BINDURA UNIVERSITY OF SCIENCE EDUCATION



AN INVESTIGATION ON THE EFFECTS OF EPIDEMIC, CORONAVIRUS DISEASE OF 2019 ON THE PROFITABILITY OF THE MANUFACTURING COMPANIES IN ZIMBABWE; A case study of the manufacturing industry in the city of Mutare.

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B1645960

A DISSERTATION/THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE BACHELOR OF ACCOUNTANCY HONOURS DEGREE OF BINDURA UNIVERSITY OF SCIENCE EDUCATION FACULTY OF COMMERCE.

2021

Declaration

I, Flight K Magwere, declare that this study is a product of my own research and research other than those indicated in the acknowledgement references and report in the body of the report and that has not been submitted in full or in part of other degrees or at any other university or institution.

Approval form

The undersigned certify that they supervised the dissertation of Flight K Magwere with registration number B1645960 entitled "Investigation on the effects of the COVID-19 epidemic on profits for Zimbabwean manufacturing companies; research on the manufacturing industry in Mutare city. The dissertation was submitted in partial fulfilment of the requirements of the Bachelor of Accountancy Honours Degree at Bindura University of Science Education.

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Dedication

I dedicate this work to my dear parents, siblings and friends, I am thankful and grateful to them for their prayers and supports that have helped me to accomplish my dream as well as kept the family united. Their prayerfulness and high moral integrity is a testimony to the success of the family all round.

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Abstract

The outbreak of novel Corona virus epidemic (COVID-19) resembled that epidemic can seriously wreak havoc the manufacturing Industrial both locally and internationally. This research work empirically explored the effects of epidemic COVID-19 on the profitability of manufacturing companies in Mutare Zimbabwe targeting twelve (12) manufacturing firms listed on the Zimbabwe Stock Exchange by employing a census survey to cover all manufacturing firms within Mutare. This research adopted the triangulation research method where the researcher used three data collection methods so as to increase reliability and validity of findings by obviating weakness of a single approach and thus balancing it with strengths of the other. Among of the data collection methods used are survey method (whereby a questionnaire was designed and piloted), in depth interviews and focus groups where carried out using a purposively selected sample of company representative managers. Interviews were conducted over the telephone in accordance with the government's COVID-19 regulation to reduce contact in order to reduce the spread of the virus. From a data analysis, the findings indicate that the short-term effects of this unprecedented epidemic such as the lack of operating costs and limited distribution of distributors are severe, and the medium-term impacts promise to be complex and uncertain. Long-term performance metrics including corporate Return on Investment (ROI), corporate contribution to Gross Domestic Product (GDP) and employee size are all expected to decrease due to Covid-19. In addition, manufacturing firms may need to restructure their supply chain and build relationships with new distributors and business partners. The study proposes a number of twelve (12) manufacturing firms targeted at Managers and others in the manufacturing sector to improve resilience in a changing environment during and after the COVID-19 Period.

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Abbreviations

BACC	Bachelor of Accountancy Honours Degree
B.O.P	Balance of Payment
CZI	Confederation of Zimbabwe Industry
COVID-19	Coronavirus Disease 2019
GDP	Gross Domestic Product
IM+F	International Monetary Fund
MERS	Middle East Respiratory Syndrome
МОН	Ministry of Health
NGOs	Non-Governmental Organisations
US	United States
ROI	Return on Investment
SARS	Severe Acute Respiratory System
W.H.O	World Health Organisation
ZSE	Zimbabwe Stock Exchange
ZIMASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation

CHAPTER ONE

1.0 Introduction

An unprecedented outbreak of the Corona virus was first reported in Wuhan city in Hubei province in China. The number of people being tested for the virus was a growing phenomenon in the province and around the world and the unprecedented disease was spreading rapidly around the world, resulting in severe economic decline and human catastrophe. In view of this tremendous growth, the Chinese authorities informed the World Health Organization (WHO) of these charges for an unknown reason and declared it a global epidemic.

The rapid spread of Covid-19 worldwide, countries have taken several public health measures aimed at curbing its spread, including population reduction (Fong et al. 2020). Due to the growing business environment, schools, non-governmental organizations (NGOs) and community centres have had to close, public gatherings such as churches, weddings and beer halls have been banned and steps have been taken to close the door in many countries, to allow for essential services. The main objective was that through community reduction, countries would be able to soften the curve that reduces the number of new cases related to the virus that have never been seen from time to time to disrupt significant growth and thus reduce pressure on medical services (John Hopkins University, 2020a). Although a continent like Africa remains one of the few countries with the most recorded cases. As most countries on the African continent have relatively poor health care systems. There should also be strong measures to prevent the spread of the deadly corona virus. Several countries around the world have embarked on a campaign to educate the public about these practices as a way to curb the spread of this infectious disease. Zimbabwe as part of the international community, in response to COVID-19 the Government of Zimbabwe introduced public health legislation in the form of the 2020 Act to prevent and prevent the spread of this infectious disease as recommended by W.H.O. These measures to prevent and prevent the spread of this deadly virus as stated in Statutory of Instrument 77 of 2020 include the banning of gatherings for any purpose, restrictions on public travel and the movement of locals and foreigners.

The spread of this epidemic was a public health problem that posed a serious threat to the economy through mass production, disruption of movement and loss of productivity in the manufacturing sector. COVID-19 was unprecedented and had a devastating effect on Zimbabwe's manufacturing companies. Such severe disruptive effects often produce negative effects on the profitability of manufacturing companies. The producers were a little closed and worked with strict limits.

1.1 Background of Study

Ferguson et.al. (2020), stated that epidemics are not new and occur at different stages in human history. Outbreaks appear to be exacerbated during the period since 2000 and there have been significant increases in the number of epidemics since 2000 and beyond. This increase in the frequency of epidemics is mainly due to the increased incidence of bacterial infections in animals (Madhav et al., 2017). Given the prevalence of epidemics, many researchers including Garret 2007 and Madhav et al. (2017), and Fan et al. (2018), argue that a global epidemic was inevitable. Ferguson et al. (2020), from the Imperial College London team COVID-19 Response states that COVID-19 is the most critical episode since 1918 the Spanish flu epidemic. Barro (2020), concludes that non-medical interventions made during the Spanish influenza of 1918 did not succeed in reducing the death toll because the intervention was not sustained long enough. He also estimates that the school closures duration and the ban on the gatherings of the public was only 36 days, and that the duration of the detention period was eighteen (18) days. These figures are small in comparison with the number of days that the Spanish influenza of 1918 began to take effect.

Name	Time Period	Type/Pre-human host	Estimated death toll
The Antonine Plague	165-180	Believed to be either smallpox or	5 million
		measles	
Japan smallpox epidemic	735-738	Variola major virus	1 million
Plague of Justiniam	541-542	Yersinia pestis bacteria/rats, fleas	30 to 50 million
Black Death	1347-1351	Yersinia pestis bacteria/rats, fleas	200 million
New World Smallpox	1520-	Variola major virus	56 million
Outbreak	onwards		
Great Plague of London	1665	Yersinia pestis bacteria/rats, fleas	100 000
Italian Plague	1629-1631	Yersinia pestis bacteria/rats, fleas	1 million
Cholera Pandemics 1-6	1817-1923	V. cholera bacteria	1 million+
Third Plague	1885	Yersinia pestis bacteria/rats, fleas	12 million (China &
			India)
Yellow Fever	Late 1800s	Virus/Mosquitoes	100000-150000 (US)
Russian Flu	1889-1890	H2N2 (avian origin)	1 million
Spanish Flu	1918-1919	H1N1 virus/pigs	40 to 50 million
Asian Flu	1957-1958	H2N2 virus	1.1 million
Hong Kong Flu	1968-1970	H3N2 virus	1 million
HIV/AIDS	1981-present	Virus/Chimpanzees	25 to 35 million
Swine Flu	2009-2010	H1N1 virus/pigs	200 000
SARS	2002-2003	Coronavirus/bats civets	770
Ebola	2014-2016	Ebolavirus/wild animals	11 000
MERS	2015-present	Coronavirus/bats, camels	850
L		1	

Table 1.1Major Pandemic, Historical Timeline.

Source: World Economic Forum (2020)

The current (2019 -2020) virus of COVID-19 that erupted in Wuhan, China in December 2019 has led to a major global socio-economic crisis. The COVID-19 disaster has serious consequences for the people and the economies of countries, it is uncertain. The International Money Fund (IMF) recently published the World Uncertainty Index of 143 countries from 1996 to 2021. The reference below in Figure 1.0 is made up of recorded data by counting the times when the word uncertainty is said about the names of the epidemic or epidemic in the Economist Intelligence Unit of the country reports. This deadly infectious virus, COVID-19 is associated with the highest level of economic uncertainty since the index began to record data.



Figure 1.0 World Uncertainty Index

Source; World Uncertainty Index

1.2.0 An overview of manufacturing companies in Zimbabwe.

Zimbabwe's manufacturing industry is considered one of the most important parts of the economy. The manufacturing sector is responsible for transforming consumer goods into finished and finished goods supplied to domestic and international markets. The Manufacturing Industry consists of companies that are involved in the conversion of machinery, chemicals or materials into raw materials or materials into industrial goods. These changes are mainly due to the use of plants, industries and mills that make extensive use of energy-efficient machinery

and raw materials such as agricultural products, fishing and mining. The manufacturing industry has strong links with the agricultural sector.

