BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE

DEPARTMENT OF MATHEMATICS AND STATISTICS



THE IMPACT OF COVID-19 ON INNOVATION AND GROWTH OF SMALL FIRMS IN MIDLANDS PROVINCE FOR THE PERIOD (2019-2022)

BY EBAT NHIMBE B1852717

APPROVAL FORM

The undersigned certify that they have read this dissertation and approve its submission for making after confirming that it conforms to the department requirements

| Submitted by Ebat Nhimbe [b1852717] | |
|-------------------------------------|------|
| | |
| | |
| Supervised by | |
| | date |

DEDICATION

I dedicate this dissertation to my brother.

ACKNOWLEDGMENTS

Firstly, I would like to thank OK, Pote and Zebrass for giving me the opportunity to carry out my study. I would like to start from the top management for their attention and the employees who were very initiative in contributing their views during the discussion and the questionnaires they completed.

Furthermore, I need to thank my academic supervisor for the right direction he gave me towards my research. Your unwavering support is greatly appreciated.

I also would like to appreciate my family and friends who have been with me throughout this journey.

Above all, much appreciation goes to the Almighty who gave me the strength to go the extra mile during my research.

ABSTRACT

The Covid-19 is a globally renowned pandemic that negatively impacted the growth and innovation of firms, of which in Midlands province has not been spared either. Due to this pandemic many of the firms suffered disruptions in the supply chain of raw materials from international suppliers. This research seeks to find the impact of the pandemic on the growth and innovation of firms in Midlands province. The covid-19 shock has been spread across firms which led to a negative impact on sales which lead to the employment adjustment and a reduction in working hours. Some firms made low,zero or negative profits leading to uncertainty about the firms' future. These findings had a huge impact on the growth and innovation of firms in Midlands province especially on those who experienced a large drop in sales associated with a reduction with a number of employees. In addition other firms were facing greater financial constraint than this

Contents

| APPROVAL FORM | 2 |
|--------------------------------|----|
| DEDICATION | 3 |
| ACKNOWLEDGEMENTS | 4 |
| ABSTRACT | .5 |
| List of Acronym | |
| CHAPTER ONE | 11 |
| INTRODUCTION | 11 |
| 1.0 Introduction | 11 |
| 1.1Background of the study | 11 |
| 1.2 Research objectives | 11 |
| 1.3 Research questions | 12 |
| 1.4 Justification of the study | 12 |
| 1.5 Assumptions | 13 |
| 1.6 Limitations | 13 |
| 1.7 Delimitations | 13 |
| 1.8 Definition of key terms | 13 |
| 1.8.1Covid 19 | 13 |
| 1.8.2 Innovation | 14 |
| 1.8.3. Time Series | 14 |
| 1.9 Chapter Summary | 14 |
| LITERATURE REVIEW | 15 |
| 2.0 Introduction | 15 |
| 2.1 Theoretical framework | 15 |

| 2.2 Covid 19 | 16 |
|---|-----|
| 2.3 Firms growth theory | 16 |
| 2.3.1 Market share | 17 |
| 2.3.2 Firms perfomance | 18 |
| 2.3.3 Consumer behaviour | 18 |
| 2.4 Innovation | 18 |
| 2.5 The impact of Covid-19 on growth of firms | 19 |
| 2.5.1 Markets during covid 19 period | 20 |
| 2.5.2Stategies for firms to survive | .21 |
| 2.6 Entreprenuership and Covid-19 | .22 |
| 2.7 ChapterSummary | 2 |
| CHAPTER THREE | 23 |
| METHODOLOGY | 23 |
| 3.0 Introduction | 23 |
| 3.1 Research design | 23 |
| 3.2 Target population | 24 |
| 3.3 Sample size | 24 |
| 3.4 Data Collection procedure | 25 |
| 3.5In depth interpretation | 26 |
| 3.6 Data reliability and validity | 27 |
| 3.6.1 Internal validity of the research instruments | 27 |
| 3.7 Data introductiion system | 27 |
| 3.8 Chapter summary | 27 |
| CHAPTER FOUR | 28 |

| DATA ANALYSIS AND DISCUSSION | 28 |
|--|----|
| 4.0 Introduction | 28 |
| 4.1 Response rate | 28 |
| 4.1.1 Representation by gender | 29 |
| 4.1.2 Participation by age group | 30 |
| 4.1.3 Participation by educational qualifications | 30 |
| 4.2 Covid-19 and growth of firms | 31 |
| 4.2.1 Impact of Covid-19on innovations of firms | 32 |
| 4.3 Research findings | 34 |
| 4.3.1Relationship between covid-19 and growth of firms | 34 |
| 4.3.2 Impact of covis-19 on the innovation of firms | 35 |
| 4.3.3 The impact of covid -19 on new markes | 35 |
| 44 Chapter summary | 35 |
| CHAPTER 5 | 36 |
| CONCLUSIONS AND RECOMMENDATIONS | 36 |
| 5.0Introduction | 36 |
| 5.1 Summary of findings | 36 |
| 5.2 Conclusion | 36 |
| 5.2.1Covid-19 and Growth of firms | 36 |
| 5.2.2 Impact of covid-19on the innovation of firms | 36 |
| 5.2.3 Impact of covid-19 on new markets | 36 |
| 5.3 Recommendations | 37 |
| 5.4 Areas for further research | 37 |
| REFERENCES | |

List of Tables

Table 3.1 Sample of customers

Table 4.2 Respondents

List of Figures

- Fig 4.1.1 Representation by gender
- Fig 4.1.2 Participation by age group
- Fig 4.1.3 Participation by educational by qualifications
- Fig 4.3 Comparison of sales
- Fig 4.4 Innovational level
- Fig 4.5 the covid-19 impact on new markets.

