COVID 19 CONTAINMENT MEASURES AND FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI CBD, KENYA

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ABSTRACT

SMEs are key economic drivers in both developing and developed economies. However, despite this significance, these businesses face a myriad of challenges that affect their financial performance. Among the most recent challenges is COVID 19. As a means of curbing the virus from spreading, the government put in place various containment measures, that is lock down, social distancing and curfews. This study hypothesizes that that these measures impacted on the financial of these businesses. In this study therefore, the purpose was to determine how COVID 19 containment measures have affected the small and medium enterprises in Nairobi CBD. More specifically, the study sought; to determine the effect of lock, curfew and social distancing on the SMEs in Nairobi. The study targeted 5000 SMEs that are licensed by Nairobi Metropolitan Services to operate within Nairobi CBD. The sample size comprised of 370 SMEs. The participants were selected using stratified sampling. The businesses to partake in the study were picked through simple random sampling. Data collection was done using a questionnaire. SPSS was used to analyse data. Descriptive methods were used to describe the respondents and the various perspectives of the respondents regarding COVID 19 containment measures and the associated effects on financial performance. This was done using percentages and frequencies. Inferential analysis was used to determine the association between the predictor variables and the outcome variables. Based on the findings, the study found that lock down highly disrupted the SMEs sourcing and distribution functions. It was difficult for SMEs to sources raw material and supplies from other counties and also, it was difficult for the businesses to distribution their goods to other counties. The study also found out that the SMEs were affected by curfew. Further, the study identified that social distancing affected the businesses by limiting the number of customers that could be served at a time.

INTRODUCTION

Background of the Study

Occurrence of pandemics is not a new phenomenon in human history. According to Candido et al. (2020), there have been occurrences of pandemics in human history at various stages. Although the occurrence of catastrophes has been there for centuries, the frequency with which they occur has been on the rise from the year 2000 and thereafter. This is mostly as a result of a surge in the emergence of viral diseases among animals (Jamison, 2018). As a result of this increase in pandemics frequency, researchers such as Madhav et al. (2017) and

Fan et al. (2018) reported that the occurrence of a massive global epidemic was inevitable, most notable being the Corona Virus (COVID 19).

While pandemics are mostly associated with severe health impacts, they also have severe negative effects on the economic wellbeing of a country particularly in the short run (Manderson, 2020). One of the notable economic impacts of pandemics is avoidance reaction due to social distancing measures. An example of this is the tendency of the people reduce buying of particular goods and services. Another economic effect of pandemics is an increase in the direct costs. This occurs as a result of an increase in medical and hospitalization costs. Other effects include an increase in indirect costs such as loss of labor, production, as well as offsetting and cascading impacts such as a disruption of services, travel and others (Brodeur, Islam, Gray, & Bhuiyan, 2020).

While COVID 19 originated in China, it has spread rapidly and has caused huge massive effects. By mid-June 2020, more than 8 million cases of the virus had been reported across the globe with over 436,000 deaths reported. Besides COVID 19 being a health concern, it had massive economic effects. The virus had a considerable slowdown of economic activities. According to a report by International Monetary Fund (2020), the spread of the virus led to a huge contraction of the economy and the contraction is anticipated to worsen than the 2008-2009 Global Financial Crisis. The economic effects of the pandemic are widespread and are very pronounced in the labor markets, the supply chains and in the financial market.

The effects of COVID19 have been felt in various sectors across the world. For instance, COVID 19 has greatly affected the private sector. This is a result of the containment measures and policies meant to curb the spread of the virus and the economic costs of these actions. Firms in Europe and Central Asia (ECA) are struggling throughout sectors such as manufacturing, tourism and retail, and many are unable to operate under the current containment measures (Arizti et *al,* 2020). The disruption of supply chains due to containment measures has impacted trade of intermediate goods and services and the auxiliary logistics sector.

In Africa, although the statistics indicate that the number of COVID are relatively lower as compared to Europe and Asia, the economic effects have been felt widely (Loembé et *al*, 2020). For instance, various sectors in the African economies are experiencing slowdowns due to the pandemic. The SME, tourism, transport, oil sector, and other sectors. In South Africa, due to the Covid-19 containment measures, the GDP fell by 51 per cent from the first to the second quarter of 2020. There has been substantial food and economic insecurity due to COVID-19 and control measures put in place. There has been a complete loss of income among some people, while others suffer atrial income losses. Also, there have been increased food prices in most African countries. In Kenya, the first case of COVID 19 was announced on 12thMarch 2020. Since then, the virus has rapidly spread across the country and the associated economic consequences of COVID 19 pandemic have greatly impacted on the

long-term health, wellbeing and poverty levels of the people as a whole (Wambua *et al*, 2020).

COVID 19 Containment Measures

The rapid spread of the virus led to the governments across the world to institute measures with an intention of preventing its spread (Fong *et al*, 2020). Among the measures instituted is social distancing. This control measure seeks to reduce the number of contacts between people where transmission could occur. Social distancing involves maintaining a distance between individuals in order to prevent contact. This method is used together with other containment measures to reduce the spread of COVID-19, including wearing masks, avoiding touching the face with unwashed hands, and frequent washing of hands.

Another regulation put in place to curb the spread of COVID 19 is lockdown. This measure was implemented as preemptive action plan to address and ensure the virus does not spread rapidly. This particularly the case when purpose is to prevent the spread of the virus from regions that are highly affected to other areas that either have low cases of the virus or those with no cases at all (Valdano *et al*., 2021). As a result of lock downs, travel is only allowed for essential needs.

In addition to social distancing and lockdowns, in some countries, curfew measures have been put in place. This is an order that specifies the period during which specified regulations apply. This order mostly requires individuals to remain indoors. Curfews typically require people to stay home in the late night and early morning hours. The purpose of curfews is to reduce disease transmission while not completely disrupting people's lives or instituting a community-wide lockdown. Curfews allow people to maintain most of their normal activities while reducing the unnecessary interaction. This measure is instituted by the government to bar congregation of people in social places such as restaurants (Valdano *et al*., 2021).

SMEs Financial Performance

The primary goal of all entrepreneurs is to make profit. Business performance refers to a company's actual output as measured against the business aims and objectives. The idea that a business is the planned relationship of productive assets, such as human, physical, and capital resources, with the intention of attaining a common goal, is the basis of the business performance concept (Barney, 2001). One of the ways of determining the health of a firm is using the financial metrics. This is a subjective measure that is used to determine how well firms can generate revenue utilizing their assets.

There are various ways in which the financial performance of an SME can be determined. However, for best results, all these methods should be aggregated. One of the measures of the financial performance of the SMEs is profitability Potters (2021). This refers to a measure of the efficiency of a firm and ultimately its success or failure. It is the ability of the firm to produce a return on an investment based on its resources in comparison with an alternative

investment. The financial of an SME can also be measured in terms of the cash flows. This is a measure of the net of cash or cash equivalents that the SME transfers in and out. In this regard, the money the SME receives in is called cash inflows while the money transferred out of the business is called cash outflows (Potters, 2021). When the firm has a good cash flow, it indicates its ability to cover obligations, reinvest in its operations, return money to its shareholders, and it makes it possible for the firm to cope with financial challenges in the future.

Sales are another measure of performance. Increased sales volume translates to increased sales revenue which in turn indicates good financial performance (Scott, 2021). Turnover can also be used to measure firm's performance. This is an accounting concept that measures how fast the firm is able to conduct its operations. Mostly, this measure is used to determine how fast a firm collects cash from accounts received and the rate with which firms sell their inventory. Good turnover is this used as an indicator of good financial performance.

The financial performance of SMEs will be determined in terms of profitability. Based on the empirical evidence, the profitability of the SMEs has been impacted negatively by COVID 19 and the containment measures. According to Ma, Liu and Gao (2021), the profitability of the SMEs as a result of COVID19 was due to reduced market for goods and services they offer and due to the directives put in place by the government to contain the pandemic. Similarly, Deyshappriya and Padmakanthi (2022) argued that the profitability of the SMEs worsened during COVID 19 as a result of a disruption in all their aspects particularly due to reduced access to supplies and reduced demand for goods and services.

