3 ROE Regression Analysis

Dependent Variable: ROE
Method: Panel Least Squares
Date: 01/08/22 Time: 21:47
Sample: 2016 2020
Periods included: 5
Cross-sections included: 2
Total panel (balanced) observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTE	0.115851	0.319150	0.362998	0.7407
ER	0.242084	0.656573	0.368708	0.7368
DR	-0.356483	1.061253	-0.335908	0.7591
CR	-0.009687	0.067942	-0.142572	0.8957
CH R	-0.060133	0.128761	-0.467015	0.6723
CF R	0.122859	0.219047	0.560881	0.6140
COVID 19	-0.028731	0.026858	-1.069736	0.3632

R-squared	0.891118	Mean dependent var	0.122674
Adjusted R-squared	0.673355	S.D. dependent var	0.054950
S.E. of regression	0.031405	Akaike info criterion	-3.887646
Sum squared resid	0.002959	Schwarz criterion	-3.675836
Log likelihood	26.43823	Hannan-Quinn criter.	-4.120000
Durbin-Watson stat	2.630228		

The table above also shows a probability value of more than 0.05 for all the independent variables which again shows that there is indeed a relation between the variables and ROE. Furthermore, liquidity ratios such as current ratio (-0.009687) and cash ratio (-0.060133) show a negative impact on ROE but the impact is not significant. Additionally, the debt ratio too shows a negative impact on ROE by having a coefficient of -0.3564836. Cumulatively, COVID 19 is also shown to harbour a negative impact on ROE (-0.028731) but the impact is insignificant and negligible. Alternatively, DTE, ER and CF-R all have positive correlations with ROE and these links are shown to be of more significance than the ones who have negative ones.

$$\boldsymbol{Net - Profit\ Margin = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$

Table 4.4 NP Margin Regression Analysis

Dependent Variable: NP_MARGIN
Method: Panel Least Squares
Date: 01/08/22 Time: 21:50
Sample: 2016 2020
Periods included: 5
Cross-sections included: 2
Total panel (balanced) observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTE	-0.037790	0.290258	-0.130195	0.9047
ER	0.082257	0.597133	0.137754	0.8992
DR	0.152348	0.965178	0.157844	0.8846
CR	0.098275	0.061791	1.590430	0.2100
CH_R	-0.168105	0.117104	-1.435516	0.2466
CF_R	0.045398	0.199217	0.227880	0.8344
COVID_19	-0.040214	0.024426	-1.646340	0.1982

R-squared	0.852494	Mean dependent var	0.129862
Adjusted R-squared	0.557483	S.D. dependent var	0.042937
S.E. of regression	0.028562	Akaike info criterion	-4.077431
Sum squared resid	0.002447	Schwarz criterion	-3.865622
Log likelihood	27.38716	Hannan-Quinn criter.	-4.309786
Durbin-Watson stat	2.443226		

The dependent variable of NP margin is shown to be directly influenced by all the independent variables of leverage, liquidity and COVID 19. DTE (-0.037790), cash ratio (-0.168105) and COVID 19 (-0.040214) have all shown to have a negligible negative impact on NP margin whereas the remaining four variables all have positive correlations with NP margin. Not only do the positive ones have more of a significant impact but it is also evident that even the quantity of variables having a positive impact is more than those having negative ones.

$$\boldsymbol{GrossProfit\ Margin = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3\ COVID - 19 + \varepsilon}$$

Table 4.5 GP Margin Regression Analysis

Dependent Variable: GP_MARGIN
Method: Panel Least Squares
Date: 01/08/22 Time: 21:52
Sample: 2016 2020
Periods included: 5
Cross-sections included: 2
Total panel (balanced) observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTE	0.250652	0.092306	2.715440	0.0728
ER	0.889314	0.189897	4.683145	0.0184
DR	-0.153915	0.306940	-0.501449	0.6505
CR	-0.061240	0.019651	-3.116432	0.0526
CH_R	0.094687	0.037241	2.542570	0.0845
CF_R	0.122903	0.063354	1.939945	0.1477
COVID_19	0.020788	0.007768	2.676083	0.0753

R-squared	0.845949	Mean dependent var	0.713812
Adjusted R-squared	0.537847	S.D. dependent var	0.013361
S.E. of regression	0.009083	Akaike info criterion	-6.368751
Sum squared resid	0.000248	Schwarz criterion	-6.156941
Log likelihood	38.84375	Hannan-Quinn criter.	-6.601105
Durbin-Watson stat	3.436012		

The last regression table has taken GP margin as the dependent variable and the equity ratio is the only independent variable that is shown to have no impact on it as it has a probability value of less than 0.05 at only 0.0184. All others are shown to have an impact as all exceed the probability value of 0.05. Moving forward to the coefficient values, debt ratio (-0.153915) and cash ratio (-0.061240) are the only two who show a negative impact on GP margin whereas all the others show a significant positive correlation. Equity ratio can be seen to have the biggest impact of all as it shows a positive coefficient of 0.889314 on GP margin.