The manufacturing sector contributes significantly to GDP when fully operational and production can serve as a strong anchor for the economy. The relationship between the output and the inputs included and the potential output, if the volume is fully utilized is defined as Capacity Consumption. The Confederation of Zimbabwe Industry (CZI) has reported that energy consumption in the manufacturing sector in 2019 has dropped to 36.4% from 48% in 2018 by 2021 they expected growth in power consumption to 61%. If this level of energy is achieved, this will be the highest level since 2009. Declining energy consumption in the manufacturing sector has been attributed to low productivity due to energy challenges, inflation, shortage of foreign exchange and old equipment. Zimbabwe's economy continues to deteriorate, with many companies facing job losses due to lack of funding. The low purchasing power of consumers has created little demand while corporate operations are being disrupted by obsolete old equipment.



Figure 1.1 Capacity Utilisation 2017 – 2021

Source; CZI 2020

The manufacturing sector in Zimbabwe is facing significant challenges such as the emergence of unprecedented diseases affecting the supply of raw materials and ingredients in production facilities which has forced producers to refrain from working. In addition, high production costs, which continue to rise due to poor infrastructure, regulation, tax administration and government responsibility. Zimbabwe has experienced a sharp decline in commodity demand due to growing poverty and declining imports due to the global economic downturn. Zimbabwe's manufacturing industry also suffers from unauthorized costs imposed by the authorities and the domestic sector, a lack of government support for domestic products especially the purchase of domestic goods.

1.2.1 Consequences of the epidemic in the Industry

This unprecedented disease has hit many countries around the world and has had a devastating effect on the industry by disrupting market access. The lack of a market has forced Zimbabwean production companies to fail to meet local demand due to a shortage of raw materials as markets close. The suspension of domestic and international goods affects parts of the domestic manufacturing sector as China is a major source of goods and equipment for domestic firms. The outbreak has plagued many manufacturing companies around the world with challenges related to social reduction laws and measures to close the door to curb the spread of the virus. Social segregation measures have reduced job efficiency as there is a great need to ensure adequate security for workers. Many Zimbabwean manufacturing companies have also reported that high unemployment rates, for example, have reduced staffing by 40%. Zimbabwe's manufacturing industry has not been deterred by the impact of an unprecedented disease. The Minister of Finance in presenting the mid-term monetary policy to the Zimbabwean parliament on 16 July 2020, Finance Minister Professor Mthuli Ncube highlighted the impact of the epidemic on the manufacturing sector, including those industries that rely on agriculture for raw materials Ncube, (2020).

Manufacturing	2019	2020 Budget	2020 Revised	2020 vs 2019
			Budget	
Foodstuffs	109.4	105.0	87.5	-22%
Drinks, Tobacco &	76.6	83.0	68.9	-15%
Beverages				
Textiles & Ginning	90.6	63.0	91.5	1.0%
Clothing & Footwear	26.8	96.0	25.4	-5%
Wood & Furniture	214.4	93.4	203.7	-5%
Paper, Printing &	90.1	98.0	72.1	-20%
Publishing				
Chemical & Petroleum	76.3	75.0	83.9	10%
products				
Non-metallic mineral	130.2	93.0	104.2	-20%
products				
Metals & Metals	59.7	82.0	53.7	-10%
product				
Transport, Equipment	56.6	68.0	50.9	-10%
Other manufactured	95.2	69.0	85.7	-10%
goods				
Manufacturing Index	87.4	87.7	77.0	-12%
Growth Rate	-8.7	1.9	-10.8	

Source; (Ncube, 2020)

1.2.2 The effects of epidemic on markets access

The epidemic has created major market disruptions in the local industry. According to a CZI study, 88 percent of companies were adversely affected as they failed to find markets for export. Only 12% say they have not been infected. Market inactivity has the following effects;

□ Limited access to international markets due to lockdown.

□ Manufacturing firms are failing to meet domestic demand due to a shortage of raw materials since the closure of consumer markets.

□ Many companies have also been exposed to service delivery risks

1.2.3 Impact of epidemic disease on the supply chain.

The outbreak and spread of unprecedented COVID-19 has forced the production process to slow down in China and the global supply of raw materials and leftovers has been reduced due to delays and reductions in exports, especially in February and March 2020. Plant closure or delays in production within China have a significant impact on industrial enterprises related to other regions. The National Bureau of Statistics stated that the new import and export indicators for February are only 31.9 percent and 28.7 percent respectively. While certain items were retained, China's decline in exports will gradually affect small businesses in other regions and lead to disruptions in the supply of raw materials and residual industrial components such as machinery.

Figure 1.2; Supply chains both local and international



Source; Researcher (2021)

• Supply is limited due to the closure of the resource market.

• The sudden increase in demand for domestic and foreign medicines has hampered the effectiveness of the supply chain.

• The suspension and closure of South Africa has had a significant impact on the supply of raw materials.

The supply and demand in the supply chain has been greatly affected by the continued spread of Covid-19 worldwide. Covid-19 has caused plant closures in major manufacturing countries due to actions such as land closures, aircraft stops and restrictions on outdoor activities. The supply chain will soon be disrupted or even disrupted by other industries such as the automotive and electronics industry. Market demand has also shown a great deal of uncertainty and cannot be satisfied due to planning constraints. Measures including aircraft control, restriction of entry and export and strict inspection of goods have resulted in four international shipping challenges which are declining demand due to cancellation of order or requirement of shipping delay, increased airline costs, transportation and distribution; shortage of goods due to the long time required for inspection of goods and road transport.

1.2.4 Consequences of business environment changes in manufacturing companies.

Zimbabwe's manufacturing sector has shrunk as the recession has declined over the past decade due to various reasons including an estimated inflation of 231 million% in 2008 according to a CZI study (2009). In this period, the business environment were characterized by a lack of operating funds, a decline in the domestic market, higher utility prices, higher than regional tax structures, higher wages, reduced debt and financing and various other disruptions including fuel, energy, inputs and imported skills. Demand for the local products has also declined due to possible changes in the patterns used to harvest cheap imported goods.

Many Zimbabwean businesses are turning to consumer goods and this has resulted in job losses, declining exports and low payrolls (BOP). Manufacturing companies are facing increasing competition and are struggling to cope with both exports and exports in the context of the international economy. According to Karim (2009), "there are unprecedented pressures on businesses to improve their efficiency in order to improve competition and overall business performance". He also explains that such pressures include external product competition, the introduction of a new product by a competitor, rapid technological development and the life cycle of short products, unexpected customer changes, and advances in production and technology knowledge. He says under the new economic conditions, a firm must deliver a reliable good or service on time and ensure that customer wishes are fulfilled.

REASON	PERCENTAGE (%)
Shortage of Foreign Currency	80.8%
Raw Materials	71.8%
Problems of Working Capital	9.0%
Low Domestic Demand	42.3%
Power Cuts	6.4%
Fuel Shortages	9.0%
Exchange Rate Policy	3.8%

Table 1.3, Reasons for manufacturers' failure to use competition.

Source: CZI (2005) and Mzumara et al. (2005)

Zimbabwe's economic downturn continues to threaten the health and stability of the manufacturing sector. Rusvingo (2015), predicts that many manufacturing companies will close stores. This is due to the continued decline in energy consumption, the long-term consequences of power outages and costs, the challenges of earning a living, the low demand for households and equipment. On the earlier of 2014, the economy was projected to grow at a rate of about 6.1%, taking into account the implementation of the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET). Good ideas were also focused on strong revitalization in the agricultural sector and improving the performance of the mining and construction industries. However due to the persistence of the negative factors mentioned above, the GDP growth rate has been revised to approximately 3.1% in December 2013 (CZI, 2014). CZI (2014) also reports that in 2012, 2013 and 2014 my energy use rates were 44.2%, 39.6% and 36.3% respectively.

Zimbabwe's economy continues to be plagued by difficulties, domestic and foreign currency shortages and long-term liquidity. Economic activity declined from 10.6% in 2012 to 4.5% in 2013, literally.

The unprecedented Coronavirus virus poses a serious threat to food security due to the severe economic crisis and the subsequent years of drought in Zimbabwe. Zimbabwe has faced unprecedented economic, environmental and political crises over the past decades, which has devastated Zimbabwe's economy. By the end of 2019, 62.6 percent of Zimbabweans were living below the poverty line (World Bank, 2019). Extreme poverty is expected to rise from

29% in 2018 to 34% in 2019, with an increase from 4.7 million to 5.7 million. The agricultural sector has had a series of adverse events as a result of the El Nino drought and devastated the agricultural sector, with dire consequences 80 percent of the population earning a living from rain-fed agriculture and livestock production (FAO, 2020). In addition, Cyclone Idai, which devastated the country in 2019, exacerbated the situation as the three worst affected provinces, especially Manicaland Province, accounted for 30% of agricultural production (World Bank, 2019).



Figure 1.3, Comparison of Performance Constraints in 2019 and 2020

Source; (CZI, 2020)

1.3 Statement of Problem

The local manufacturing industry in Zimbabwe was affected in many ways by the COVID-19 pandemic and different manufacturing companies were uniquely affected depending on the sub-sector they operate in because of the lockdowns which were imposed by government authorities mostly affected the normal operations of manufacturing companies in the 'non-essential' category. This study analyses the effects of COVID-19 pandemic on the profitability of manufacturing companies in Zimbabwe during the period 2019 to 2020.

1.4 Objectives of the Study

- ★ To analyze the impacts of epidemic COVID-19 on the profitability of the manufacturing companies.
- \star To assess the effects of COVID-19 lockdown on manufacturing companies.
- ★ To analyze the impacts of epidemic on the effectiveness and efficiency of the manufacturing companies.