SMEs in Nairobi

The SMEs are defined on the basis of the employees they have, the turnover they have annually, and based on their balanced sheet. The European Commission (2003) defines SMEs ventures with less staff, not exceeding 250 in number. According to this definition, the SMEs have less than 50,00, 0000 euros. Micro enterprises are defined those enterprises with not more than 10 employees. Small businesses have less than 50 fifty employees, while medium ventures have less than 250 staff. SMEs contribute significantly to the country's economy and this has led to a dramatic increase in their number globally (Calvin, 2002).

Research Problem

SMEs are key economic drivers in both developing and developed economies (Love & Roper, 2015). In Kenya, the SMEs constitute 91% of the businesses and provide about 30% of jobs in a year and their contribution is about 80% of the income (Maengwe, & Otuya, 2016). However, these businesses fail to meet their goals and a large number of them do not see their third year in operation (Douglas *et al*, 2017). Although the failure is caused by different factors, an outbreak of a pandemic majorly disrupts supplies, raise the input costs, and limit the customers' purchasing power.

Research Objectives

i. To find out how lockdown affects the SMEs financial performance in Nairobi.
ii. To establish the impact of curfew on SMEs' financial performance in Nairobi.
iii. To evaluate how social distancing affects the financial performance of SMEs in Nairobi.

Research Questions

i. How did the lock down impact on the financial performance of SMEs in Nairobi?
ii. How did curfew impact the financial performance of SMEs in Nairobi?
iii. What was the effect of social distancing on the financial performance of SMEs in Nairobi?

Significance of the Study

The study can help Policy makers to understand the exact situation facing the SMEs as a result of COVID 19 control measures. This can in turn help the policy makers to design suitable policies that can help the SMEs to cope with the pandemic. The study will furnish the SMEs owners with key insights on how COVID 19 containment measures affect them. This will in turn help them to put in place effective measures to cope with the pandemic and to record good performance. Additionally, the study will contribute discourse on COVID 19 and act as a reference source in other related studies.

Scope of the Study

The SMEs licensed and operating in Nairobi CBD will be covered in this study. Nairobi was chosen as a result of easy access to the researcher. Nairobi was also considered suitable because it hosts a large number of SMEs operating in various sectors. The study focused on SMEs operating in all sectors for the purpose of fair and adequate representation. The study only focused on COVID 19 containment measures that is lock down, curfew and social distancing. Data was gathered the people who own SMEs within Nairobi County. The study focused on the financial performance of SMEs from March 2020 to August 2022. March 2020 was chosen as the since that is when COVID 19 first case was reported in the country. The pandemic is still there up to date and therefore, the study covered up to the most recent data.

Limitations

A number of limitations were faced during the study. One of the challenges was the reluctance by the SMEs to give data pertaining to financial performance. This was mitigated by clearly explaining the study purpose and assuring the privacy. Reaching out to the SMEs owners to partake in the study was also be challenge. This was because the virus is still spreading and there is fear of infection. To mitigate this, a longer time was allocated to data collection exercise in order to make is possible to reach as many respondents as possible.

LITERTAURE REVIEW

Introduction

In this section, the study presents an extensive review of literature on COVID 19 containment measures and the associated effects on businesses performance. A theoretical framework, an empirical review, and a conceptual framework are all covered in this section. The theoretical framework delves into the foundational theories of the research. The empirical review analyzed studies, while the conceptual framework discusses how the study variables relate.

Theoretical Framework

This section discusses the theories that were used to inform the study on the effect of COVID 19 containment measures on the SMEs financial performance.

Structural Inertia Theory

This framework was originated by Hannan and Freeman (1977). This theory argues that certain businesses may fail or survive due to natural selection processes beyond their control (Hannan & Freeman, 1977). This contradicts other ideas, such as those in resource dependency theory, which assumes that businesses willfully adjust to changes depending on their capacity. As population ecology theory progressed, the concept of structural inertia became more prominent in explaining why many businesses are unable to adjust to changing conditions (Hannan & Freeman, 1984). According to this notion, certain businesses will not be able to exist when the business environment changes.

The structural inertia theory appears to hold promise as a lens to determine the reason some businesses perform better than others when a pandemic occurs. In regards to the SMEs, under normal conditions, these businesses fail more frequently as compared to large businesses as a due to constraints (Hannan & Freeman, 1984). When a pandemic occurs, the performance of these businesses is worsened as the majority of them lack sufficient resources which are necessary for them to be resilient enough to survive.

Resource Dependence Theory

Barney's (1991) developed this model and combined both the firm’s core competences and the external factors on strategy. Resources are more categorized broadly defined into tangible and intangible resources. The other category is organizational which includes the processes and routines within the organization. The economic rent concept: the concept of an organization as a blend of skills underpin the resource-based perspective of businesses (Kay, 2000). According to the traditional strategy models, there is a need for a fit between the firm’s external environment and the capabilities of the firm, whereas the RBV emphasizes the necessity for a fit between the external market context in which a firm operates and its internal capabilities.

The resource dependence theory argues there is high reliance between a firm and its environment and as a result of this dependency; uncertainty arises since other firms in the external environment may fail the firm for various reasons. (Craighead, Ketchen Jr, & Darby, 2020). In such a case, firms put in place different measures and strategies in order to eliminate or decrease their reliance on the external parties. It is worth noting, however, that although these strategies may be effective for normal modes of operation and typical disruptions, they mail fail to work when supersonic pandemics occur. Additionally, while these structures may succeed in typical short-term disruptions, they may lack merit when pandemics with dynamic dependencies (Craighead, Ketchen Jr, & Darby, 2020).

Real Options Theory

This model theory which was founded by Myers (1977), is a modern framework that discusses how business owners and managers cope with uncertainties. In this theory, a real option refers to a choice that is available to the firm in regards to an investment. This theory is based on logical financial options in capital investments in the sense that they create a certain level of valuable flexibility. Real options theory is based on the notion that firms have choices on when to invest, that their proposed project is analogous to an option, and that doing so presents an opportunity rather than a necessity.

Real options theory is concerned with how a company's management makes better decisions in the face of uncertainty. This is accomplished by creating themselves actual choices, rather than obligations, to make bold judgments (Sharma et al, 2020). When pandemics strike, there is no doubt that they create the highest levels of uncertainty, putting business owners in perilous situations. To deal with this, some corporate leaders seize chances by fast altering their operating models.

The relevance of real options theory in this study is in its ability to show how the SMEs owners in Nairobi cope with the COVID 19 pandemic containment measures. These measures highly disrupted the performance of the businesses. Lock down for instance highly disrupted the supply of goods between places. Curfew shortened the daily duration the businesses operate thus reducing the sales made. Social distancing mostly affected the service industry whereby the number of customers that could be served at any given time was highly reduced which in turn reduced the amount of sales the businesses make. In response to this, businesses owners adopt various strategies in order to survive and continue doing business.

Empirical Literature

Lockdown and Financial Performance

Juergensen, Guimón and Narula (2020) analysed the COVID 19 policy responses and the associated effects on SMs in Europe, the findings indicated that the pandemic has severely affected the SMEs. Based on the analysis, both the downstream and upstream activities of all the SMEs have been affected by the lockdowns instituted as a control measure of the

pandemic. Specifically, on the supply side, stand-alone SMEs have faced considerable issues in logistics. There were also challenges linked to reduced demand for goods and services offered by the SMEs. A reduction in demand for the goods and services affected the sales volumes of these businesses. The study recommended policy interventions to focus on supporting the SMEs through funding, research and innovation. Although this study offered key insights, it was done in Europe and therefore, the findings are not applicable to the SMEs in Nairobi CBD.

Shafi and Ren (2020) analysed COVID-19 and the associated effects on small businesses in Pakistan. Based on the analysis, the findings indicated a large number of businesses had been affected severely by the COVID 19 containment measures. Some of the key challenges experienced by the businesses include financial problems, supply chain issues, reduced sales and poor profit. According to the study, a majority of these enterprises, about 83% were not prepared to handle the pandemic. Among the SMEs that participated in the study, about 2 thirds reported that the lock downs particularly affected their businesses as they halted business operations and made it hard for the businesses to acquire supplies for their businesses and also to deliver orders.

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Curfew and Financial Performance

Khatatbeh (2020) conducted a study on the efficacy of nationwide curfew in preventing COVID-spread in Jordan. The study used descriptive analysis method. The study concluded that the measure was effective in reducing the rate of infections. This is because, curfew measures restricted the congregation of people in social places hence helping to reduce the infection rates. The curfews imposed reduced the operating hours of the business which in turn affected performance. The study recommended for stricter regulations to be put in place, further education to be offered to the public the pandemic and more severe penalties to be imposed on the people who violate the restrictions. These findings of this study are limited to Jordan and not relevant to Kenya. Also, the focus of the study was on curfew and did not analyze the effects of social distancing and lockdown.