CHAPTER 1

INTRODUCTION

1.0 Background of the study

Historically, an enterprise or a firm started their business with basic features, due to competition this phenomenon became a disadvantage among them from they try to be different from each other by offering special offers that others do not offer in-order to attract customers. This idea of introducing various special offers is called as being innovative according to Ali Fazal (2016)

COVID-19 become first pronounced in Wuhan, China, and finally spread worldwide. The corona virus changed into officially named extreme acute respiratory syndrome corona virus 2 (SARS-CoV-2) by the worldwide Committee on Taxonomy of Viruses based totally on phylogeny analysis. SARS-CoV-2 is assumed to be a spillover of an animal corona virus and later tailored the potential of human-to-human transmission. Because the virus is pretty contagious, it swiftly spreads and constantly evolves within the human populace. Currently, human beings all around the global have been laid low with corona virus disorder, which is the 5th pandemic after the 1918 flu pandemic. This pandemic has caused most of the firms to struggle because of total lockdown over the whole world.

1.1 statement of the problem

The covid-19 pandemic has shed light on both the revenue and growth of the firms in Zimbabwe. Most of the firms in Zimbabwe were facing material shortages during lockdown period this was due to failed deliveries and also running out of suppliers and operational pressures. Firms' expansion was also affected due to the impossibility of site visiting and face to face meetings with customers. Covid-19 has also caused sharp increase in operational costs due to delayed in deliveries, cancellation of orders and price stagnation. However this project will come up with scenarios and alternative

appropriate measures plans for the future and how to protect the firms against such disruptions.

1.2 objectives of the study

The specific objectives of this study are.

- ♦ To ascertain the effect of covid-19 on the growth of firms in the midlands province
- ♦ To analyse the impact of covid-19 on the innovation of firms
- ♦ To ascertain the effect of covid-19 on the new markets during the covid-19 pandemic period.

1.3 Research questions

The research will answer the following questions

- 1. To what extend does covid-19 affected the growth of firms?
- 2. How does covid-19 impact on the innovation of firms?
- 3. To what extend does the pandemic affected new markets?

1.4 Justification of the study

The pandemic of covid-19 have affected the operation of most of the firms in Zimbabwe in different sectors due to the total lockdown nationwide. This became difficult for most of the firms to quickly engage to a new normal way of operation over a short period of time.

This research was designed to assist new firms on a critical understanding of how other firms in Zimbabwe where responding and adopting to a new normal during covid-19 pandemic. The study aims to give information to other new firms on measures they could implement for their survival during the pandemic period. Also aiming on giving strategies that can be used by firms in Zimbabwe to turn the pandemic crises into opportunity.

1.5 Assumption

- All of the gathered data will be unbiased and accurate representation of the firm's plans.
- All firms will be willing to participate and give the positive reaction to the research question.

1.6 Limitations

- ❖ The study was only focusing on a certain number of firms in midlands province which is one the provinces affected by covid-19, more surveys should be implemented in other provinces to explore how covid-19 impacted firms in other provinces.
- ❖ A cross-sector analysis is also needed to get specific suggestions for different industries in different provinces around Zimbabwe.

1.7 Delimitation

This study was confided to Midlands province

1.8 Definition of key terms

1.8.1 Corona virus disease 2019 (COVID-19)

Is defined as the illness caused a by a novel corona virus now called severe acute respiratory syndrome corona virus 2(SARS-COV-2; formally called 2019-nCOV), which was first identified amid an outbreak of respiratory illness cases in China.

1.8.2 Innovation

Innovation refers to the process of making changes, large and small radical and incremental to products processes and service that results in the introduction of something new for the organization that adds value to customers and contributes to the knowledge store of the organization Sullivan (2008).

1.8.3 Time Series

Time series analysis is a statistical methodology appropriate for an important class of longitudinal research designs. Such designs typically involve single subject of research unit that are measured repeatedly at regular intervals over a large number of observation Velicer, W.F.,& Fava, J. L (2003). This helps organizations understand the underlying causes of trends or systemic patterns over time.

1.9Summary

This chapter has generally reviewed the background of the study, justification, objectives of the study and research questions to be discussed. This chapter is very important because it draws a road-map of the study and it defines the course of the entire study because there are firms who failed to maintain the overall stability. Other firms also believed that the will be a certain loss during the pandemic period and a very high percentage of firms expected a decrease in trends in the GDP growth. The next chapter will be proceeding to literature view.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter focused on the number of key findings which are much related to the subject. The main aim of this chapter is to obtain the current literature on covid-19 with particular emphasis on how it affected the innovation and growth of firms during the pandemic period. It is also essential to investigate how this business industry had recovered and remained sustainable in a new world order after covid-19 give details on the measures of company performance which will be used in the study by the researcher

2.1 Theoretical framework

Covid-19 defined as a highly contagious respiratory disease caused by the SARS-COV-2 virus which spread from one person to another through droplets when an infected person coughs sneeze or talks. It may also spread through touching a surface with the virus on it. However the pandemic has caused a lot of things over the whole world which include total lockdown.