1.5 Research Questions

- \star Does the epidemic impact the profitability of manufacturing companies?
- ★ What are the effects of COVID 19 lockdown on manufacturing companies?
- ★ What are the impacts of epidemic on the effectiveness and efficiency of the manufacturing companies?

1.6 Significance of the Study

The study on the effects of epidemic on the profitability of manufacturing companies will be of immense benefit to all the Zimbabwe citizens and to those who are in manufacturing sector. The study will educate the manufacturing companies and masses on the preventive measures to be adopted in order to curb the spread of epidemic. The study will help the researcher to acquire research skills and develop the ability to analyse different situations. Research may also be important for other students who may want to do more research in the future. It may also be a future reference for a student who needs to continue investigating in the same study area.

1.7 Limitations of the study

- ★ Respondents such as management and other employees may not be able to co-operate because of the nature of their work which keeps them busy. The best solution to overcome this challenge, a list of questions will be handled even by email.
- ★ Limited access to organizational data research companies have a strict privacy policy that does not allow respondents to disclose their data easily. Some employees are assured that all information disclosed should be kept confidential.
- ★ Financial problems insufficient funding often hampers the researcher's efficiency in obtaining appropriate assets, documents or information and a data collection system.
- ★ Difficulty of time the researcher simultaneously did the research with other academic activities. This therefore did not decrease in the time allotted for the research task.
- ★ Lockdown the organization was temporarily closed.

1.8 Scope of Study

This study investigated the effects of epidemic that is COVID-19 on the profitability as the key parameter of manufacturing companies focusing mainly on the companies listed on the Zimbabwe Stock Exchange (ZSE). Only twelve listed companies have been selected for this study because their information is readily available since most of their reports are in public domain of ZSE. The rules of ZSE require listed companies to publish their performance in the print media. This study looked at the data from 2018 to 2020.

1.9 Summary

The study is to investigate the effects of epidemic COVID-19 on the profitability of manufacturing companies in Zimbabwe. This chapter contained the introduction, background of the study, the problem statement, research objectives, research question, significant of the study and the limitation of the study.

CHAPTER TWO

2.0 Literature Review

This chapter deepens to compile and interpret by examining theoretical points made in previous studies. Several ideas and models have been proposed over the years by various experts in an effort to explain the effects of the epidemic on the profits of manufacturing companies. The main aim of this chapter is to refine the research question, to highlight research opportunities and to obtain clear recommendations for further research.

2.1 Theoretical Framework

Disaster risk theory focuses on financial and operational resources that enable companies to withstand adverse conditions. It emphasizes on the significance of community-based networks and the role of public finances in assisting businesses in their response to disasters (Bin and Edwards, 2009; Torres et al. 2019). The owners of business' response to natural disasters through the lens of resources and social funding, which distinguishes between strong businesses that are not only operational but also thriving after a disaster. Some evidence suggests that businesses often engage in the disaster relief in their community, (Bin and Edwards, 2009), stating that in addition to the community, entrepreneurs and small firms are also active (Markman et al., 2019). Post-disaster business sustainability is the result of many decisions that result in the interaction of individuals, businesses, families and communities, (Marshall and Schrank, 2014). In addition, responses to problems and unusual shocks are among the strength theory. The origin of the concept of firmness in business literature goes back to Staw et al. (1981) and Meyer (1982). Both authors use the diversity-selection-keeping methods set out in the theory of evolution, (Campbell 1965) and develop very different proposals about how organizations respond to external shocks. Staw et al. (1981), introduced the theory of how adverse conditions lead to the avoidance of risk in the form of "strong consequences." Meyer (1982) extends the framework of resilience by reading hospital responses to an unexpected medical strike or "natural jolt," contradicting the suggestion of Staw et al. (1981) that external threats put the organization at risk automatically. Stability occurs over time and is related to the acquisition of individuals, businesses, communities and

institutions. Many studies look at the strength of a post-disaster business as a binary category of open or closed firms (Marshall and Schrank, 2014). By taking steps and processes that contribute to strengthening small businesses as a response to the crisis, Tugade and Fredrickson (2004) give the real-world examples, while Torres et al. (2019) emphasizes the role of society and the support of entrepreneurs in the post-traumatic period. A literature review of resilience and risk management began to note that there are few ways to determine if an entrepreneur is "resilient," before showing a strong or unstable response (Linnenluecke and Griffiths, 2012). In addition, the researchers argued that more attention should be given to the timing of the threat and to the effect of the company's response. The concept of organizational sustainability falls into three categories: (1) resilience as a result (2) resilience as a process (3) resilience (Bullough et al., 2014; Duchek, 2020). In the post-COVID world, new and emerging businesses will be able to take advantage of their business practices and take advantage of the turmoil caused by the global epidemic (Zahra, 2020). In a situation associated with high volatility and uncertainty, the significance of corporate (DC) dynamic capabilities to integrate resources into new opportunities is also enhanced (Battisti and Deakins, 2017). The DCs' role and the resilience's role (Bergami et. al, 2021; Bullough and Renko, 2013; Bullough et al., 2014) distinguish not only the survival and failure of small businesses and entrepreneurs but also the pace with new activities that they can learn about, both determining their growth and survival in the long run (Zahra, 2020).

2.2.0 COVID-19 and Profitability

For all businesses, profit is one of the most important parameters for measuring financial performance. The word profit is different from the profit earned by a business. Profit is defined as the condition in which the value of a business product exceeds the cost of inputs, while the term profit refers to the entity's ability to earn a return on a given investment. Profit is considered the main goal of all businesses, no business can survive over time without profit. A highly profitable business or organization has the potential to reward its owners with significant return on investment, efficiency and ability to meet its short-term obligations.

Company profits are measured by the extent to which the business makes a profit in terms of production, personnel, management and finances. Profit analysis is primarily based on the relationship between income and expenditure and the level of profit associated with the size of the investment. Four practical steps to profit are the return on assets, the return on equity, the

limit on operating profit and total income. COVID-19 have impacted negatively on profitability as NPIs were introduced. They affected production and the movement of goods and service. It altered greatly the supply chains.

2.2.1 COVID-19 and Liquidity

Liquidity measures a company's ability to fulfil its financial obligations in a timely manner, without compromising the normal, continuous operation of the organization. Business Liquidity can be analysed both structurally and functionally. Structural liquidity refers to the balance sheets of the relationship between a company's assets and their liabilities. Operating liquidity is defined as the cash flow measure of a business. Solid solvency measures the amount of borrowing used by an entity compared to the equal amount of the owner's investment in the business. In addition, the payment measures provide an indication of the business's ability to repay all its debts once all of the firm's assets have been sold. Harrington and Wilson (1989), meanwhile, provide an indication of the firm's ability to withstand risks by providing information about the employee's ability to continue operating after significant financial difficulties. The non-pharmaceutical interventions introduced because of COVID-19 affected the cash flows of many companies as some were force to downsize and even close down in worst case scenario.

2.2.2 COVID-19 and Return on Investment

Return on investment is defined as the ratio between total income (over a period of time) and investment (costs incurred by investing in other resources over a period of time). High Return on Investment (ROI) means that investment returns are well compared to its cost as a performance measure. Because of its flexibility and flexibility it becomes a popular metric. More importantly, Return on Investment can be used as a standard measure of investment profit. Investment efficiency or comparisons of several different investment performance can be assessed using the Return on Investment financial performance metrics. Return on Investment is one way to link profits to investments in economic terms. With production affected by the non-pharmaceutical interventions to fight COVID-19, many companies incurred losses hence the return on investment was lowered as production was reduced. A lot of companies needs to be cushioned to continue with their operations.

2.3 Reviews on the previous related pandemics.

Previous research has found that during a pandemic, the number of hours worked drops dramatically because of the illness and fear of infection, resulting in a reduction in aggregate supply. The lockdowns result in lower retail sales and a sharply reduction in recreational activities (visit to sporting events, restaurants, theatres e.tc). Government intervention to stop the virus from spreading has an effect on supply chains, which has an impact on international trade. Due to fixed short-term costs and revenue drops, firms experiencing dropping sales and output incur diminishing profits. The impacts are sector-specific: the hospitality and personal services industries are the hardest hit, while the pharmaceutical and medical-equipment industries remain unaffected, these two sectors are likely to benefit.

The 1918 pandemic had a different impact in different parts of the United States. Despite the fact that certain localities were able to take precautions such as closing schools and churches to minimize the spread of infection, there was a strong association between population density and deaths, as seen by cities within US states having greater fatality rates than rural areas (Garrett, 2007, 2008). Furthermore, the influenza pandemic attacked white people harder than it did non-white people. The majority of the urban population (which has a larger population density than rural areas) was at the time (over 90 per cent). Furthermore, the mortality rates for those aged 18 to 40 were the highest and for males within this age group. This is markedly different to the COVID-19 pandemic.

Due to a lack of reliable economic data, literature assessing the economic repercussions of the 1918 pandemic is based on printed media. According to the newspapers examined by Garrett (2007, 2008), businesses in one US state experienced a 40 to 70 percent drop. Every day, the average corporate loss was more than \$100,000. (2006 prices). Many companies, particularly those in the service and entertainment industries, saw double-digit revenue losses. Revenues increased for other businesses that specialized in health-care products.