Social Distancing and Financial Performance

Jarvis et al (2020) analyzed the effects of social distance measures on the transmission of COVID-19 in the UK. The study used an online questionnaire to collect data from about inquiring about their contact patterns on the previous day. Based on the findings, the study concluded that the social distancing measures have significantly lowered contact levels and have helped to decrease infection cases. The study concluded, however, that the anticipated decrease in incidence did not materialize immediately since there were large delays between infection, the onset of symptomatic disease, and hospitalization, as well as delays in reporting these occurrences. While the social distancing helped to reduce the infection rate, it significantly affected business operations in the country. This study offered key insights on the influence of COVID 19 on the SMEs. However, the study was done in the UK and the

findings are not applicable to the SMEs in Nairobi CBD. The study's focus was also on social distancing only and did not analyze the effects of curfew and lockdown.

Verani et al (2020) did a study in 22 African countries to find out how social distancing policies have impacted businesses. The study used an online questionnaire to collect data from about inquiring about their contact patterns on the previous day. Based on the analysis, the study

Summary of Research Gaps

Numerous research studies have been on COVID 19 containment measures and business performance. However, despite the extensive research, not much has been done in Kenya and the available findings are not applicable to the SMEs in Kenya. Also, for the studies conducted in Kenya, no study has focused on SMEs in Nairobi CBD. This creates the rationale of this study. The literature reviewed and the research gaps are summarized as follows;

Conceptual Framework

The independent variables of the study are COVID 19 containment measures. These measures are lockdown, curfew and social distancing. The dependent variable in this study is the SMEs financial performance. The intervening variables in this study are technological adoption and resource availability. In regards to technological adoption, it is assumed that the businesses that have adopted technological measures have higher resilience. In regards to resource availability, it is assumed that the SMEs with sufficient resources are able to adopt and put in place various strategies such as e-procurement which in turn helps them cope with the effects of the COVID 19 containment measures. The interaction of the variables is shown below;

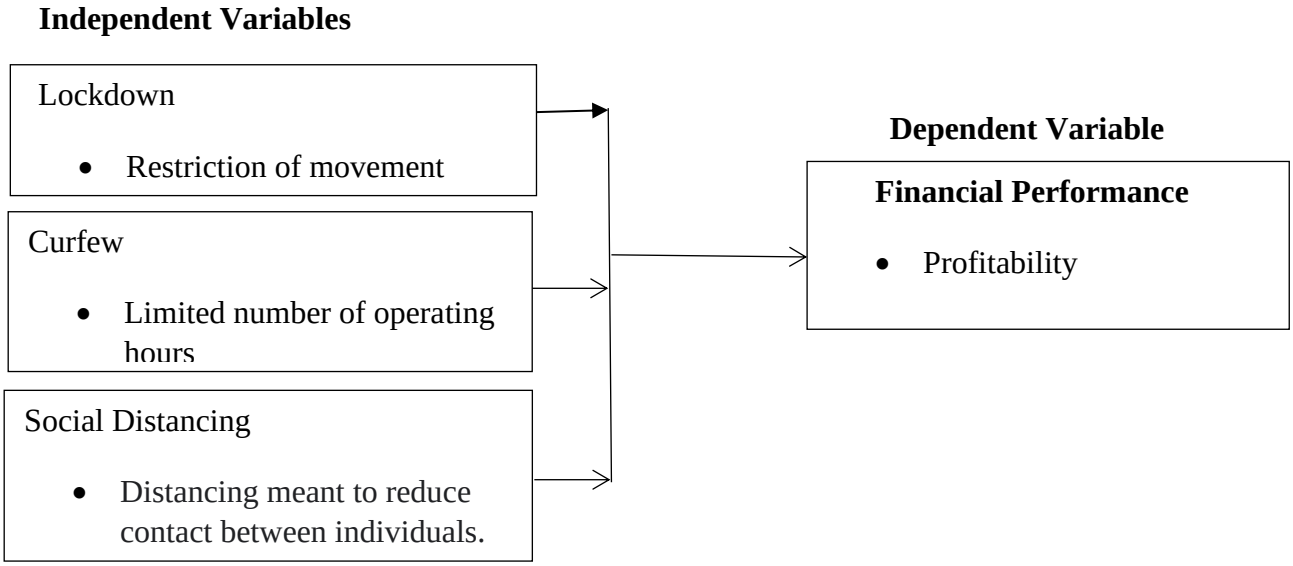

Figure 2.1:Conceptual Framework
Source: Author (2021)

RESEARCH METHODOLOGY

Introduction

This section discusses the procedures and methods that used. This section describes, the study respondents, the research tools, the methods of data collection, data analysis and the ethical guidelines and concerns that guided the research process.

Research Design

The study was based on a descriptive design. Creswell (2014) argues that the design provides a realistic depiction of the phenomenon under the study, and as a result, it provides crucial information for decision-making. The descriptive research design approach helped in determining the impact of COVID 19 containment measures on SMEs' financial performance in Nairobi County.

Target Population

The study targeted the owners/managers of all registered SMEs in Nairobi County will make up the target group for this study. According to Nairobi Metropolitan Services (2021), there are 5000 registered and active SMEs in Nairobi CBD. Therefore, the target population were 5000 owners of small businesses. The businesses in the various presented as follows.

Table 3.1: Target Population

Category of SMEs	Total Number
General Trade, Wholesale, Retails, Stores	1,869
Professional and Technical Services	1,242
Transport, Storage and Communications	1,200
Industrial Plants, Factories and Workshops	689
Total	**5,000**

Source: Nairobi Metropolitan Services (2022)

Sample and Sampling Procedure

Taro Yamane formulae (1967) is utilized to determine the number of businesses to partake in the study.

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{5000}{1 + 5000(0.05^2)}$$

$$n = 370 \text{ SMEs}$$

The sample size in each category was computed as follows;

$$\text{Sample size in each category} = \frac{n}{N} \times C$$

Where n=370

N=5000

C=Total number of SMEs in each category (sector)

Table 3.2: Sample Size.

Category of SMEs	Total Number	Sample
General Trade, Wholesale, Retails, Stores	1,869	138
Professional and Technical Services	1,242	92
Transport, Storage and Communications	1,200	89
Industrial Plants, Factories and Workshops	689	51
Total	**5,000**	**370**

Source: Nairobi Metropolitan Services (2022)

The SMEs to partake in the study were picked stratified sampling technique. Stratification ensured the SMEs in different sectors are representative. Random sampling method was utilized to pick the business to take part in the study. This technique gives every unit in the population equal chances of inclusion in the study. It helps to eliminate sampling bias. Purposive sampling was used to select the business owners as they are well conversant with the businesses and thus suitable to give reliable data required for the study.

Data Collection Instruments

A questionnaire was used to collect data. The questionnaire was sectioned into various segments. The first segment will capture demographic data about the respondents as well as data about the businesses. The second part gathered data on lock down and the associated effects on the SMEs. The other part gathered data on curfew measures, and the last section captured data on social distancing.

Pilot Study

Piloting was done ahead of the actual study. Six SMEs owners participated in the study. The participants were selected from each sector. The pilot process helped in the identification of potential challenges that were likely to be faced. The piloting process also helped to enhance the research tools.

Validity Analysis

A research tool is considered valid if it can accurately measure what it was designed to measure (Kothari, 2004). For the purpose of this study, content and face validity was determined. To establish content validity, supervisors were consulted and talks were held. Face validity was used to ensure if the questions are clear and not ambiguous.

Reliability Analysis

Test-retest procedure was used to determine the questionnaire's reliability. This helped in determining the questionnaires' consistency. The Cronbach coefficient alpha was used to determine the reliability of the questionnaire. A Cronbach value of 0. 79 was obtained indicating high reliability.

Data Collection Procedures

Data collection was done by the researcher aided by several assistants. When undertaking the exercise, the data collectors first introduced themselves and explained the goal of the study in order for the respondents to give informed consent. On agreeing to participate, the data collectors administered the questionnaires themselves.