2.2 Covid-19

According to Chang et al (2020) covid-19 has changed the world forever and has dramatically affected the international travel, business, tourism and hospitality industries, which are highly sensitive to significant shocks like covid-19. Vanessa Ratten (2020) under the current conditions of deep uncertainty, there is need for entrepreneurs to recognize risk and opportunities which will enable them to make sense of the crisis by grasping the social and market needs of the customers. Firms also need to make decisions quickly and fast-thinking with the crisis which means short and long-term consequences of inaction can be assessed later. A rational approach to a crisis involve talking a logical and rational approach (Liu, Shankar, and

Yun 2017). Rather than using a wait and see approach firms should practice to manage working with given statistics and events as they unfold. Pandemic can be considered as normal events because of the environmental surprises which are unexpected. During the covid-19 pandemic firms respond in different ways which is restructuring of business practices to a reduction in output. The way the firm respond to the changing markets will determine the ability of a firm to sustain and survive in the market place. Crisis management focuses both on preventing and responding to major changes Doern (2016)

2.3 firm's growth theory

Growth is considered as a natural process of a firm and over the few pas years it has become the necessity in today's world of competition. Ahmet Ilhan and Yakup Durmaz, (2015) stated that national and international business which are currently carrying on their activities need to perform internal and external environmental analysis and determine their growth strategies according to the analyzed data. Growth should be always be continuous in every firm for them to survive in this competitive industry. Also the must be growth in both qualitative and quantitative developments.

Firstly, firm growth is much related to firm survival this means that growth and survival are positively correlated to each other. Firms that experience continuous growth will have a higher probability of surviving in the market Geroski (1995). Firms' growth is a way to introduce innovation and leitmotiv of technological change Pagano and Schivardi, (2003). For example, if a firm want to grow and survive in a new competitive industry, it needs to incorporate new technologies to be more efficient and this can only be meet by introducing innovation.

A study of firms' growth can shed light on the importance of the selection process after the firm has entered the market Audretsch and Mata, (1995). Firm growth can be measured by a number of factors and the growth of firms creates employment across the whole sector. When discussing about firms growth we refer to the number of the worker flows or the number of jobs created or destroyed over a certain period of time

by not considering the number of people who changed the jobs. The casual relationship depends on the firms expectations. Firms may for see a crisis but the may also cause it if their expectations are incorrect about the economic evolution. For example Penrose (1959) pointed out the role of expectations in productive opportunity of the firm. P.D Gupta and Samapti Guha (2014) growth is a vital indicator of a flourishing enterprise also growth can be said to be a function of the decision an entrepreneur makes. Mateev and Anastasov (2010) have found that a firm's growth is related to size as well as other specific characteristics like financial structure and productivity. They further added that the total assets which one of the measure of firm size has the direct impact on the sales revenue, but the number of employees, investment in research and development and other tangible assets have not much influence on the firm growth prospects. Lorunka et al (2011) have found that, the gender of the founder, and the amount of capital required at the time of starting business, and the growth strategies of the firm are very important factors in predicting growth in small firms. They also further highlighted that apart from human capital resources, the growth of the firm can be predicted on the basis of commitment of the person starting a new enterprise.

2.3.1 Market Share

Market share is one of the factors which measures growth of a firm. In the business world some of the managers a much interested in market share because of the profits gained or returns from investment. Lee G. Cooper (2014) stated that for products and brands managers in particular, the sense of urgency associated with the gains and losses of market shares for the products or brand in their charge may be linked to what winning or losing of a war front means to generals or general staff. He also added that market shares command the attention of business managers as key indices of measuring the performance of a product or brand in the market place. For the firms to continue operating perfectly there is need for checking day-by-day changes in market

shares because movement to them is almost synonymous to market information. Ross (2001) expressed that it is the addition in the level of the complete market for an item or administration class that has been gotten by a specific item or administration offering organization with different ideas or items and administration inside that classification. It is also stated by Lee G. Cooper (2014) the extent that market shares are used as market performance indices, it is clearly desirable for the individuals concerned to have thorough knowledge of the processes which generate market-share figures to be able to analyse the impact of their own action on the market shares, as well as their profit implications.

2.3.2 Firm's performance

Increase in revenue and profits are major objectives for each every firm and the progress of the company towards this goals are a source of evaluating firms' performance but the business owner has other ways of measuring performance as well based on evaluating additional key statistics Hill (2013). He goes on to list customer satisfaction, employee satisfaction, key performance indicators and variance analysis as additional key statistics.