Since 1918, several more pandemics have wreaked havoc on economies all around the world. During the spring of 2009, Rassy and Smith (2013) investigate the impact of the H1N1 influenza pandemic ('Swine flu') on the Mexican tourist and pork industries. Several countries put travel restrictions on Mexico, resulting in lower demand and flight cancellations. Many airlines have reduced flight frequencies or halted service to Mexico City for at least a month. The tourism industry, which is Mexico's largest service sector, was rebounding from the global financial crisis of 2008 at the time, but the H1N1 epidemic brought it to a halt. Consumers cut back after hearing that the H1N1 virus came from pigs.

Brahmbhatt (2005) investigates the social and economic consequences of avian influenza in East Asia, a human pandemic akin to the 1918 influenza pandemic. The findings show direct economic impacts to the chicken industry as a result of disease losses and control measures implemented. Poultry losses result in financial losses for farmers and have an influence on the poultry supply chain and sector as a whole, with a 15% drop in poultry output in Vietnam expected to cost the country about 0.1 percent of GDP. Furthermore, distributional consequences from rural populations' loss of livelihood and industrial and commercial poultry farmers' loss of income and competence offer potential problems. Findings from the potential impact of the flu epidemic suggest a simultaneous decline in revenue and global outcomes. The magnitude of this loss is estimated to be \$ 1.5 to \$ 2 trillion (2005 dollar), which represents a 5 percent decline in global GDP in one year. In addition, unincorporated control measures to prevent infection may result in significant demand especially in the areas of services such as leisure, retail, tourism and mass transportation. Also, the potential impact of employee absenteeism, disruption of business operations and production process and the transition from business to routine to more expensive processes could lead to asset shocks which could affect supply chains at national and international levels. Emergency social and policy measures such as segregation of people and travel and trade restrictions imposed by regulatory authorities to reduce or reduce the epidemic may lead to disruption of procurement and temporary deterioration of domestic and international trade services and services. Apart from the immediate costs associated with disruption, the consequences of illness and death caused by the epidemic can lead to potential losses due to declining labour supply and productivity globally. This effect depends on the effect on the population (affected age group), infection and risk of disease. Other economic implications range from the cost of hospitalization and treatment. At a robust level, the findings suggest that strong firms are likely to face a significant downturn in sleep demand and cash flows caused by the epidemic with minimal financial damage. These will be firms that have grown over the years with strong balance sheets and cash flow available for six months to two years. Firms in the public sector such as tourism, tourism and aviation that do not have the skills may face major setbacks.

McKibbin and Sidorenko (2006) modelled a series of scenarios (soft, medium, heavy and large) using the USA to assess the effects of a pandemic outbreak on the global economy. Four cases

mimic the 1968-69 flu, Hong Kong (mild) flu, 1957 flu, Asian (middle) flu, 1918-19 flu, Spanish (severe) flu and 1918- flu 19, Spanish flu without the flu high survival rates for the elderly (ultra). The findings of the study show different levels of impact on the global economy with a small estimate that could lead to a death rate of 1.4 million people and a global loss of approximately U330 billion (2006 dollar total) in the recession. This means a loss of 0.8 percent of GDP. The findings also boost the cost of the global economy as the epidemic rate rises. As a result, the high-profile situation resulted in higher economic costs that could lead to a recession that could cost 142.2 million deaths and a total GDP loss of \$ US4.4 trillion (12.6 percent). In addition, the magnitude of the economic downturn varies in all the different economies with global currency from the affected economy to the least affected. Also emerging from this effect is the effect of this epidemic on labour markets. Rising mortality and morbidity rates are leading to a decrease in the supply of labour and a decrease in the production of low-income earnings, especially in countries facing severe financial shocks. It is thought that the decline in productivity will lead to slower global growth, and inflation will shift from the most affected economy to the least affected.

The epidemic has an impact on both supply and demand (Swift, 2009). The number of hours worked is greatly reduced due to illness and the fear of infection, reducing the amount available. Lockdown closures lead to lower retail sales and significantly reduce recreational activities (visiting sports events, restaurants, theaters, etc.). Government interventions to curb the spread of the virus affect supply chain, which also has an impact on international trade.

2.4 Coronavirus Disease of 2019

The World Health Organization defines the coronavirus as a virus that infects the respiratory system. This virus was named COVID-19. Coronavirus causes common colds in serious illnesses such as Middle East Respiratory Syndrome (MERS-CoV) and Server Acute Respiratory System (SARS-CoV). Corona virus is a zoonotic which means it is transmitted between animals and humans. The virus spreads quickly and a person can get COVID-19 in many ways such as accidentally inhaling saliva from a cough or coughing of people with COVID-19, holding their mouth or nose without washing their hands first after touching an infected object of COVID-19 patients and close contact with COVID-19 patients, for example touching or moving.



Figure 2.0 COVID-19 Cases in Zimbabwe

Source; (MOH, 2020)

2.5 Empirical Review on COVID-19 pandemic.

The books on the economic consequences of COVID-19 are still young because as we write, the epidemic is still growing worldwide and some regions are becoming more and more impressive. A good basis for starting a review is to collect the same historical event. Studies on the economic effects of infectious diseases go back to 1918-19 Spanish-Influenza. Looking back, the Great Influenza provides the first basis for research on the macroeconomics results of the COVID-19 epidemic. The previous epidemic sheds more light on economic costs, especially in the presence or absence of strong security policies. The basic effects of the previous major epidemics of epidemics such as the 1918 flu included; (i) low sales due to customer feelings, (ii) high costs in the service sector as they can be directly affected and (iii) difficulties in economic activities, among others (Boissay and Rungecharoenkitkul, 2020; Barro et al. 2020).
From a pessimistic perspective, Farnaro and Wolf (2020) mimicked the impact of COVID-19 on macroeconomic policy to assess the economic implications of the epidemic. They argue that COVID-19 will create a negative impact on the global economy by forcing factories to close and disrupt global supply chains (OECD, 2020). The virus has also suppressed the global need. They found that coronavirus caused a decrease in demand and a lack of random activity. Social isolation affects households' ability to spend money. The major economic impact of negative supply shock is due to the spread of coronavirus. Economic workers are optimistic about future growth, employment and economic activity. They concluded that the corona virus would cause the shock of a temporary improper supply. Intensive policy interventions, which include both finance and finance, can prevent negative shocks to the provision of services that could seriously affect employment and productivity.

The IMF currently estimates that Zimbabwe's Gross Domestic Product will decline by 7.4 percent by 2020. In a country with an economy that grew by an average of 6.5% in 2019, the continued decline in this rate, especially in the context of the economic downturn be a disaster, affect, unjustly, the poor and vulnerable, youth and young entrepreneurs, small and informal businesses.



Figure 2.1 Zimbabwe GDP growth rates 2009 – 2020 (actual & projected figures) %

Source; Zimbabwe Statistical Agency (2020) and IMF estimates

Shlomo Maital., et al. (2020), this research examined and summarized recent reports on the impact of COVID-19 on the global economy. The research asserted that the major impact of the COVID-19 novel outbreak would be on the market side, but the solutions currently being considered are very much on the demand side. It also concludes that under increasingly favourable conditions, a global economic downturn is more likely.

The study was conducted by S. Mahendra Dev., et al. (2020), impact of COVID-19 outbreak on the Indian economy. This study analysed the state of the Indian economy in all sectors before and after the outbreak. It noted that measures such as national closures, borders on international trade and commerce, the closure of non-essential services, restricted movements, would all lead to disruption of the Nation's economic life. In addition, research has shown that the magnitude of the economic impact will depend on the severity and duration of the health crisis, the length of the closure period, how effective the closure is and how the situation in which the closure is removed.

Reasonable predictions about the economic and social effects of the modern epidemic can be made on the basis of the effects of the 1918 epidemic. Mortality may be related to race, income and housing, and higher mortality rates among densely populated urban areas that may have higher incomes and lower ethnic groups than ethnic or rural areas. Locking and segregating people will damage businesses in the short term. Some firms may lose most or all of their revenue (for example restaurants), while others may have an increase in business (for example, online delivery firms). However, it seems unfortunate given the nature of the death profile that the COVID-19 epidemic would lead to a shortage of workers of the existing type during the 1918 epidemic.

Richard Baldwin., et al. (2020); the purpose of this research was to evaluate the commercial impact of COVID-19 and to look beyond it. The study finds that COVID-19 is a commodity and demand that will affect international trade in goods and services. The important thing that was taken was that the virus may be as economically contagious as it is medically. The study concludes that there is a risk of permanent damage to the trading system driven by the response and firm policy. The study warned not to misinterpret the epidemic as a reason to fight globalism. The study also highlights the significant differences between the 2008-09 economic downturn and the global economic downturn and the potential after COVID-19 that the 2008-09 economic downturn had a significant impact on the demand side, but not much of an impact

on the supply side. However, COVID-19 is likely to have a negative impact on both sides - demand and supply side.

2.6 Gap Analysis

There are limited studies in Zimbabwe conducted on the effects of the epidemic, COVID-19 on the profitability of manufacturing companies. Many studies were conducted in Nigeria and India. There is no published evidence to suggest that similar studies have been conducted in Zimbabwe in general to address similar issues. This study aims to close the information gap in the literature on the effects of the epidemic, COVID-19 on the profitability of manufacturing companies that take the city of Mutare as a reference.

2.7 Summary of Literature Review

This chapter provides the literature review on the effects of the epidemic on the profitability of manufacturing companies in Zimbabwe. The literature was mainly reviewed considering the previous pandemics and the current pandemic which is COVID-19. The next chapter provides the research methodology.