Hence, the huge positive impact of these variables on GP margin indicates that there is indeed a link and influence on the financial performance of the telecom sector.

Correlation Analysis

Table 4.6 Correlation Analysis

	CR	QR	CH_R	CF_R	ER	DTE	DR	COVID_19
CR	1.000000	0.999059	0.206221	0.123819	-0.152434	0.234646	0.131440	-0.146170
QR	0.999059	1.000000	0.211475	0.133954	-0.145435	0.228653	0.123865	-0.166035
CH_R	0.206221	0.211475	1.000000	-0.351696	-0.302204	0.306851	0.290859	-0.120037
CF_R	0.123819	0.133954	-0.351696	1.000000	0.540808	-0.648227	-0.867597	-0.204720
ER	-0.152434	-0.145435	-0.302204	0.540808	1.000000	-0.974205	-0.839103	-0.306117
DTE	0.234646	0.228653	0.306851	-0.648227	-0.974205	1.000000	0.925163	0.207273
DR	0.131440	0.123865	0.290859	-0.867597	-0.839103	0.925163	1.000000	0.191079
COVID...	-0.146170	-0.166035	-0.120037	-0.204720	-0.306117	0.207273	0.191079	1.000000

Correlation can be termed as the link or relationship between variables (BYJU's, n.d.). This relationship can be of a positive or negative nature, meaning that the variables may be directly or inversely proportional. In the table above, independent variables of liquidity and leverage have been analyzed under correlation analysis to check their interdependency.

As can be seen above the Current ratio (CR) holds a positive correlation with all the variables except equity ratio and COVID-19. This represents that an increase in the current ratio leads to a decrease in the equity ratio (ER) for the telecom sector in Oman. A negative correlation of (-0.152434) between the two shows that an increase in the ability to pay off short term debts with current assets leads to a decrease in financing the same current assets by issuing stocks . Similar is the case with the correlation (-0.145435) between the quick ratio (QR) and the equity ratio (ER).

Moving forward, the cash ratio (CH-R) holds a negative correlation with the Cash flow ratio (CF-R) and (ER) at (-0.351696) and (-0.302204) respectively. This indicates that the company's repeated ability to pay off short term liabilities with its cash resources lowers the number of times a company is able to do so whilst also lowering the funding for current assets by issuing shares. Hence, establishing a negative correlation with the cashflow ratio.

Additionally, Cash flow ratio (CF-R) also holds a negative correlation with debt to equity (DTE) and debt ratio (DR) at (-0.648227) and (-0.867597) respectively. It holds positive correlations with all other variables indicating that they all improve mutually with the cash flow ratio (CF-R).Equity ratio (ER) holds positive correlation only with the cash flow ratio (CF-R).

Furthermore, the debt-to-equity (DTE) and debt ratio (DR) are two prominent variables holding a significant positive correlation with COVID-19 which shows that the telecom sector in its entirety has a healthy number of shareholders' equity to finance its assets and operations in comparison to its debts.

On a concluding note, while there are some negative correlations among the variables, they are insignificant when compared to the positive ones.

Conclusion

What are the implications caused by COVID 19 on business in terms of finance?

There is no denying that COVID-19 has affected economies globally. Furthermore, the magnitude of its impact has been carefully evaluated through this paper. After extensive research, the impact can be categorized into two main segments.

The negative impact is what is most commonly found around the world. COVID-19 has adversely impacted the smallest of businesses as well as some of the biggest MNCs across the world. Some major sectors that have plummeted as a result of the pandemic include the tourism sector, education sector and more.

Alternatively, there are some sectors and businesses that were not subject to such significant negative implications due to the pandemic. These sectors remained consistent in their operations and had the least amount of negative effect on their operations. The telecommunication sector is one of the biggest sectors in this category. This is the result of everything closing down during the initial spread of the pandemic and everything shifting to a virtual digital platform. Offices, schools, businesses and more all depended on online platforms for their operations and as a result, the telecommunication sector benefitted from this globally.