2.3.3 Consumer behavior during covid-19

Around the globe, societies where in lockdown and citizens are asked to respect social distance and stay at home. As we are social beings isolation may be harmful to us Caciopo and Hawkley (2009)

2.4 Innovation

According to C. Lin (2009) the word innovation is originated from Latin word, Innovare which means to make something new. Innovation can also said as 'an idea, practice or object that is perceived as new by an individual or other unit of adoption' Daugherty et al (2011) and Grawe (2009). Innovation consist of the generation of a new idea and its implementation into a new product, process or service, leading to the

dynamic growth of the economy and the increase of employment as well as to a creation of pure profit for the innovative business enterprise T. kogabayev and A. Maziliauskas (2018). They also added that innovation is never a one-time phenomenon, but a long and cumulative process of a great number of organizational decision-making process, ranging from the phase of generation of a new idea to its implementation phase. Bringing of new ideas maybe referred as perception of a new customer need or a new way to produce. It is generated in the cumulative process of information gathering coupled with an ever-challenging entrepreneurial vision T. Kogabayew and A. Maziliauskas (2018).

Boyer (2007) also added that innovation is one of the major relevance for companies as it can be the source of additional revenues from new products or service and can help to save costs or improve the quality of the existing processes. For the firm to be innovative the management or the individual responsible need to be more creative and having positive attitude and awareness towards the need to be innovative. Innovation can be divided into 2 different categories which are technological innovation and administrative innovative. Technological innovative associates with the adoption on an idea that direct influence the basic output process, while administrative innovative involves changes in relation with resource allocation policies and other related elements associated with the organization's social structure S. Ali Fazal (2016).

2.5 The impact of covid-19 on growth

The current covid-19 is a rapidly evolving global challenge and like any other pandemic, it weakens health system costs lives and also poses great risk to the global economy and security Zou et al (2020) although half of films maintained their operations and overalls stability many experienced a halt in operation or faced closure for various reasons such as short ages of materials and stock firms are suffering from at least one of the following pressures; employees' salary and social insurance rent loss of orders ;payment of accounts payable; and loan repayment for films with fewer than 50 employees rent payment seen to be the key pact most films barely maintained

production facing a shortage of materials or lack of supply most of the films had orders from domestic customers canceled and other overseas customers who canceled, orders or failed to send supplies on time. Many firms in the province faced many challenges because their production and operational activities have been limited because of the pandemic which becomes difficult for them to expand. The research revealed that most of the firms shad their orders being canceled from domestic customers and their market expansion also affected due to lack of visiting of new sites for personal meetings with customers. According to v. Ratten (2020) means that they do not necessarily gain much from change such as that occurring from the corona virus health pandemic but may have to significantly change business direction. In addition, industries are facing supply chain challenges due to the number of workers confined to their homes kraus et al (2020), this has caused supply chain disruption caused by the curtailing of certain industries. Firms had to find new ways to introduce for them to expand. Many firms have faced higher labour costs which have forced them to consider reducing the number of employees, cutting wages and postponing recruitment until the effects of the pandemic are over Zou et al (2020).

2.5.1 Consumer behavior during covid-19

Around the whole world, everyone and every society was in lockdown and people were asked to maintain social distance and stay at home. According to Charu Bisaria (2021) the spread of covid-19 triggered the need for imposing lockdown worldwide governments of numerous nations imposing restriction on human movements to curb the spread of the virus. Chuku et al (2019) said that buying behavior of consumers is impacted by several emotional, psychological and physical factors which include availability of alternatives products, price of other products and income of consumers. Consumers were forced to shift to alternative brands due to unavailability of certain goods for certain brands during the pandemic time, majorly because of hoarding of commodities by Laato et al (2020). Gulf News (2020) reported that sudden announcements of restriction due to covid-19 led to panic buying which then led to shortages of commodities in markets which are essential good which ran out of stock.

In addition the buying power of consumers have also been affected by pay cuts due to zero production in several industries along the nation because of lockdown and stay at home.

2.5.2 Markets during covid-19

The covid-19 outbreak is likely to cause bankruptcy for many well-known brands in many industries as consumers stay at home and economies are shut Tucker (2020). Furthermore, conferences, sporting events and other large gatherings as well as cultural establishments such as galleries and museums have been abruptly called off journal of business (2020), they also added that personal services like hairdressers, gyms and taxes, have also come to a standstill due to lockdown. In that situation some firms struggled in trying to handle the situation and surviving at the same time. People have also to change their consumption patterns, increasing the demand of take out as they were spending much time on their homes.

2.5.3 Strategies for firms to survive

As the world welcomes the new normal resulting from the covid-19 firms can utilises the available technologies to digitize business activities and undertake virtual operation. The reconfiguration of existing skills and adoption of digital skills not only affects employment trends, but also the way we work and experience M. Belitski, A.S. Kritikos, C.Guenther, R. Thurik, (2021). They also added that the role of technology has significantly increased under covid-19 for instance, digital technologies affected the way firms do head-hunting during covid-19 as well as how products and service are being manufactured and delivered. Firms engaged in a new method of advertising, marketing and selling of products using digital platforms. Due to a lot challenges and struggling being faced by firms and devoted more efforts on research and development and innovation. More firms felt that government needs reduce exempt, or postpone social insurance, value added tax, income tax and other taxes Zou et al (2020). They also added that small firms need more cash subsidies while large firms tend to get polices of extending loan repayment terms and debt

forgiveness. Due to the pandemic some of the firms mentioned that the pandemic has eliminated competitors to a certain level, by triggering the launch of new business and accelerating changes in marketing approaches. The epidemic has strengthened the determination of some firms to turn crises into opportunities and invest in new industries Zou et al (2020). Most of the consumers changed their consumption behaviors which led the firms to engage in new business opportunities and to design new marketing strategies.