Operationalization of Variables

The study variables are operationalized in this study as follows;

Table 3.3: Operationalization

Variable	Type	Operationalization	Measurement	Measurement Scale
Lockdown	Independent Variable	A policy that bars people from movement form place to place as a means of preventing the spread of COVID 19.	Movement restriction	Ordinal
Curfew	Independent Variables	An order that specifies time during which individuals must stay indoors.	Limited number of operating hours	Ordinal
Social distancing	Independent Variables	This involves maintaining a distance between individuals as a means of preventing the spread of COVID 19.	Physical distancing to reduce contact	Ordinal Scale
Financial performance	Dependent Variable	This measures of how well businesses use assets to create revenue.	Profitability	Ordinal Scale

Source: Author (2021

Data Analysis

Data analysis was done quantitatively. This is a strategy that uses mathematical and statistical modeling, and measurement to try to understand behavior (Kwiatkowska, Norman, & Parker, 2006). SPSS version 28 was used to do the analysis. Descriptive analysis was utilized for the purpose of this study. The descriptive methods helped to describe the respondents, the businesses and the respondents' perspectives regarding COVIUD 19 and their performance of their businesses.

Ethical Considerations

A number of ethical principles were observed in this study. First, a research permit will be obtained from NACOSTI. Before administering the questionnaires, the researcher introduced the study in order to make the respondents fully aware before giving consent. Utmost confidentiality was upheld as a means of protecting the respondents. All activities that can harm the respondents either physically or emotionally were avoided. Data analysis was done free from personal bias.

DATA ANALYSIS AND DISCUSSIONS

Introduction

This chapter presents data analysis and discussions. The data analyzed was collected from the SMEs owners in Nairobi and analyzed using SPSS. The chapter was structured based on the research objectives. The first section presents the response rate. The second section presents demographic analysis, the third section analyses the effects of lockdown measure on the performance of SMEs, the fourth section analyses the effect of curfew while the fifth section covers the analysis of the effect of social distancing.

Response Rate

The study targeted 384 SMEs owners in Nairobi and 309 dully answered all the questions. This formed 80.46 response rates. This was more than 50% and hence sufficient to yield reliable results (Kothari, 2004).

Table 4.14: Response and non-response rate

Response	309	80.47%
Non-response	75	19.53%
Total	**384**	**100**

Source: Field data (2022)

Demographic Analysis

Analysis here was done with an aim of understanding the respondents and the businesses. The purpose was to a profound understanding of the SMEs owners and the businesses. The variables analyzed included gender of the respondents, age, highest education level, the duration the businesses have in operation and the number of employees.

Gender of the Respondents

The majority of the SMEs owners in Nairobi County were males accounting for 56.96%. The female SMEs owners accounted for 43.04%. The findings indicate that the SMES sector is male dominated. However, there was no huge difference between the male and the female SMEs owners.

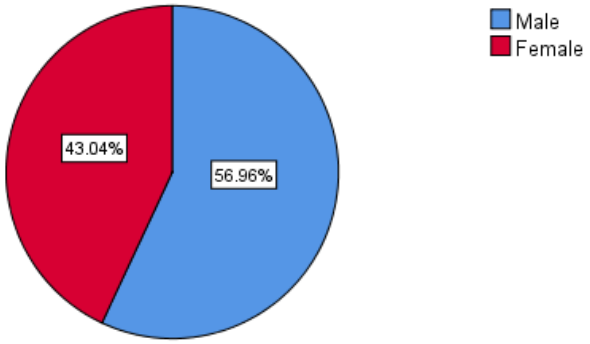

Figure 4.1: Gender
Source: Field data (2022)

Age

Age analysis showed that 39.48% of the respondents were aged between 26-35 years, 32.69% were aged between 36-45 years,15.21% were aged between 18-25 years and 12.62% were aged between 46-55 years. The results imply that a majority of the young people have ventured into self-employment by establishing SMEs. This can be attributed to lack of opportunities in the mainstream job market as well as the dissatisfaction with formal jobs.

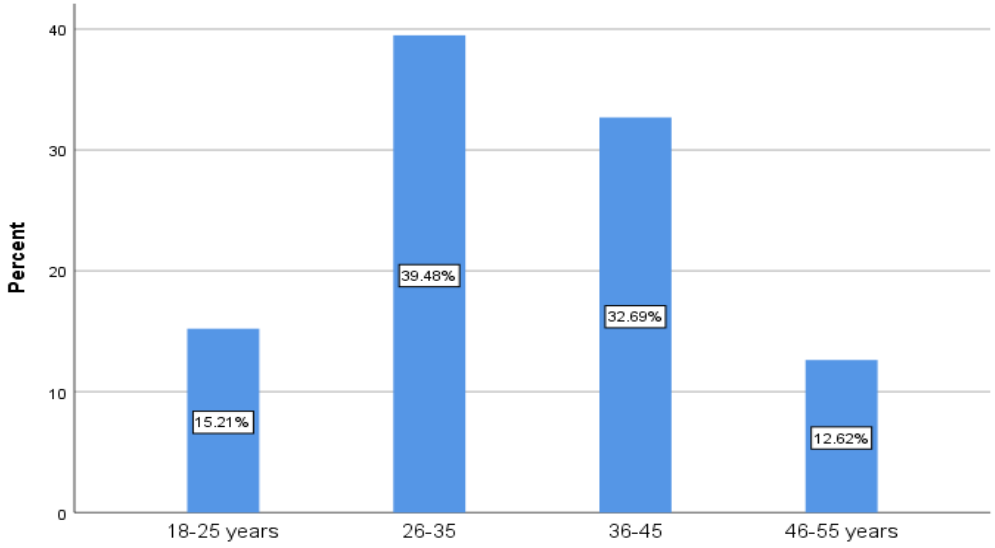

Figure 4.2: Age
Source: Field data (2022)

Education Level

The purpose of the analysis here was to determine the highest level of educational attainment by the SMEs owners in Nairobi county. The findings are shown as follows;

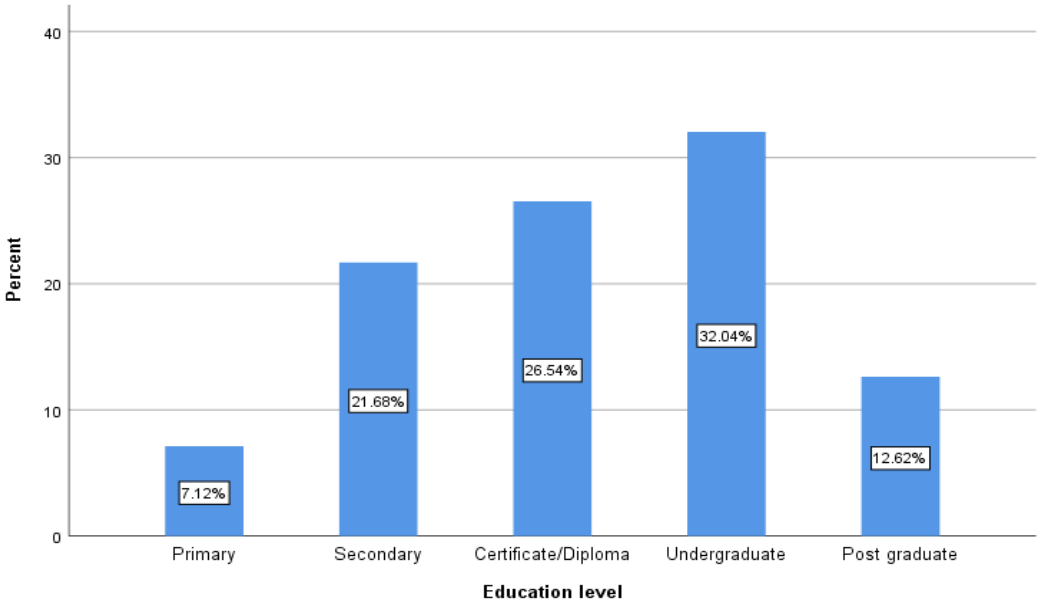

Figure 2.3: Education level

Most of the business owners had undergraduate degrees accounting for 32.04%. The respondents who had attained college diplomas and certificates accounted for 26.54%, those at secondary level were 21.68%, and those at primary level were 7.12% while 12.62% had post graduate degrees. The findings indicate that the majority of the respondents had high

literacy levels. This shows that young people consider starting up SMEs after completion of education as a result of failure to secure white collar jobs.