CHAPTER THREE

Research Methodology

3.1 Introduction

This chapter will discuss the research design; instruments used for data collection as well as the map of the area under study.

3.2 Research Design

This study used both quantitative and qualitative methods to assess the impacts of COVID-19 on the profitability of the manufacturing companies. The researcher chose quantitative method as it allows to measure and analyse data. It has the ability to measure data using statistics. Questionnaire was chosen. Qualitative method of research probes through, interviews, focused group discussions and observations thus the necessary data is assembled for examination to discern the real meaning. The researcher chose qualitative method of research because it gives detailed information and rich data in the form of comprehensive written descriptions or visual evidence such as photographs

3.3 Sampling

The researcher target twelve manufacturing companies in the city of Mutare that are listed on Zimbabwe Stock Exchange. The researcher used random sampling method to pick three manufacturing companies with a population of 244 workers. Small pieces of paper with names of companies were prepared and put in a box. The researcher randomly picked 3 papers from the box which were then used for research. Random sampling requires a minimum knowledge of population. It is also free from subjectivity and free from personal error. It provides appropriate data. The researcher chose random sampling mainly because it's not time consuming and costly.

~		~
Company	Number of workers	Sample
1		
Company A	121	12
Company /	121	12
Company B	47	5
company D	1,	5
Company C	76	8
company c	10	0
Total	244	25
Total	211	25

Table 3.0 A sample of companies and their workers

Source; Researcher (2021)

The 10% of the total employees were chosen from each manufacturing company. For the study findings to be generalised to the population with limited error, a sample should comprise a minimum of 10% of the population under study, (Sinero M. S, 2012). Thus the researcher chose 10% as illustrated on the Table 3.0 above.

Systematic sampling was also used. A systematic sampling method was used to come up with the workers who participated in the research. Every 10th worker on the list per company was chosen to participate. Systematic sampling was chosen because it reduces cost, sample may be a representative of population. Observations of the sample may be used for drawing conclusions and generalizations. However, Information of each individual is essential.

3.4 Research methods

Triangulation was used by the researcher. The idea is that one can be more confident about the outcome if different approaches lead to the same outcome. Triangulation is a powerful method that enables data validation with the opposite validation from two or more sources. In particular, it refers to the use and integration of several research methods into the study of the same object.

3.4.1 Questionnaire

The researcher chose a questionnaire as a tool to gather data. A series of questions were prepared and administered by the researcher. Twenty-five (25) questionnaires were administered to three companies by the researcher. The questionnaires were sent via WhatsApp

and email. The respondents were given ample time to look into the document as well asking questions. The researcher self-administered the questionnaires as there was need for translation from English to vernacular language. The questionnaires were attended to and returned to the researcher after two weeks. The researcher selected the questionnaire because it is effective, a large amount of information can be collected from a large number of people in a short and inexpensive way (Arkoyd and Hughes 1981). In addition the results can be measured quickly and easily using software.

Questionnaire guide see Appendix B

3.4.2 Interviews

The in-depth interview guide for key informants was designed to capture data from people considered to be knowledgeable about the research. These interviews were conducted with various groups of people including the director of finance, the executive director and the Chief Executive Officer. Discussions were used to obtain data on the impact of COVID-19 on the profitability of manufacturing companies. People were interviewed via voice calls and WhatsApp video calls to reduce close contact as followed by COVID-19 rules. The continuation of discussions in this study facilitates flexibility, as there is always the opportunity to rearrange questions (Bojnec and Latruffe, 2008). The interviews also provided an opportunity for the researcher and the interviewees to have a much broader discussion than what questions could be allowed. However, respondents may provide answers that they believe the interviewer wants to hear rather than really believe and are often seen as biased when multiple questions are asked.

Guide see Appendix D

3.4.3 Focused group discussions

This can be done informally. The researcher organised a WhatsApp focused group discussion that consisted of twelve people. Focused group discussions were selected with equal gender units so as to allow all members to participate within the project. Questions were asked. The purpose for conducting group discussion was to extract more information from the local people; this was done by letting the discussions be local people centred and allowed them to express their views about the study. Responses were recorded and analysed.

3.5 Data collection procedure

Data collection was done using primary and secondary data methods. The second data was collected by analysis of published texts and grey documents. This was done in order to provide the basis for an experimental evaluation study. Basic data collection tools include the use of questionnaires, observations, discussions, and focus group discussions.

Several steps were followed in data collection. First, the researcher contacted the company's CEO's office for approval to conduct research at their companies. The researcher explained the purpose and significance of the research to CEOs before granting approval. After approval, the researcher makes a formal request for an interview from the management team. Once the researcher receives approval, an appointment date for the interview is made to avoid interruptions.

Interviews were conducted for all the people listed above. The researcher has made it clear that he introduces himself and explains the purpose of the research each time he interacts with the interviewees. Focused group discussions with staff and managers as well as key selected individuals follow this up. One focused group interview was conducted with people from different parts of the company. Questionnaire management is done at the end. The questionnaire presented itself to the twenty-five respondents via WhatsApp and selected emails using a systematic sampling method.

3.6 Data analysis and presentation

After data collection and analysis it is presented in a way that reveals and reveals the purpose of each information collected. Some data is presented in a table, bar graphs or pie charts for summary data. Percentages will also be used for comparative benefits. Microsoft excel was used to analyse collected data. Used to calculate percentages and frequencies and to present data in the form of pie charts and graphs. Bojnec and Latruffe (2008), noted that data analysis is used to reduce the amount of data into a compact form that reflects common styles and relationships between variables. The purpose of statistical analysis is to provide a multifaceted way of integrating important aspects of data. So this study used this insight to extract important facts especially from secondary data.

3.7 Limitations

Some people in the study area were reluctant to participate for fear of political harassment and the researcher was considered a political spy. Another major problem was managing a list of questions. The questions in English had to be translated first as the illiterate respondent encountered difficulties in understanding some of the questions.

3.8 Map of the study area

Figure 3.0 Map of the study



Source; Google

3.9 Summary

This chapter is based on the research methodology and aims to outline the materials and methods used in this study. A map of the study area was displayed to show its location. In particular, research tools, research design, data collection processes, data analysis and research limitations were the main themes of the chapter. In order to increase the authenticity and gain data reliability, various tools are used to collect data. Tools include interview guide, focused

group discussions, questionnaires and observations. The questionnaire was written in such a way that all the objectives of the research project were addressed. Short and closed questions are mostly used for simple response to sample people and analysis. Interviews are designed to capture data from people who are considered knowledgeable about the research. One focused group discussion was selected by gender equality units to allow all members to participate in the project. Data collection processes are performed using primary and secondary methods. Basic data collection tools include the use of questionnaires, observations, discussions, and focus group discussions. Secondary data was collected in grey-printed documents. Both the primary and secondary data collections were used to obtain data and information mainly on the effects of COVID-19. During the design of the study, quantitative, quality and methodological case studies were used. Random and systematic sampling methods were used to select the target population. Limitations in the study were also defined.

3.10 Conclusion

This chapter looks at the structure of research, methods and resources for data collection. The data collection process, sampling process and sampling techniques were discussed. A combined and random sample was used to select respondents. Discussion guidelines were used to obtain information and questionnaires. The data analysis process has also been described. The next chapter will focus on data presentation, analysis and discussion of the findings.

CHAPTER FOUR

Research Data Presentation and Analysis

4.0 Introduction

This chapter gives the results of the data obtained through presentation and analysis of study findings so that conclusions can be drawn from the investigation of the effects of epidemic, corona virus disease of 2019 on the profitability of manufacturing companies. The collected data obtained from the representatives company managers of the manufacturing companies selected. The data gathered were presented by use of tables, bar graphs and pie charts and analysed to come up with research findings.

4.1 Age of Respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
20-29	2	8	8	8
30 - 39	4	16	16	24
40-49	9	36	36	60
50 - 59	6	24	24	84
60 & Above	4	16	16	100
Total	25	100	100	

Tables 4.1 Age of the Respondents

The above data that is the age of the respondents presented on table 4.1 is statistically portrayed in a bar chart in figure 4.1 below.



Figure 4.1 Responses on the age of Respondents

From the study, a cumulative of 84% of the respondents are in the range of the age brackets of 20 - 59 years whilst 16% are above 60 years. There was no respondents of the age below 20 years. This illustrates that manufacturing company representative managers generally are active between the ages of 20 - 59.

4.2 Gender of the Respondents

The study also requested the respondents to indicate their respectful gender. From the analysis of the findings, out of 25 responded, 16 respondents (64%) were from the male genders, 9 respondents (36%) indicated females. Analysis from the study, this implies that the majority of the respondents under the study responded to the questionnaire and the interview are male than female company representative managers. This implies that male representative managers are many as compared to female. The findings are in agreements with other studies and reports, which indicate that the large proportion of company representative managers in the country is comprised of male as compared to females.

Source; Researcher (2021)

Figure 4.2 Gender Distribution of the respondents



Source; Researcher

4.3 Level of Education

The table 4.2 below, it illustrates the findings of the research in respect of the level of education of the respondents attained.

Table 4.2Responses on the Level of Education

Level of Education	Frequency	Percent	Valid Percent	Cumulative Percent
'O' Level	4	16	16	16
'A' Level	7	28	28	44
Degree	9	36	36	80
Masters	5	20	20	100
Total	25	100	100	

The information shown in the table 4.2 above is statistically portrayed in the bar chart below in figure 4.3. These figures reflect the level of education of the respondents.