2.6 Entrepreneurship and Covid-19

Entrepreneurship orientation refers to firms' level behavioral characteristic of engaging in product-market innovation, promoting innovative behavior within the firm, undertaking somewhat risky ventures and being the first to come up with proactive innovations Wang and Altinay (2012,4). According to V. Ratten (2020) the main elements required for a firm to handle covid-19 crises include innovation, risk-taking, and being practice in the marketplace. Firms must take the advantage of them to use social networks and recognize opportunities to engage in new markets. Because of being innovative and new marketing strategies firms cover the foresee gap the market with new ideas.

2.7 Summary

The chapter have generally reviewed literature on the impact of covid-19 to firms and the impact of covid-19, how it affected the firms in midlands province, also its effect on innovation. The next chapter will be explain research methodology that was used in the collection of data.

CHAPTER 3 RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on the methodology used in this research that is research design, target population sampling techniques, data collection techniques, research instruments to be used and information gathering methodology and how data will be presented. It brings out how the researcher address the issues identified in chapter 1an together with the means of collecting the data for analysis.

3.1 Research Design

Research design can be considered as the structure of research it is the "Glue" that holds all of the elements in a research project together, in short it is a plan of the proposed research work. According to Jahoda, Deutch and Cook (2004) a research design is the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy and procedure. Kotler (2012) states that there are three types of research designs namely descriptive, casual and exploratory. However, the researcher will use casual research design. This research design will assist the researcher in determining the relationship between covid-19 and innovative growth.

This research will aim to address the following objectives

- ✓ To ascertain the effect of covid-19 on the growth of firms in the midlands province
- ✓ To analyse the impact of covid-19 on the innovation of firms
- ✓ To ascertain the effect of covid-19 on the new markets during the covid-19 pandemic period.

Causal research design is the most appropriate research design to access the impact of covid-19 on growth and innovation of firms.

3.2 Target Population

The most targeted population in this research consists of senior management staff, employees and customers who buy products from small and large firms. The main reason for choosing the top management is that they are directly involved in the decision making and strategic planning process within the organization which is the main sources of secondary data for the firms. The targeted population consists of employees that is employees from production and customer's service department and others from top management staff from both small and large firms in midlands province.

3.3 Sample size

The researcher used stratified random sampling of management and employees of firms at one of the major cities in midlands province which is Zvishavane namely Ok, Pote and Zebrass. The sample involved randomly coming up with a research subject who have a lot of information, represented the population and was equally accessible.

Table 3.1 Sample of customers

| Study Sector | Representation |
|--------------------|----------------|
| OK management | 2 |
| Pote management | 4 |
| Zebrass management | 4 |
| Total management | 10 |
| Ok employees | 10 |

| Pote employees | 30 |
|-------------------|----|
| Zebrass employees | 20 |
| Total employees | 60 |
| Total Sample Size | 70 |
| | |

3.4 Data Collection Procedure

Secondary data

Secondary data involves the use of data which is already gathered by other researchers for a different purpose. Punch (2005) defined it as the reanalysis of previously collected and analyzed data. In this research, secondary data was collected from literature covering firm's growth and innovational projects. This include research from other firms in other countries and other regions in the same line of operation, journal articles, and the comparison data was collected from forms records as well as management reports for the selected firms in midlands.

Primary Data

Primary data is the one which is collected for the first time by a researcher O. Victor, (2017). He further added that, primary data is collected the aim of solving the problem at hand and the term primary data refers to the data originated by the researcher for the first time. One advantage of primary data is the data will be always specific to the researcher's needs and the disadvantage is that data collection of primary data may be time consuming to collect all the relevant data for the researcher's needs. The basis of primary data was the researchers target population, were the researcher gathered the data themselves using interviews and questioners. In this case the researcher used questionnaires as the research instrument.

Questionnaire

A questionnaire is a set of written of printed questions with a choice of answers, which is needed for a purpose of a survey or a statistical study. The researcher administered the questionnaire by hand and it was designed to collect demographic information from management and customers, covid-19 impact and its impact on the growth and innovation of the selected firm's variables. The respondents had at least a week to respond to the questionnaires and after that the researcher returned to collect the questionnaire.

3.5 In-depth interviews

The researcher used few structured interviews so that the respondents can feel free to provide much information and to be able to obtain values and attitudes of the respondents. The researcher also conducted the interviews with the management and the main idea was to obtain in depth understanding of the impact of covid-19 on growth and innovation and how they take the pandemic disruption as the opportunity for new markets. The interviews helps the researcher to fully understand also to fully explore on the research objectives. The researcher also engage in in-depth interviews because they are flexible and they give room to the respondents to be open and honest. The in-depth interviews with management allows the researcher to dig deeper so as fully understand how the firms survived during the pandemic period and all the responses where jotted down.

3.6 Data Validation and Reliability

Reliability is referred to as how consistently a method used to measure something when same results can be obtained consistently using the same methods under same circumstances the measurement will be said to be reliable whereas validity refers to how accurate a method measures what is supposed to measure. If a research is said to have high validity this means that it produces results that correspond to real properties and characteristics. Also high validity shows that the measurement is valid.