Duration of Operation

The majority of the SMEs had operated for 1-5 years accounting for 62.46%. Some businesses had existed 6-10 (20.71%), those that had operated for over 10 years accounted for 9.71% while 7.12% had existed for less than one year. The results indicate that the majority of the enterprises had operated for less than 5 years. However, all the businesses included in the study had been in operation during COVID 19 and they were therefore well placed to give data.

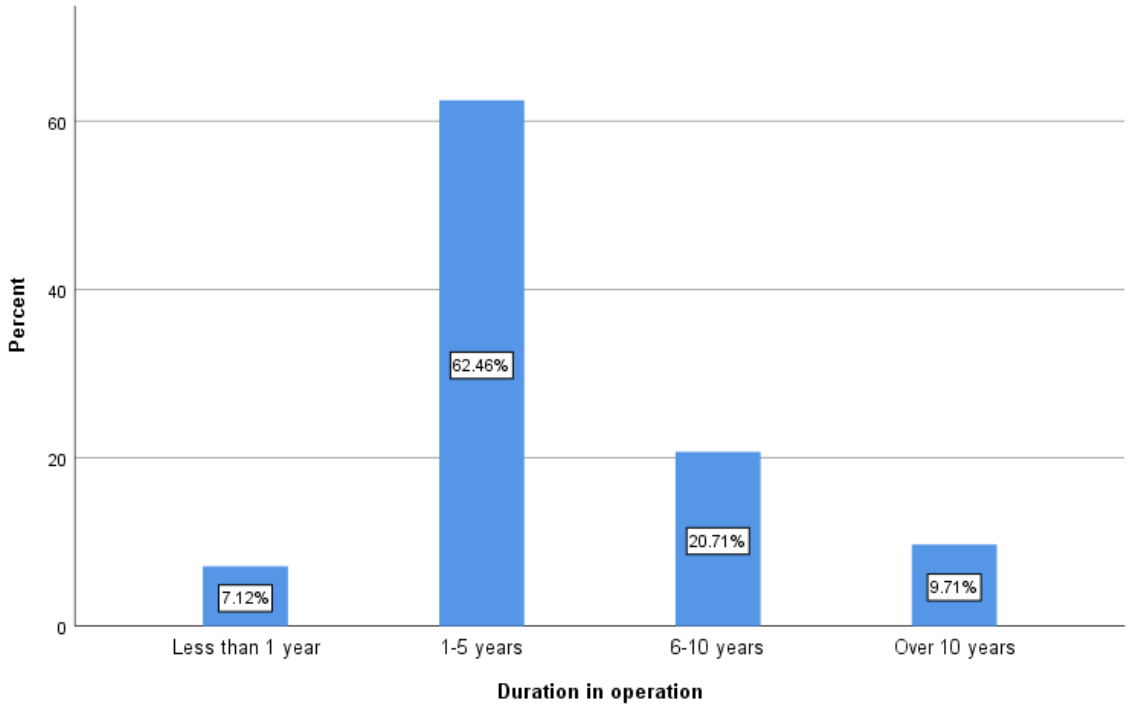

Figure 4.4: Duration of business existence

Number of Employees

The findings on figure 4.5 indicates that the 49.84% of the SMEs have less than 10 employees, 30.74% have 10-30 employees, 11.65% reported that they have 31-50 employees and 7.77% had more than 50 employees. The findings indicate the majority of the SME's in Nairobi have less than 10 employees, and cumulatively, the majority of the businesses have less than 30 employees. The low number of employees is attributed to the fact that most SMEs had laid off workers during COVID 19 pandemic as a means of cutting on operating costs.

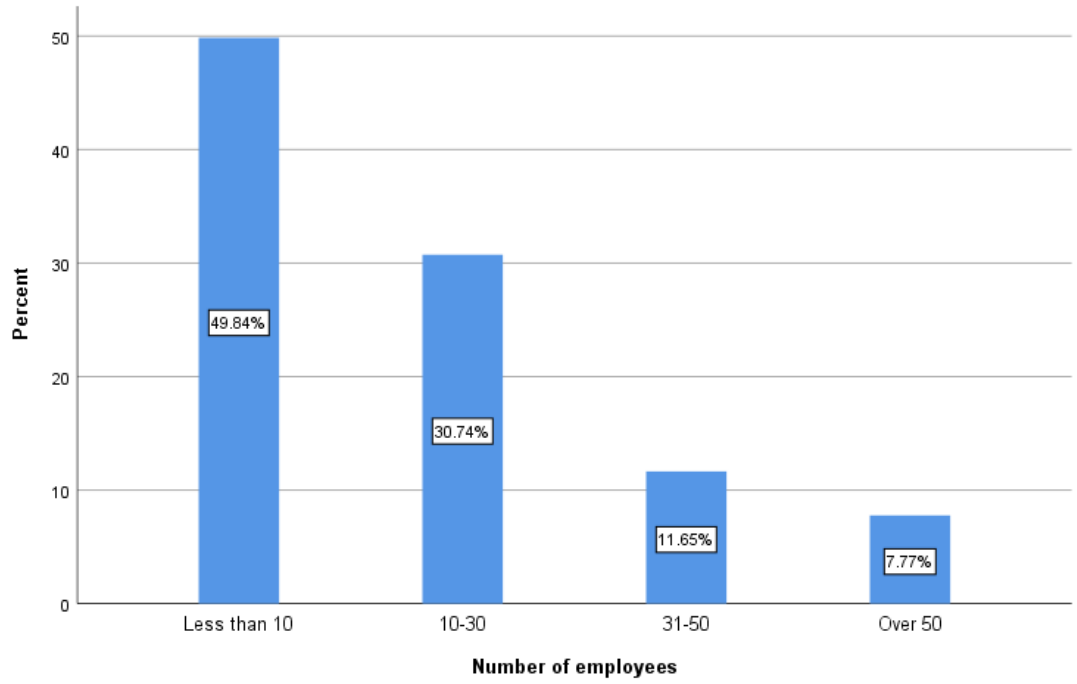

Figure 4.5: Number of employees
Source: Field data (2022)

Diagnostic Tests

Various tests were done to determine whether the data was suitable for inferential analysis. The tests done were tests of normality, multicollinearity and heteroscedasticity

Test of Normality

Normality tests were done to determine whether the data collected was normally distributed. This was done using Shapiro-W Wilk's test. This test was preferable as the sample size was not particularly large. This test is considered suitable for sample size of between 50 and 2000 elements. The results are presented on the table below;

Table 4.2: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Performance	.275	309	.000	.797	309	.000

Source: Field data (2022)

From the results, the Shapiro Wilk p value was greater than 0.05 which indicate that data used was drawn from normal distribution.

Multicollinearity

Multicollinearity test was done to determine whether the variables were independent of each other. This was done using variance inflation factor (VIF) values. For the data to be considered suitable the tolerance values should exceed 0.1 and VIF (Value Inflation Factor) numbers must exceed 1 and not exceed 10.

Table 4.3: Multicollinearity tests results

	Collinearity Statistics	
	Tolerance	VIF
Lock down	.666	1.502
Curfew	.803	1.246
Social distancing	.572	1.748

Source: Field data (2022)

Based on the results, the tolerance values were greater than 0.1 and the VIF values were greater than 1 but less than 10. This indicates absence of multicollinearity

Heteroscedasticity

Heteroscedasticity was tested to determine whether variance of the errors from the regression is dependent on the values of the independent variables. This was tested using a scatter plot. The results are presented on the figure below;