Source; Researcher (2021)

The figure 4.3 above illustrates the attained qualification levels of respondents who participated in the research. It reveals that 16% of the respondents hold 'O' Level and 28% hold 'A' Level. It also shows that 36% of the respondents are degree holders as the highest level of qualification. The figure also illustrates that the percentage of 21% reported that they possess the highest level of qualification with a degree plus, with masters and professional qualifications like CIMA. The results indicate that the company representative managers on this study are well educated. From the research findings illustrated above, the researcher concluded that the larger proportion of the respondents on this study had the better level of understanding and knowledge which suits the research hence the responses from respondents can be relied upon.

4.4 Which department do you work in?

The findings from research revealed that 28% of respondent were working in the Finance department and 32% were working under Production department. The 22% and 18% of the respondents were working in the Sales department and other departments respectively. From the information indicated in figure 4.4 below, it helps the researcher that all department are catered for hence the responses they provided can be relied upon.





Source; Researcher (2021)

4.5 Respondents' working experience in manufacturing companies.

The respondents were asked a question concerning the number of years that they have been working in the manufacturing company, the mixed results from respondents were obtained and this was summarised on the bar chart on figure 4.5 below. From the analysis, it shows that 10% of the respondents who participated in the research have been working for less than one year, 36% were between one and five years and finally the remaining 49% were above five years of experience in the manufacturing company. Brink (2013), mentioned that the targeted population of the respondents should possess at least five years of working experience to ensure reliability of responses. Since 83% of the respondents have been in the manufacturing firm for more than one year, their response can be considered as fair and valuable in this research because the respondents possess adequate knowledge about the organisation.



Figure 4.5 Respondent work experience in manufacturing companies

Source; Researcher (2021)

4.6 The number of years the manufacturing firms in operations

The study sought to determine the number of years the manufacturing firms has been in operations. This was to help the researcher to get essential information with regard of manufacturing company operations and financial performance. From the analysis of the findings it resembles that majority (58%) of the manufacturing firms within Mutare have been in operation above 9 years which was enough indeed to give out information required by the researcher while 25% depicted that have been in operation between five and eight years and only 17% revealed that they operated between one and four years. The findings were illustrated in figure 4.6 below.



Figure 4.6 the number of years the firms in operations

Source; Researcher (2021)

The Current Effects of COVID-19 on manufacturing Companies

4.7 Manufacturing companies are seriously affected by COVID-19

Table 4.3 Manufacturing companies are seriously affected.

Response	S	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
		8				6
Respondents	1	11	8	2	4	0

Findings from the Likert scale presented to the respondents above, it reveals that 44% of the respondents are strongly agreed that manufacturing companies are seriously affected by COVID-19, in terms of the supplying of the raw materials to the manufacturing sites were hampered, the prices of the raw materials were unstable and the respondents stated there was declining of revenue which results in low purchasing power which certainly have a great impact on the sustainability of the manufacturing industry. The 32% of the respondents they agree that the manufacturing companies are seriously affected by COVID-19. The total of 8% of respondents were not sure that the manufacturing companies are seriously affected by COVID-19. The findings are in agreement with the study carried by Ncube (2020), which revealed that manufacturing are badly affected by COVID-19 pandemic as the Zimbabwe was witnessing a

great reduction in the manufacturing volume index. The remaining 16% of the respondents who are under pharmaceutical sub-sector, they disagreed that their manufacturing firms were seriously affected by COVID-19 because they stated that they were operating as usual. There were no respondents strongly disagree that manufacturing companies are seriously affected by the unprecedented virus COVID-19. The pandemic has disrupted the economy worldwide and was marked the first virus event since the 1918 H1N1 Spanish influenza (flu) pandemic to demand an urgent global healthcare response. The major risks posed by COVID-19 pandemic are arised from the indirect effects of control measures on health and core societal activities.



Figure 4.7 Manufacturing companies are seriously affected by COVID-19

4.8 Departments greatly affected by COVID-19

Findings from the study, indicated that 42% of the respondents mentioned that Production Department were affected mostly since the production activities were halted. The 36% of the respondents stated that Sales Department was the second department affected by COVID-19 since their client base were decreased which eventually caused their revenue to continue fall sharply. The findings also indicated that 14% of the respondents noted that COVID-19 had the mild effects on the Finance department since the department faced the challenges of cash flow liquidity and difficulties in managing their debts obligations. The remaining 8% of the respondent stated that COVID-19 also affects the other departments at the organisation.

Source; Researcher (2021)



Figure 4.8 Departments greatly affected by COVID-19

Source; Researcher (2021)

4.9 Specific manufacturing Units affected by COVID-19

The findings after the researcher asked the respondents to identify the most severely affected business areas, the respondents stated that the biggest impact of COVID-19 lockdown was on revenue. From the findings, 44% of the respondents stated that manufacturing revenue had declined due to restrictions on the movement of the clients and 34% of the respondents indicated that they had significant challenges on providing their goods and services though they were operating remotely or complying with government protocols as the manufacturing firms continued to operate. The manufacturing's costs of production increased as stated by 16% of the respondent. The respondents added that during COVID-19 they incurred additional extremely heavy costs related to hygiene practices. The 6% of the manufacturing respondents their client base has affected by the imposition of lockdown. The respondents added that they lost their customers to their competitors due to failure to deliver goods and services within agreed timelines.



Figure 4.9 Specific manufacturing units affected by COVID-19

Source; Researcher (2021)

4.10 COVID-19 effects on the production and operations on manufacturing firms.

Figure 4.10 below illustrates that 47% of the respondents stated that the manufacturing companies faced the problem of reduction in orders. 25% of the respondents reported that manufacturing faced the challenge of value chain disruption. The findings agrees with the findings found by Tanyaradzwa et al, (2021) which revealed that the outbreak of unprecedented COVID0-19 pandemic disrupted food processing manufacturing firms. The findings from the figure 4.10 below states that 15% of the respondents mentioned manufacturing companies had the challenge of disruption of logistics. 9% of the respondents noted they had the problem of inability to deliver the goods and services of outstanding orders before lockdown which resulted in the cancellations or delays of orders, this agrees with the findings from the study carried out by Song, Kang and Jang (2019) which revealed that there is less customer arrival, the manufacturers were not able to reach their respective clients due to lack of delivery options. The 4% of respondents mentioned that the manufacturing companies faced the challenge of insufficient protective equipment.

The respondents added that the logistics on manufaturing industry has become the weak spot for manufacturing companies after breakout of the deadly virus COVID-19. For the domestic logistics in Zimbabwe, long-distance road transportation were mostly impacted because of the highway control. The COVID-19 pandemic caused the severely drop in the demand for logistics services. More essentially, the quarantine policy enforced by the Governmet of Zimbabwe has led to decrease in the supply of drivers and trucks since the major source is from South Africa



Figure 4.10 COVID-19 effects on the production and operational challenges faced by manufacturing.

4.11 Main operational challenges faced by manufacturing during COVID-19 lockdown

Findings from the analysis indicated that 45% of the respondents of manufacturing firms reported that cash flow shortages was the biggest operational challenge during the pandemic since manufacturing companies were not operating at full capacity to generate more revenue. The firms also faced the challenge of increased difficulty in obtaining financing. 25% of the respondent reported that fulfilling of contracts was another major challenge for many manufacturing companies. Remaining 30% of the respondents reported the shortage of raw materials and limited workers affects the operational activities. According from the study carried by Sanchez-Ramirezet et al and Altig et al (2019), also indicated that manufacturing firm faced the impact of unfilled orders and reduced production. The respondents added that the number of hours worked in the day have gone down during COVID-19 pandemic which resulted in low efficiency and effectives of manufacturing firms' operations. Pradhan (2020) also revealed that COVID-19 caused stalled production that is shortage of raw materials, lack

Source, Researcher (2021)

of workers and factory shutdown. COVID-19 crisis continue to affect many countries across the globe. It was reported that the working hours were lost in 2020 globaly. This marks four times greater than the job losses during the 2009 financial crisis.

The respondents also indicated that the manufacturing companies were operating at higher percentage of production capacity before the outbreak of this unprecedented COVID-19 but this percentage had declined sharply. This indicated a significantly disruption of production capacity of manufacturing companies by COVID-19 pandemic.





4.12 Financial impact of COVID-19 on manufacturing

The figure 4.12 below illustrates that the 95% of COVID-19 impact were adversely negative to the manufacturing sub-sectors while only 5% indicates some form of positive impact. The findings agrees with the study carried out by Tucker (2020), which revealed that the outbreak of COVID-19 caused bankruptcy for many well-knowns brands in many manufacturing sector as consumers stay at home and economic are shut down. COVID-19 pandemic has not spurred the global financial markets. During the COVID-19 many manufacturing firms in different countries facing the challenge of currency devaluation as it was continued to spread worldwide

Source; Researcher (2021)





Source, Researcher (2021)

4.13 Main financial challenges faced by manufacturing during COVID-19 pandemic

The findings from the illustration below on figure 4.13 revealed that high proportion of 42% of the respondents mentioned that the payment of employees' salaries and social security contributions were manufacturing companies' financial concern. The total of 58% of the respondents noted that the manufacturing companies' ability to pay the outstanding invoices, loans and utilities was the second most reported financial challenge as it stated by respondents. Due to expected cash flow shortages in the following months, forcing the manufacturing companies difficult to decide and make choices which payments to prioritize.