Before the use of surveys to gather information it was pilot tried so as to clean it with the goal that respondents had no problems in addressing the inquiries and recording the information. The respondents were given surveys in the stipulated time to guarantee they had the equivalent ecological factors at play and maintain a strategic distance from various settings.

3.6.1 Internal Validity of Research Instruments

The researcher applied different strategies to guarantee the inward legitimacy techniques that the specialist utilized are expressed and depicted underneath

 The researcher used clear and straight forward inquires in the poll which empowered the respondents to easily comprehend what was required by the researcher's perspective which was in accordance in the exploration of the goals.

3.7 Data Investigation and Introduction

The researcher used tables, pie charts and diagrams to display the research and examination discoveries.

3.7.1 Data Introduction System

The data gathered was investigated utilizing SPSS and the outcomes obtained was illustrated using tables, diagrams, pie charts, plots and pie graphs. This was done for the purpose of easy working with data.

3.8 Summary

The above chapter outlined the steps, tools and procedures, taken by the researcher in gathering data which is appropriate to the study. This chapter also reviews the research design, sampling techniques, targeted population, validity and reliability of findings.

Chapter 4

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter give much details on the data collected from the study. It also analyze and discuss the data gathered respondents by the use of questionnaires. Since the data is largely quantitative it has been presented through the use of pie charts, tables and graphs and the qualitative aspect of the collected data has been presented through narrations.

4.1 Response Rate

The researcher administered about 70 questionnaires to respondents structured as 10 to management and 60 to employees and the favorable response rate which was above the targeted number was obtained from both management and employees as shown in the diagram below.

Table 4.2 Respondents

| Firm | Administered | Returned | Response |
|---------------------------|--------------|----------|----------|
| Ok | 2 | 2 | 100% |
| Pote | 4 | 2 | 50% |
| Zebrass | 4 | 4 | 100% |
| Total Management Response | 10 | 8 | 80% |

| Ok | 10 | 8 | 80% |
|--------------------------|----|----|-----|
| Pote | 30 | 25 | 83% |
| Zebrass | 20 | 18 | 90% |
| Total Employees Response | 60 | 51 | 85% |
| Total Response | 70 | 59 | 84% |

Table 4.1 Response Rate: Source Primary Data

Seo & Park (2017) suggest that a response rate above 50% of the sample used provides data which is sufficient enough to conduct an empirical study. However, of the remaining 16%, the majority 12 were not returned correctly because employees was too busy to consider stopping for the long time needed to complete the questionnaire and the remainder 4 were spoiled.

Fig 4.1.1 Representation by gender

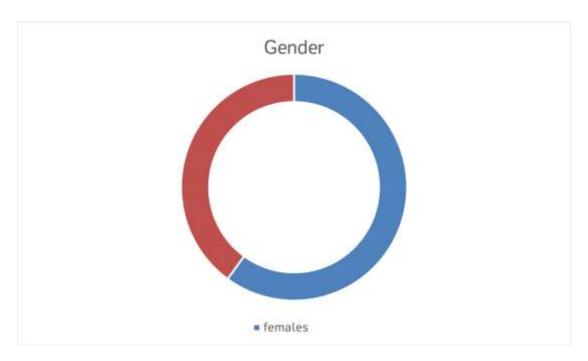


Fig 4.1 Gender Representation: Source Primary Data

The diagram above shows that 60% of the employees in most of the firms are female and the other 40% are males. This review that we have a greater number of female employees in midlands province than male workers this is because the more females than males in the province. Since all of the firms relies on customers they are very sure that females takes much good care of customers than males.

4.1.2 Participation by age group

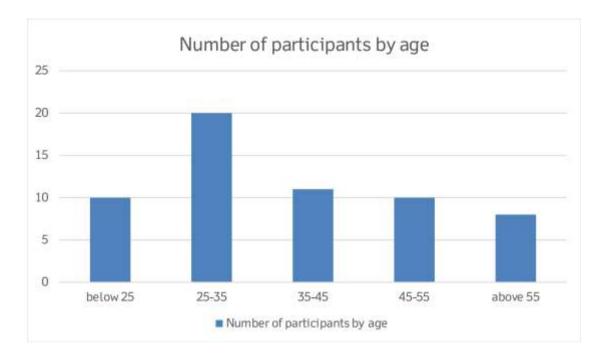


Fig 4.2 Participation by age: Source Primary Data

The diagram above show the category in which each age group fall under. In this case, the graph has been dominated by the age group 25-30 years which shows that most of the employees are still very young and this is the most energetic group of all the categories. This goes by age because we have few employees which ranges from the age group above 55 because most of them will be retired.

4.1.3 Participation by educational qualification

About 50 percent of the respondents who took part in this research claimed that they have a degree qualification, 20 of the respondents had diplomas and the other 20 had secondary qualification. Only 10 of the people who participated in the study

possessed a post graduate qualification. Participation by qualification is show in the diagram below.