How did the demand for telecommunication sector change during Covid-19?

As discussed above, everything shifted to online platforms due to the Covid-19 pandemic outbreak. An emergency was declared worldwide, and the entire planet went into lockdown. This led to a dependency and need for broadband and telecom services as this was the only mode of communication easily available - offices switched to work from home, educational institutes switched to online distant learning and more. As a result, the demand for the telecommunication sector increased tenfold.

The two most prominent telecom companies in Oman are Omantel and Ooredoo and their demand skyrocketed as soon as the pandemic hit. This increase in demand led to a substantial increase in both the companies' profits too.

What are major differences between pre and post COVID 19 financial reports of Omantel and Ooredoo?

The financial data for both the major companies was gathered through the MSM website for five years. Various financial ratios were computed to properly analyze the performance and difference of the telecom companies in Oman pre and post COVID-19.

The main objective was to view whether COVID-19 played a major role towards the trends observed for the telecom sector. The graphs in chapter 4 for the profit, expenses and revenue show a very steady, stable, and consistent performance of both the companies. The trends observed pre COVID-19 continued well after the pandemic hit indicating that there was no significant negative impact on Omantel and Ooredoo post COVID-19.

Detailed descriptive statistics was also done on the data collected. The descriptive statistics show that the companies in the telecom sector have continued to earn good consistent revenue, have continued to own enough assets to finance their liabilities and still possess the ability to fund their new assets. Again, this trend is shown to be consistent pre and post COVID and hence, no significant negative implications of COVID 19 on the telecom sector can be seen. On the other hand, the telecom sector did struggle with its return on equity and cash resources pre COVID and that can also be seen in the data post COVID. There has been no prominent effect on this either.

To further study the conclusions derived from the graphs and descriptive statistics, empirical models were designed on which regression analysis was run. The regression analysis further supported the results found above as it too showed positive correlations between most of the liquidity and leverage variables on ROA, ROE, NP Margin and GP Margin. The exception to this clause was that DTE and CR showed negative correlations to the NP Margin but again, these links were very insignificant and held no real value. The correlation analysis showed the same.

Conclusively, it was found that COVID-19 had no significant negative impact on companies in the telecom sector. This is because the trends in the financial data remained stable, pre and post COVID-19.

How can the telecommunication sector strategically resolve and improve their current financial performance?

The telecom sector at large can work to improve its financial performance. This can be done by strategically analyzing current trends and ratios and seeing where the shortcomings lie.

Immediate effective action can then be taken to correct this and rise above other competitors by increasing revenue and decreasing debts. Additionally strategic preventive planning can be done so that any unforeseen repercussions of the pandemic can be avoided, and the sector can continue to function like normal

The paper delves into the implications that COVID-19 has had on the financial performance of telecom sector in Oman mainly Omantel and Ooredoo. The time period taken was from 2016 to 2020 so a complete picture could be derived as to how the companies were operating pre and post COVID-19. The research shows that the financial performance of the companies in the telecom sector is directly proportional to their leverage and liquidity. Most held positive correlations and associations, very little held negative ones. The strategic resolutions and suggestions for the telecom sector are given in the next section.

Moreover, it is also evident that the COVID-19 pandemic has had no significant negative impact on the telecom sector in Oman. It has continued to operate at the same wavelength that it was before the pandemic. Hence proven, the telecom sector was one of the very few sectors that did not have to face the adverse effects of the pandemic.

Recommendations

As per the analysis and evaluation done, the following recommendations have been made to Ooredoo, Omantel and the remainder of the telecom sector:

- The telecom companies must strategically make use of debts in an optimal manner to improve leverage which will ultimately improve financial performance.
- Study must be done by the respective firms' departments on other areas and elements to understand the nature of any other variables that maybe effecting financial performance. This will help gain an in-depth understanding of how the financial performance changes due to different factors and will aid in managing them.
- Special offers and incentive should be made available so that individuals and organizations can avail them and add to company's revenue. This will help increase demand, and serves as marketing as well, leading to better profitability.
- Telecom sector should stay away from the debt financing to help improve their leverage, and improve financial performance.
- The management should enforce strategic financial decisions that are in sync with the sectors' objectives and mission for wealth maximization and for sustainable growth.

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