Figure 4.13 Main financial challenges faced by manufacturing firms



Source; Researcher (2021)

4.14 Quantified financial impact of COVID-19 lockdown on manufacturing companies.

The researcher attempted to quantify the financial losses and he noted that a combined 24% of the respondents lost US\$500 to US\$5000 during the COVID-19 lockdown. The 15.75% of the respondents lost US\$5001 to US\$6500. The largest losses were between US\$6501 and US\$8000 where 25% lost potential revenues. The 20% of the respondents lost between US\$8001 to US\$9500. 15.25% of the interviewed respondents lost more than US\$9500 during the period. The respondents argued that the COVID-19 restrictions measures were harsh to the way the manufacturing companies were operating since the number of working hours were reduced and the number of labour force were reduced as well and they failure to meet targets.



Figure 4.14 Quantified financial losses of manufacturing companies during COVID-19

4.15 Implications of Lost Revenue on manufacturing companies

The manufacturing companies were not able to restock on the raw materials and not able to pay employee's wages due to loss of revenue during COVID-19 crisis. The figure 4.15 below indicates that the 39% said they face the challenges of restocking in the immediate future and 33% face the challenges of paying the employees' next salaries. It also indicates that 23% they face the challenges of the payment of fixed costs such as rentals. The remaining 5% indicates

Source, Researcher (2021)

that they would have to close their manufacturing operations due to too severe of their financial losses.



Figure 4.15 Implications of lost revenue on manufacturing

4.16 Impact of COVID-19 lockdown on Supply Chain.

From figure 4.16, 56% of the respondents said that the supply chains were negatively impacted by completely closures of the suppliers. 16% indicated that some suppliers were remained open and they are operating with the compliance to the government protocols. The respondents of 28% mentioned that some suppliers were operational on a delivery basis with added cost. Despite, the additional costs of delivery were being passed on to manufacturing firms. This increased cost would mostly likely be passed down to customers resulting in the corresponding increase in the costs of manufacturing goods.

Source; Researcher (2021)

Figure 4.16 Supply Chain challenges experienced by manufacturing companies during COVID-19 pandemic



Source; Researcher (2021)

The respondents mentioned that with shutdown of the factories due to outbreak of unprecedented COVID-19 forced the production to pause in manufacturing firms and the global supply of raw materials was shrunk with the reduction and delay of export orders, particularly those that depends on supply of goods from China, since China is the biggest manufacturing site for raw materials for many industries. They also added that the supply and demand were severely affected with the continuous spread of infectious disease COVID-19. According to Tanyaradzwa et al, (2021), also revealed that the COVID-19 crisis has disrupted all aspects of the supply chain of food, including the logistics related to food handling and distribution.

4.17 Medium to long term impacts of COVID-19 on manufacturing

Findings from the study revealed that 40% of respondents mentioned that the return on investment (ROI) is the most significant medium-to-long term impacts of COVID-19 on manufacturing companies. The manufacturing performance, the profit and loss figures calculated on the first and second quarter proved that manufacturing companies' sales volume has already sharply fall and the respondents also expect the sales volume to decrease further due to the rise of pandemic cases locally and globally. The respondents noted that they observed a huge loss in revenue during the second quarter of 2020 which will negatively affect the profitability of the whole year. 20% of the respondents stated that reduction in trade relationships that is relationship involving manufacturers and wholesalers/retailers were disrupted since they generally spend on trade promotion by providing retailers extra product.

Due to unprecedented COVID-19, manufacturing companies may not be able to provide such promotions. The respondents noted that they reduced these trade promotional costs in order to survive during this crisis period. 14% of the respondents mentioned that another significant medium-to-long impact of COVID-19 was totally restructuring of the supply chain and a rebuilding supply chain relationships. The respondents added that during the COVID-19 crisis period the distributors who purchase their manufacturing products directly from them, they faced the challenge that their operating expenses are higher than their revenue, hence many distributors are currently forced to close. The 16% of respondents stated that reduction in how much the manufacturing industry as a whole contributes to the GDP. Respondents added that the shaky situation in the manufacturing industry during the COVID-19 crisis period may reduce the sales and revenue of the industry leading to a decrease in contribution to GDP. The remainder 10% of the respondents mentioned that there are other short term impacts to the manufacturing companies such as working capital and the product expiring.



Figure 4.17 Medium-to-long impact of COVID-19 on manufacturing companies.

Source; Researcher (2021)

Manufacturing Companies' Compliance to Government Restrictions.

4.18 Policies measures employed by manufacturing firms to adhere to Lockdown.

In compliance to the measures of lockdown that were put in place by the government of Zimbabwe, 34% of the respondents from figure 4.18 below, mentioned that they shut down their operations completely and most of them adopted a wait and see approach. 38% of the respondents closed their physical workshop and continued to work remotely. Findings from figure 4.18 below revealed that only proportion of 12% of respondents stated that they remained operational in their workshop space during the lockdown. The respondents who continued to operate 16% indicated they had essential staff only at the workplace with strict measures in place for social distancing and maintained high standards of hygiene.





Source; Researcher (2021)

4.19 Measures by manufacturing firms to curb the spread of COVID-19.

The researcher asked the respondents about what the measures manufacturing companies put in place to reduce the spread of unprecedented virus COVID-19 in their workplace. Findings from the study revealed that 36% of manufacturing companies had started to enforce social distancing in their workplace to reduce unnecessary contact with other employees. 34% had put in place measures to increase the standards of hygiene by supplying employees with face masks and making available chemicals and equipment to ensure hygiene is prioritized. The equipment made available to the employees includes sanitizers, gloves, hand washing soap and

temperatures thermometers at the point checks. 20% had also initiated online engagement of staff members as a way of allowing employees to destress and find ways of coping with the loneliness and routine changes that arose due to lockdown. The remainder 12% encouraged and provided resources for staff to work remotely.

The respondents added that these measures disrupted the operations of the manufacturing firms. This agrees with the findings carried by Dai et al. (2020) which revealed that economic stagnation was emanating from the measures placed to curb the spread of the pandemic and mitigate its impact means that the manufacturing firms were unable to resume their operational activities.





Source; Researcher (2021)

4.20 Strategies to deal with the impacts of cash flow shortage on manufacturing companies.

Findings from the study revealed that in order to offset the impact of the cash flow shortage, the large proportion of 48% of most manufacturing companies chose to reduce their operating costs and 30% of the respondents chose to negotiate with lenders. While 14% of the respondents chose to take out loans from commercial banks and microfinance. Only a very small percentage of 8 of the respondents chose equity financing.

Figure 4.20 Dealing with cash flow shortages.



Source; Researcher (2021)

4.21 Adjusting of working conditions can coping up with the challenge of limited workforce during COVID-19.

Table 4.6 Adjusting working conditions.

Response	Strongly	Agree	Not Sure	Disagree	Strongly
	Agree				Disagree
Respondents	13	9	3	0	0

Findings from the study which presented on the Likert scale above, it reveals that 52% of the respondents are strongly agree that the limiting production can coping up the challenge of limited workforce at the workplace during COVID-19 period. The 36% of the respondents they agree that the reducing pre-set targets can coping up the challenge of labour in manufacturing companies during COVID-19. The remaining total of 12% of respondents were not sure. There were not respondents disagree and strongly disagree that adjusting working conditions can coping up the challenge of limited workforce in manufacturing companies during the unprecedented virus COVID-19.



Figure 4.21 Adjusting working condition to cope the challenge of limited workforce

4.22 Coping up with the challenge of lack of inputs

The findings from the study as figure 4.22 illustrates, 52% of the respondents noted that their manufacturing firms reduced their production capacity to deal with the challenge of shortage of inputs. The second most preferred option among 26% of the respondents was to explore new procurement channels so as to identify key areas that require modification to improve their business performance. The figure also illustrates another coping measure preferred by 13% is to delay the delivery of their products, while 9% of the respondents considered the possibility of creating new channels of production. The latter is an important strategy that can enhance business marketing and give manufacturing an edge in terms of speed and efficiency

Source; Researcher (2021)

Figure 4.22 Dealing with inputs shortage



Source; Researcher (2021)

4.23 Summary

This chapter has presented and analysed all the data that was collected using the selfadministered questionnaire and online interview techniques. The descriptive statistics including bar charts, pie charts and tables are used to aid the analysis of collected data because they are effective illustrations of resembling the relations and trends. The next chapter looks at the conclusions and the recommendations of the study which were accrued from this chapter.

CHAPTER FIVE

Summary, Conclusion and Recommendation

5.0 Introduction

This study was conducted to investigate the effects of the COVID-19 epidemic on the profitability of manufacturing companies. This chapter contains the summaries, conclusions and recommendations the researcher came up with after conducting the study. The conclusions were based on an analysis of the research objectives that led the researcher to make recommendations based on the data collected and the findings of the researcher. These recommendations are expected to assist organizations in the manufacturing sector to implement various strategies to improve their financial performance. The research questions and objectives are discussed in the first chapter, and this chapter will now draw conclusions from the study.

5.1 Summary of the Research Results

The study aimed at investigating the impacts of COVID-19 on the profitability of the manufacturing companies in Zimbabwe. The study revealed that companies were greatly affected in a negative way by COVID-19. The introduction of non-pharmaceutical interventions brought about many constraints to the way the manufacturing companies operating. Lockdowns and curfews were introduced, many companies had to downsize. Social distancing and limited number of people at work places brought about a seriously negative impact which resulted in the revenue lost of the manufacturing companies.