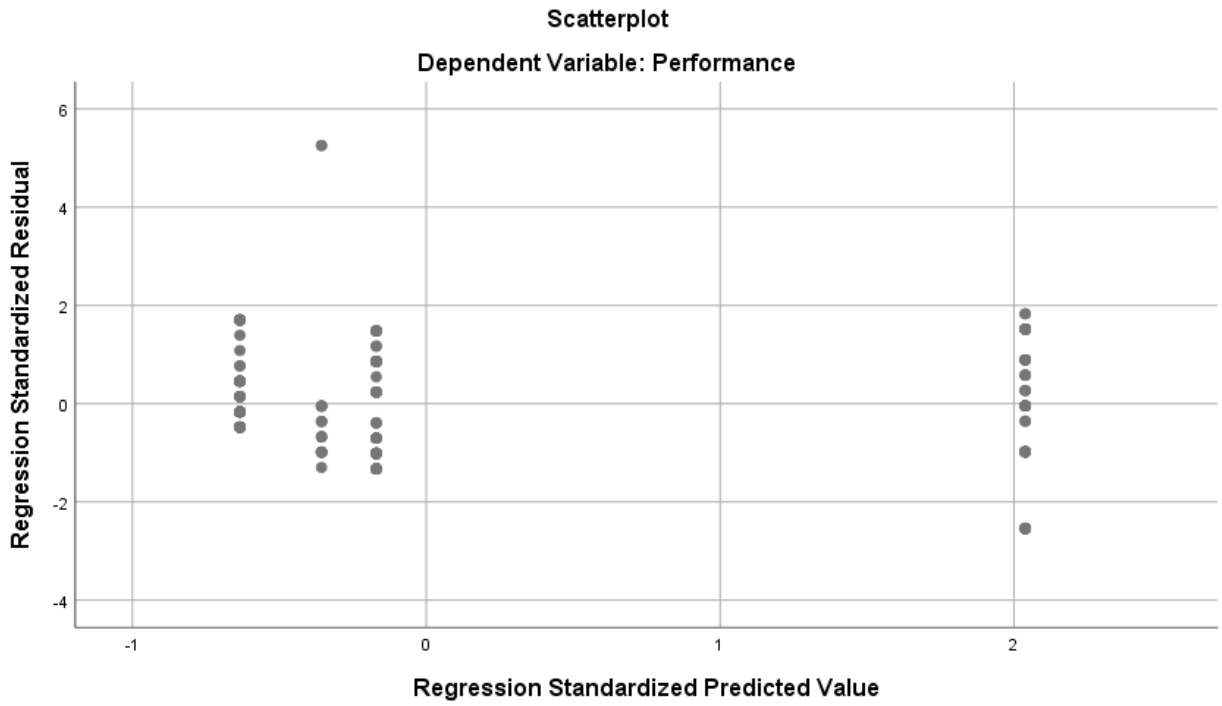

Figure 4.6: Heteroscedasticity tests results
Source: Field data (2022)

The figure shows that there was no observable trend in the distribution of the residuals which shows that there was no heteroscedasticity

Descriptive Analysis

Descriptive analysis was done in order to understand the SMEs owners' perspectives regarding the effects of COVID 19 containment measures.

Lock Down Measures

Lock down was instituted by the government to prevent and minimize the spread of COVID19. The SMEs were among the sectors that were highly affected by this measure. The functions that were highly affected by lock down were sourcing and distribution of goods to the market. To begin with, analysis was done to determine the extent to which the businesses relied on supplies outside Nairobi.

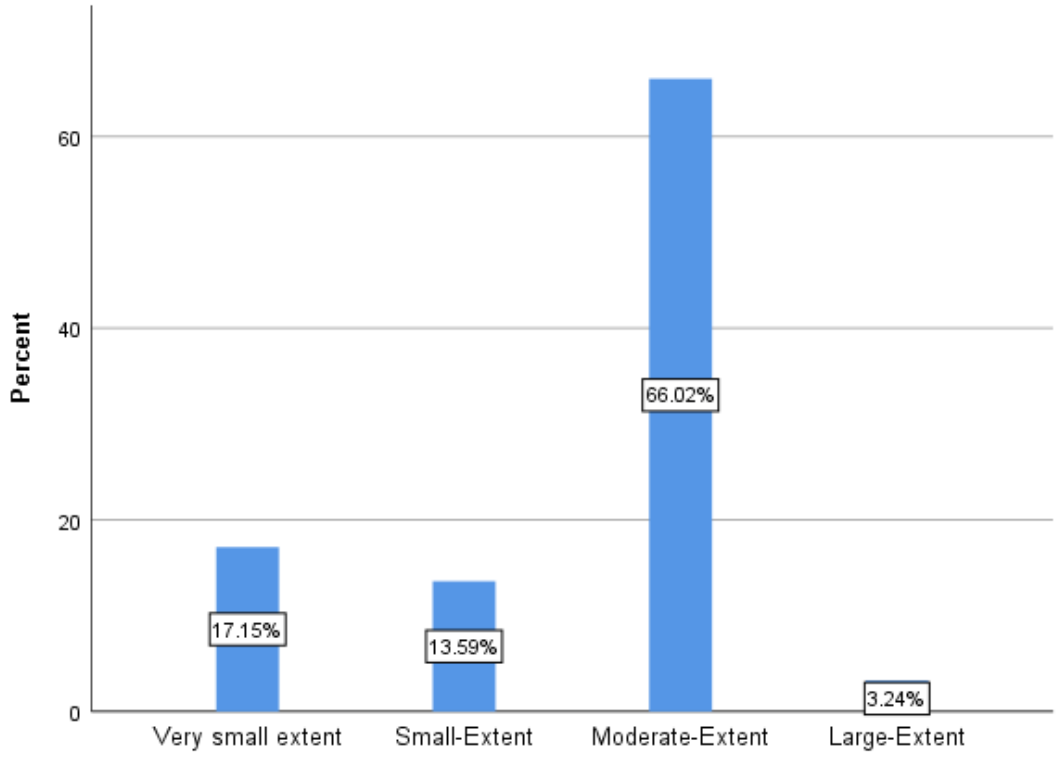

Figure 4.7: Reliance on supplies outside Nairobi
Source: Field data (2022)

Based on the findings on figure 4.6, 66.02% reported that they relied on supplies from Nairobi to a moderate extent, 13.59% reported that they rely on supplies outside Nairobi to a small extent, 17.15% reported that they rely on supplies outside Nairobi to a very small extent, and 3.24% reported that they rely on supplies outside Nairobi to a very large extent. The findings indicate most of the businesses sometimes relied on supplies from outside Nairobi and sometime sourced their supplies within Nairobi.

On market, the majority of the businesses reported that they relied on the market outside Nairobi to a very large extent accounting for 47.25%. Those that relied on market outside to a very large extent accounted for 20.06%, those who reported that they rely on markets outside Nairobi to a moderate extent accounted to 14.56%, those that rely on markets outside Nairobi to a small extent accounted for 11.97% while a small proportion of 6.15% reported that they rely on markets outside Nairobi to a very small extent.

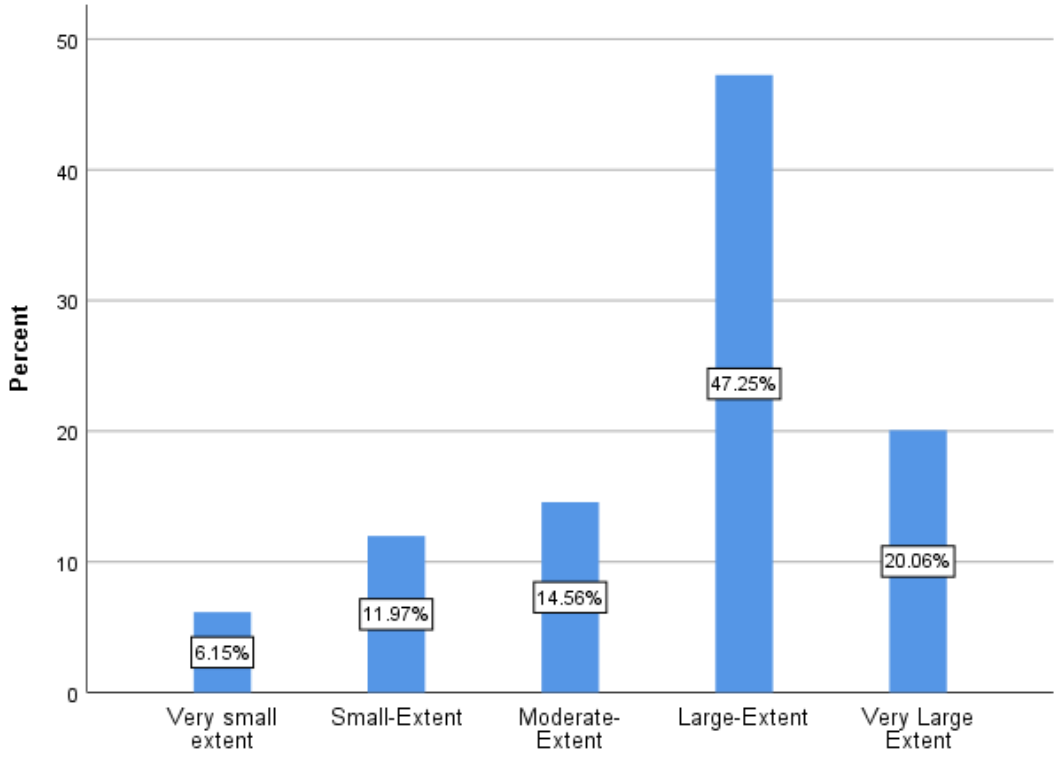

Figure 4.8: Reliance on markets outside Nairobi
Source: Field data (2022)

From the analysis, most respondents reported that they were affected by the lock down to a moderate extent accounting to 51.13%. Some respondents reported that they were affected by lock to a large extent (30.10%), others reported that they were affected by lock downs to a very large extent (11%), 5.18% reported that they were affected by lockdown to a small extent while 2.59% reported that they were not affected by lock down at all accounting for 2.59%.