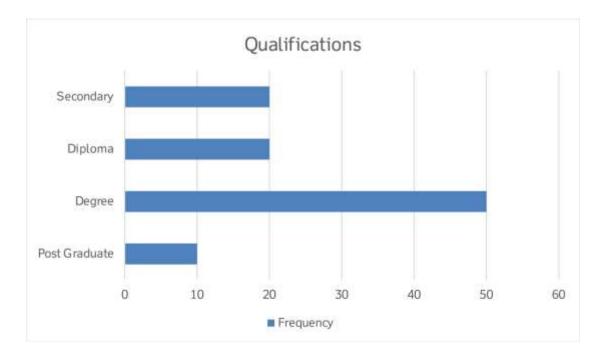


Figure 4.3 Educational qualifications: Source Primary Data

4.2 Covid-19 and Growth of Firms

The research was done to ascertain the relationship or the impact of covid-19 on growth of firms. The information used was collected from the records and management of three different firms in midlands. The study collected sales figures for three firms which are Zebrass, Pote, and Ok for the period of 2017-2020 and the results obtained was based on these three operating years. The data collected shows 2 years before the pandemic and 2 years during the pandemic period. The following figure represent the comparison of sales volumes for the past years due to the impact of covid-19.

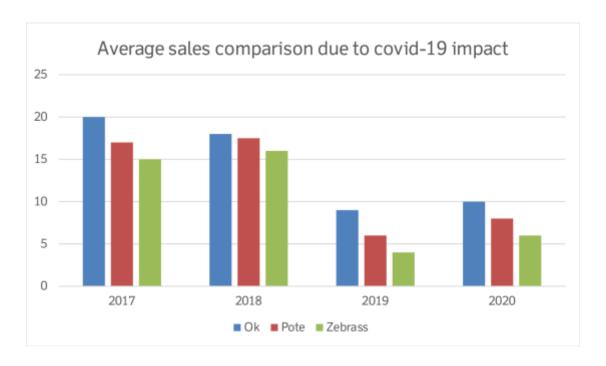


Figure 4.3 Comparison of sales due to impact of covid-19

The researcher noted that before the covid-19 pandemic period firms have been operating at their normal level and they have been making their normal profits and after the impact of covid-19 which is 2019 and 2020 onwards all firms have encounter a decrease in sales due to lockdown which means expansion and growth of firms was affected to a greater extend because they were forced to reduce the number of employees as well as working hours. Also they had suffered supply disruption in the global suppliers due to lockdown.

4.2.1 Impact of covid-19 on innovation of firms.

The study sought to ascertain the impact of covid-19 on the innovation of firms which is the effect on new ideas, process, value addition and product. The researcher collected data aiming to see the how new product development new processing ideas and value addition on product.

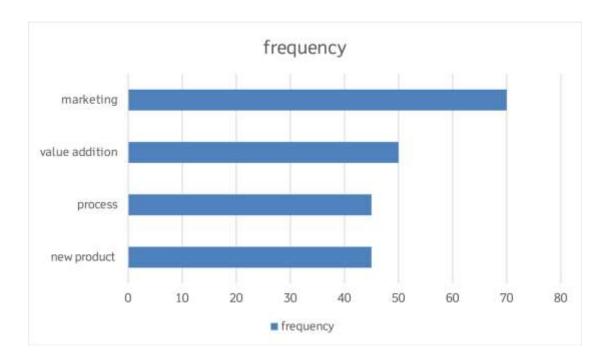


Fig 4.4 Innovation level

The results show that due to the impact of covid-19 market of all the firms have increased due to lockdown firms forced to increase in marketing their products for the purpose of new products in the market and value added products. Processing and new products had to increase due to change in the consumption rate of customers.

4.2.3 The impact of covid-19 on new markets.

Due to the covid-19 disruption during the pandemic period the study was attempting to ascertain whether there is an impact of the covid-19 on new markets. The study analyzed new market opportunities on three different firms in midlands province as shown in the diagram below.



Figure 4.5 the covid-19 impact on new markets.

The results show that before the covid-19 pandemic firms was expanding into new markets that is year 2017 and year 2018. However, during the covid-19 pandemic period most of the new markets fail due to material shortages, and some they run out of supplies because of their orders being cancelled. In addition, new markets fail or decrease because of the impossibility of site visiting and lack of face-to-face meeting with customers.

4.3 Research Findings

4.3.1 Relationship between covid-19 and growth of firms

The researcher find out that as the covid-19 pandemic was affecting the whole world, firms where struggling on their operation. This shows that the is a negative relationship as the covid-19 cases were increasing leading to lockdowns and closing of international markets firms where were barely to close due to lack of suppliers which has a much impact on the production side of the firms' growth.

4.3.2 Impact of covid-19 on the innovation of firms

The results of the study showed that due to the impact of covid-19 firms was more innovative that is the positive attitude towards changes. More innovative firms was in a better position of surviving during the pandemic period. The pandemic period forced the firms to be more innovative.

4.3.3 Impact of copyid-19 on new markets

The study showed that covid-19 was affecting the idea of new markets to a greater extend because most of them fail. Covid-19 lead the global markets in lockdown which affect the supply of raw materials from one point to another this affect production and new markets meetings with customers.

4.4 Summary

This chapter was more concerned about the look of the responses of the data collected including an analysis of the sample demographics, it also give presentation of findings in relation to the research objectives. The next chapter will look at the summary of the research and the conclusion giving recommendations.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMANDATION

5.1 Summary

The study was conducted to research the impact of covid-19 on the innovation and growth of firms in midlands province and the main aim was to find out how the firms survived during the pandemic period because covid-19 caused a dramatic change in the society and it altered current business practice. The researcher muchly analyzed on the growth, innovation and new markets opportunities of the firms.