The researcher found that COVID-19 greatly affects the manufacturing industry, in terms of raw materials were hampered, the prices of raw materials were unstable and declining in sales which result in making huge losses by manufacturing companies, this certainly have an impact on the sustainability of the manufacturing industry. This indicated that the manufacturing business operations were adversely affected by COVID-19 pandemic.

Manufacturing firms have experienced depleted capital which led the layoff of workers. Findings from research indicated that manufacturing firms were suffering from the challenges of employee's salaries and social insurance, payment of accounts payable, utilities and loss of orders. The researcher found that firms reported a sharp increase in the operating costs. This revealed that the COVID-19 had a significantly disruption on the way manufacturing companies were operating. The findings from the research also indicated that the manufacturing firms experiencing falling sales and their production experiencing falling profits due to fixed short term costs and fall in revenue.

This research clarifies the aspects of the manufacturing sector that were impacted by the COVID-19 pandemic. The respondents mentioned that restrictions imposed by Zimbabwe local authorities had the highest impact on operational activities, followed by unavailability of workers and transport. They added that scarcity of raw materials and shortage in demand were reported to have highest significance. Moreover, increased workload and decrease in working days have had significant impact.

Restrictions on social contact forced some people to work from home or to not work at all, also lowered the production output. Exporting companies especially those that deal with commodities experienced a sharp fall in the prices of the commodities they export. Closure of the borders also affect the access to the raw materials.

The results also shows that COVID-19 has reduced profitability, affected liquidity in a negative way as well as return on investment. This was as a result of the great concern over the cash flow management during COVID-19 crisis period and this was because their revenue fall and the potential trade receivables delay their payments or they become insolvent and the banks also engaged in skeletal services.

Some companies in the healthy sub-sector that produces essentials realised an increases in profit as the demand for sanitizers, face masks and soaps increased.

Findings from the research concluded that uncoordinated control measures to avoid infection resulted in workplace absenteeism, the disruption in manufacturing activities and production process and a change from manufacturing business as usual to more costly procedures that lead to supply shocks which impacted supply chains at the national and global level. The findings also indicated that policy measures such as quarantines and restrictions on travel and trade imposed by Zimbabwe governing authorities to curb or contain the pandemic also lead to supply chain disruptions.

5.2 Conclusion

This study concludes that, COVID 19 has impacted greatly on manufacturing companies. It has brought with it direct and indirect impacts. Non-pharmaceutical interventions have been noted as a great challenge as it tried to minimise the spread of COVID-19 by minimising the movement of goods and services. Most companies were put in a tight position as access to finances, raw materials was minimize, halted and delayed most of the times.

Therefore, the research findings warrant the conclusion by the researcher that COVID have impacted negatively to a greater extent.

5.3 Recommendations

- ★ Recovery efforts should focus on stimulating demand and re-establishing disrupted markets
- ★ Zimbabwe's Purchasing Policy must select local businesses.
- ★ Government of Zimbabwe must remove 2% of IMTT.
- ★ Government must monitor the introduction of ZIMRA tax and payment methods and dates. PAYE payments, VAT, QPD time lines need to be extended or deferred.
- ★ Suspension of payments to statutory bodies such as NEC, NSSA, Standards Levy and Mutare City licenses.
- ★ Cash flow packages may be needed to reduce staffing and assist companies with operating costs.
- ★ There is a great need for policy shifts in infrastructure development to reduce business environment.
- \star Local producers should be protected from dumping.
- ★ Government must develop and implement consistent and reliable policies for business continuity.

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Appendix A

Letter of Introduction

61 Rydale Ridge Park

Harare

14 July 2021

Dear Respondent

RE; Request that you complete the attached questionnaire

My name is FLIGHT KUDZAI MAGWERE. I am a student (Student No. B1645960) at Bindura University of Science Education (BUSE) conducting research on Investigation on the effects of the epidemic COVID-19 on the profitability of the manufacturing companies a case study of the manufacturing firms within the city of Mutare. Your assistance is requested in the completion of the questionnaire attached. Data volunteers would be held in confidence. Do not write any comments or personal details on this documents.

All the data and information that I shall gain from your answers shall solely be used for academic purposes of the research and shall be kept confidentially.

May I kindly take this opportunity to thank you in advance for your unconditional assistance and may you please return this letter when you return the completed questionnaire.

Yours faithful

FLIGHT K MAGWERE

0718365044

Appendix B

SELF -ADMINISTERED QUESTIONNAIRE

Please tick in the appropriate box

SECTION A; Demographic information

1.	Age	0	0	0	
2.	Gender O Male	0	Female		
3.	What is your high	est educationa	al qualific	ation?	
	'O' Level	'A' Level	D	egree	Masters
4.	Which departmen	t do you work	in?		
5.	Work experience				
	Less than 1yr ()	1yr-5y	rs 🔿	above 5yrs	s ()
6.	For how long the	company has	been in op	peration?u	
	1yr-4yrs	5yrs-8yrs (above 9yrs	

SECTION B; The operational problems during COVID-19 pandemic.

 Your manufacturing company is seriously affected by COVID-19? (If yes, explain how?)

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree

8. Which department is greatly most affected by COVID-19? (please tick)

Production Department	
Sales Department	
Finance Department	
Other Department	

 What are specific manufacturing units affected by COVID-19 at your organization? (please tick)

Revenue has decreased	
Operations more difficult	
Cost of Production increased	
Client base has decreased	

10. Identify the COVID-19 effects on the production and operations of your manufacturing firm (Explain your answer)

Reduction of Orders	
Value chain disruption	
Disruption of Logistics	
Inability to deliver	
Insufficient protective equipment	

11. Briefly explain the main operational challenges faced by your manufacturing company during COVID-19?

Shortage of Cash flow	
Difficulties fulfilling contracts	
Shortage of Inputs	
Shortage of Workers	

12. Does COVID-19 has financial impact on your company?

	Yes	No
Positive		

Negative	

- 13. State the main financial challenges faced by your manufacturing firm during COVID-19 pandemic and rank them.
- 14. Quantify financial losses your organization made during COVID-19

Below US\$\$500.00	
US\$501.00-US\$2 000.00	
US\$2 001.00-US\$3 500.00	
US\$3 501.00-US\$5 000.00	
US\$5 001.00-US\$6 500.00	
US\$6 501.00-US\$8 000.00	
US\$8 001.00-US\$9 500.00	
US\$9 500 Plus	

- 15. Give the implications of lost revenue which your manufacturing firm encounter during COVID-19 pandemic?
- 16. Rate your supply chain challenges you experienced during COVID-19 pandemic? (justify the ratings)

	1	2	3
Suppliers closed			
Suppliers remain in operation			
Suppliers operational on a delivery basis with added cost			

17. Are there any medium-to-long impact of COVID-19 on your manufacturing company? (Yes/No) justify your answer.

- 18. Which measures have you implemented at your manufacturing firm to comply with lockdown order?
- 19. What measures do you put in place at your manufacturing company to mitigate spread of COVID-19 at your workplace?
- 20. How did you cope with cash flow shortages during COVID-19 crisis period at your organization?

	1	2	3	4
Reduction of operating costs				
Negotiation with Lenders				
Loans by commercial banks				
Equity financing				

21. How did you adjusting the working conditions to cope up with challenge of limited workforce?

Strongly Agree	Agree	Not sure	Disagree	Strongly disagree

22. How your manufacturing company deal with inputs shortage during COVID-19 pandemic?

THANK YOU FOR YOUR ASSISTANCE

Appendix C

61 Rydale Ridge Park

Harare

14 July 2021

Dear Interviewee

RE; Request that you attend an interview with me

My name is Flight Kudzai Magwere. I am a student (Student No. B1645960) at Bindura University of Science Education (BUSE), studying for Degree in Bachelor of Honours in Accounting. As part of the requirement for my programme, it is mandatory that I carry out a research dissertation, hence my sincere request that you kindly assist me by completing the attached questionnaire. I am here for the purpose of collecting data that will be used in the research study on investigating the effects of epidemic, COVID-19 on the profitability of the manufacturing companies, as partial/fulfillment of Degree course. The results obtained will be beneficial to all stakeholders.

You are requested to answer the questions as honestly as possible so that the reliable information you will give will be treated confidentially and be used only for the academic purpose of the research study.

Thanks a lot in advance, for your time to be used and the cooperation you will provide to me.

Yours faithfully

Flight Kudzai Magwere

0718365044

Appendix D

INTERVIEW SCHEDULE

- 1.) Mutare has witnessed the temporarily closure of manufacturing companies and a general decline of the manufacturing industry during the COVID-19 crisis period. In your opinion, what do you think are effects of COVID-19 on the profitability of manufacturing companies?
- 2.) Which department is greatly most affected by COVID-19?
- 3.) What are specific manufacturing units affected by COVID-19 at your organization? (specify)
- Identify the COVID-19 effects on the production and operations of your manufacturing firm (Explain your answer)
- 5.) Briefly explain the main operational challenges faced by your manufacturing company during COVID-19?
- 6.) Does COVID-19 has financial impact on your company?
- State the main financial challenges faced by your manufacturing firm during COVID-19 pandemic and rank them.
- 8.) Quantify financial losses your organization made during COVID-19
- 9.) Give the implications of lost revenue which your manufacturing firm encounter during COVID-19 pandemic?
- 10.) Rate your supply chain challenges you experienced during COVID-19 pandemic? (justify the ratings)
- 11.) What are implications of lost revenue on manufacturing during COVID-19 pandemic?
- 12.) What are medium-to-long impact of COVID-19 on manufacturing companies?
- 13.) What are measures employed by manufacturing firms to Comply with Lockdown order?