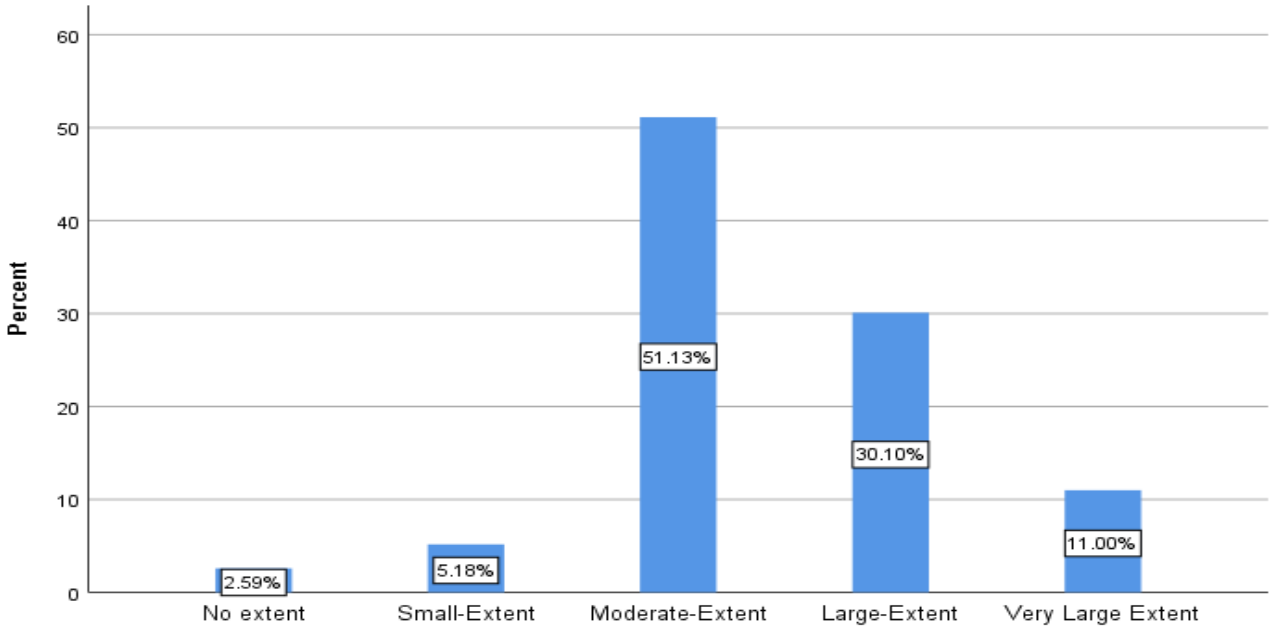

Figure 4.93: Extent to which lock down has affected the performance of SMEs
Source: Field data (2022)

Table 4.4: Lock down and performance of SMEs

Statement	N	Mean	Std. Deviation
Lock down measures have led to shortage of raw materials or inputs for my business	309	3.9029	1.06766
Lock down measures have led to delays in getting raw materials/supplies	309	3.8511	1.15538
Lock down measures have led to reduction of orders/reduced sales /number of customer	309	3.8576	1.11620
Lock down measures have led to inability for us to deliver existing orders to customers	309	3.8835	1.10460
Lock down measures have led to limitations of moving products to customers outside the county	309	3.8447	1.12027

Source: Field data (2022)

Curfew Measures

Curfew is one of the measures used to curb the spread of COVID 19. This measure was meant to curb and minimize to reduce nonessential interactions between individuals to curb

the spread often virus. In this section, the purpose was to determine how the SMEs were affected by this measure. To begin with, the business owners to tell the hours they operate in a day. This was to determine whether the operating hours of the businesses were affected by the curfew measure.

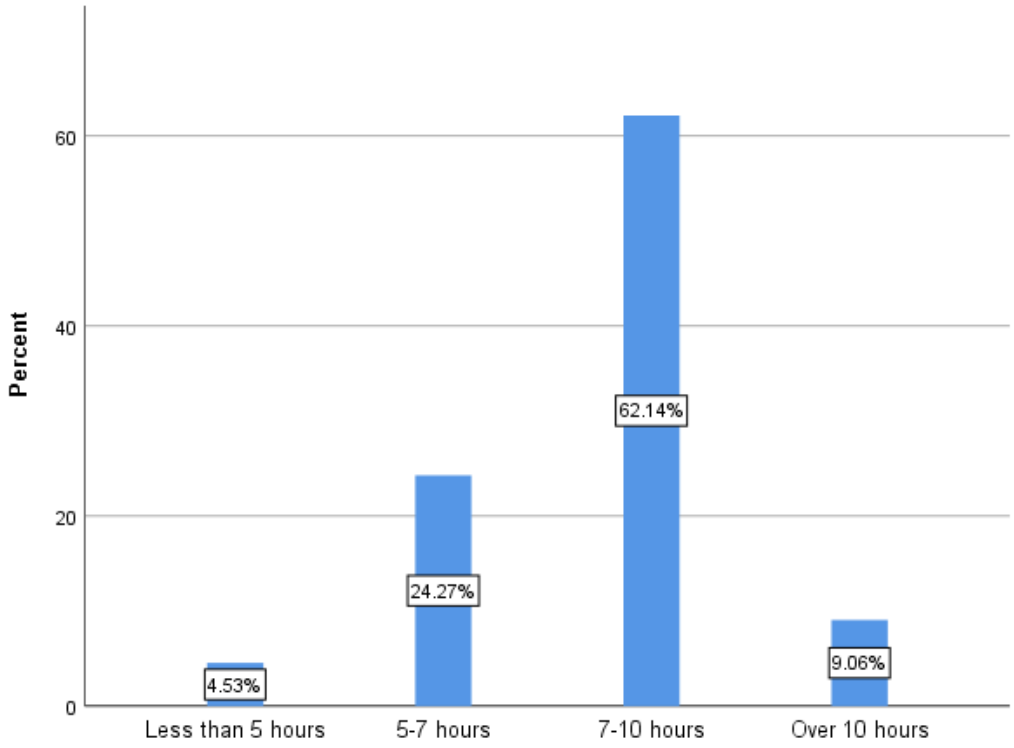

Figure 4.10: Hours the businesses operate
Source: Field data (2022)

Based on the analysis, 62.14% reported that they operate for 7-10 hours, 21.27% operate for 5-7 hours, 4.53% reported that they operate for less than 5 hours, and 9.06% operate for over 10 hours. The SMEs that operate for up to 10 hours are mainly those involved in general trade, wholesale, retail shops, and stores. Those that operate for over 10 hours were mainly the hotels and restaurants, those in transport and logistics and bars and night.

The majority of these businesses that operate at night operate up to 9 pm accounting for 40.09%, those that operate up to 10 pm account for 32.76%, that that operate for up to midnight accounted for 10.78%, and those that operate past midnight accounted for 5.17%. The findings show that cumulatively, the majority of the SMEs that operate at night operate up to 10 pm. These businesses that operate at night were the most affected by the night curfew.