According to the research data was gathered from three different firms in midlands which is Ok, Pote and Zebrass and it shows that all the three firms was struggling in all departments of the firm during the pandemic period. This means that new approaches where quickly needed in order for them to survive. Also since the covid-19 crisis is still in existence there is need for innovation and the use of new technologies in order to help the business to undertake virtual operations and engaging in digital marketing during the times of community lockdown since the future seem to be uncertain due to the covid-19 pandemic.

5.2 Conclusion

5.2.1 Covid-19 and growth of firms

The results of the study showed that before the pandemic period the business market was stable globally firms was at their normal production and operation level. The researcher collected data on sales for the previous years and it showed a decrease in sales for all the three firms because the pandemic affected the production side and operation side as well as market due to lockdown.

5.2.2 Impact of covid-19 on the innovation of firms

Due to the impact of covid-19 the study showed that innovation increased due to the decrease in production because of shortage of raw materials and delay in deliveries.

Also there was an increase new products and marketing strategies in order to meet the change in consumer consumption rate and to promote new products in the market.

5.2.3 Impact of covid-19 on new markets

On the concept of new market the research find out that from all firms under this study new markets failed due to shortage of raw materials and the lack of frequent site visiting due to community lockdown. Also lack of face-to-face meetings with customers and failure in research and development because of changing in customers' lifestyle.

5.3 Recommendations

The research findings have proven that covid-19 pandemic have caused a huge impact on growth and innovation of firms in midlands province during the pandemic period. Therefore, the researcher recommends the following

5.3.1 Recommendation to the firms

- 1. The current pandemic of the covid-19 offers an opportunity for the new upcoming firms to lead the next industrial revolution in new ways of doing business by utilizing cutting-edge technologies.
- 2. There is need for more research and development in order for the firms to be more innovative and creative to take this pandemic as an opportunity for new business line.
- 3. They should release suppressed and frozen consumption by carrying out different activities such as shopping festivals and food festivals to stimulate consumption and facilitate the environment for promoting online and offline integrated consumption.

5.4 Areas for further study

The research showed that Covid-19 pandemic caused a huge downfall in all different firms in the midlands province. Further research can be done to obtain more

knowledge on how firms can manage surviving and viability of the business during the pandemic period like covid-19.

The study can also be extended to cover other aspects of the firms for instance how to manage finances and business expansion during the pandemic period.

REFERENCES

Adner, R., and Kapoor, R. (2010). Value creation innovation ecosystem. *Strategic Management Journal*, 30(3), 306-333.

Altig, D., J. Barrero, N. Bloom, S. Davis, B. Meyer, E. Mihaylov, and N. Parker (2020, May). COVID-19 Caused 3 New Hires for Every 10 Layoffs. Atlanta Fed Blog, May 1, 2020.

Cacioppo, J. T., & Hawkley, L. C. (2009). Perceived social isolation and cognition. Trends in Cognitive Sciences, 13(10), 447–454.

Campbell, A. M. (2020). An increasing risk of family violence during the Covid-19 pandemic:Strengthening community collaborations to save lives. Forensic Science International: Reports, 100089.

Funk, S., Gilad, E., Watkins, C., & Jansen, V. A. (2009). The spread of awareness and its impact on epidemic outbreaks. Proceedings of the National Academy of Sciences, 106(16), 6872–6877.

Ip, G. (2020). Shoe to masks: Corporate innovation flourish in Coronavirus fight. *Wall Street Journal*, April 16.

Jaworski, B., Kohli, A. K., & Sahay, A. (2000). Market-driven versus driving markets. Journal of the Academy of Marketing Science, 28(1), 45–54.

Jorda, O., Singh, S. R., & Taylor, A. M. (2020). Longer-run economic consequences of pandemics(Report no. w26934). National Bureau of Economic Research.

Karabell, Z. (2020). Will the Coronavirus bring the end of globalization? Don't count on it. *The Wall Street Journal*. March 20.

Kim, W. C. and Mauborgne, R. (2019). Non-disruptive creation: Rethinking innovation and growth. *MIT Sloan Management Review* Opinion & Analysis, February 21.

Kozetinac, G., Vukovic, V., & Kostic, D. (2010). Corporate finance and monetary policy: The role of small and medium-sized enterprises.

Krishnan, M., Mischke, J., and Remes, J. (2018). Is the Solow Paradox back? *McKinsey Quarterly*.June 4.s

Kushnir, K., Mirmulstein, M. L., & Ramalho, R. (2010). Micro, small, and medium enterprisses around the world: how many are there, and what affects the count. *Washington: World Bank/IFC MSME Country Indicators Analysis Note*, 1-9.

Lee, S. M. (2015). The age of quality innovation. *International Journal of Quality Innovation*, 1(1), 1-9.

Nowland, R., Necka, E. A., & Cacioppo, J. T. (2018). Loneliness and social internet use: Pathways to reconnection in a digital world? Perspectives on Psychological Science, 13(1), 70–87.

Potter, C. W. (2001). A history of influenza. Journal of Applied Microbiology, 91(4),

Vargo, S. L., ... Lusch, R. F. (2011). It's all B2B... and beyond: Toward a systems perspective of the market. Industrial Marketing Management, 40(2), 181–187.