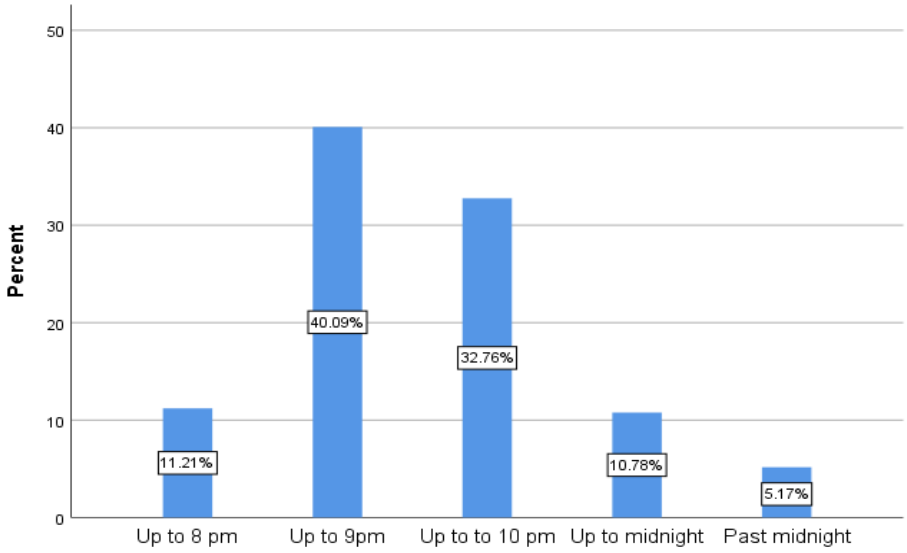

Figure 4.12: Hours worked at night
Source: Field data (2022)

Further analysis was done to determine the extent to which the businesses were affected by curfew. Based on the findings most of the SMEs reported they were affected to a large extent as represented by 63.43%. Those whose businesses were affected to a very large extent accounted for 17.80%, those whose businesses had been affected to a moderate extent accounted for 11.65%, those whose businesses had been affected to a small extent accounted for 4.85% while a small proportion (2.27%) were of the opinion that curfew did not interfere with their businesses. Cumulatively, the study indicated majority of the businesses were highly disrupted by COVID 19.

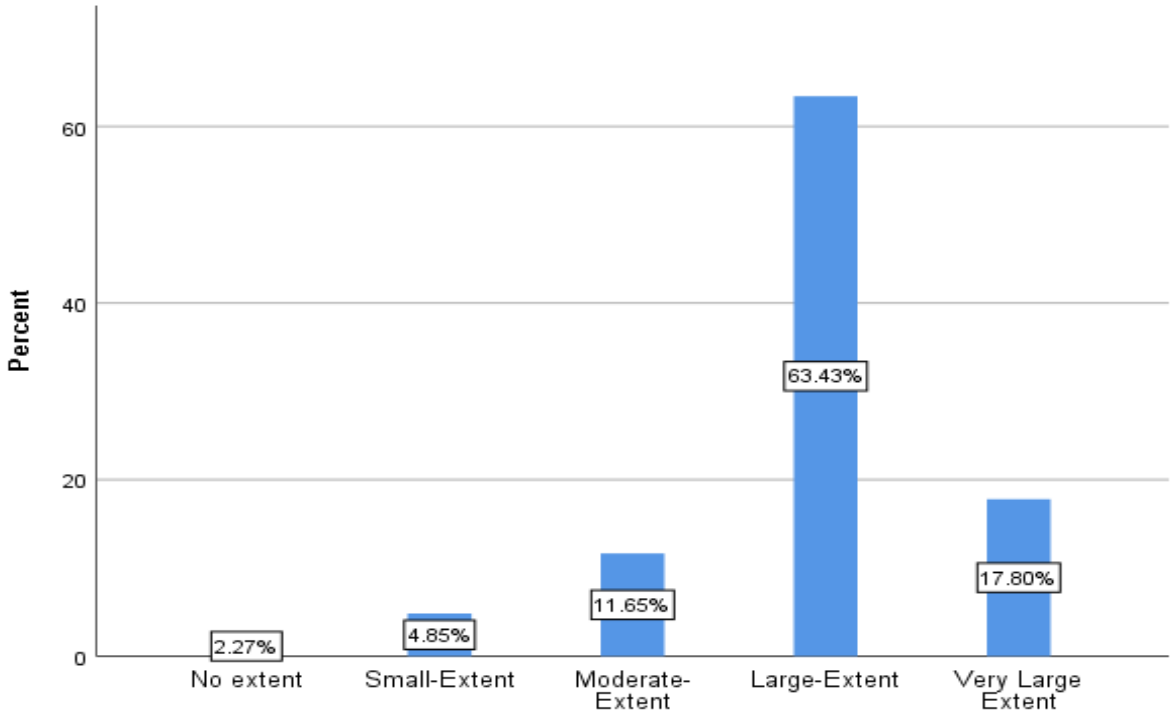

Figure 4.13: Extent to which curfew has affected businesses
Source: Field data (2022)

For the businesses that require physical premises to serve their customers, the majority of them reported that under normal circumstances, they serve between 5-10 customers at a go. These were mainly the saloons, small food selling establishments, and the barbershops. These businesses accounted for 41.67%. The businesses that serve less than 5 customers at a time accounted for 31.25%. These comprises of cosmetics shops, nail bars, clothing stores and shoe shiners. These businesses accounted for 31.25%. Those businesses that served 11-20 customers accounted for 10.42% and mainly included food selling establishments, large beauty parlors, small restaurants, and the 14 seater public service vehicles. Those SMEs that served 20-30 customers at a time accounted for 16.67% and mainly included training colleges, public transport buses, and larger restaurants.

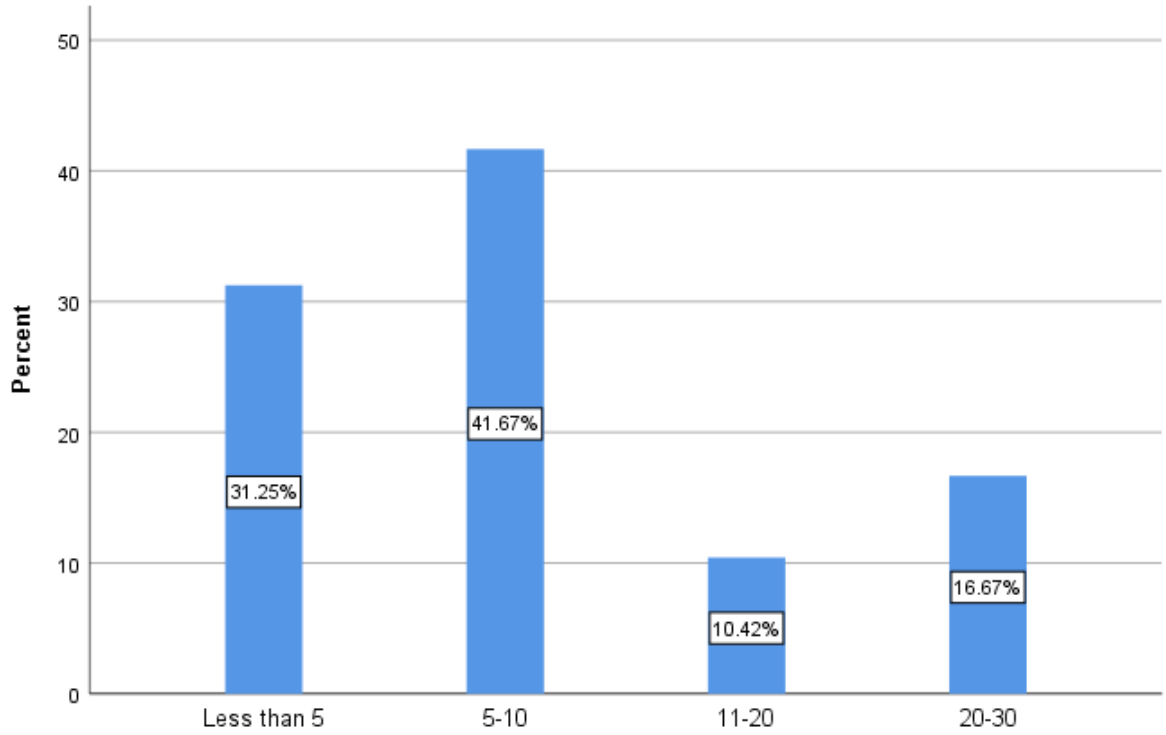

Figure 4.15: Number of customers served at a time
Source: Field data (2022)

Further analysis was done to determine the extent to which social distancing has impacted on the businesses. From the analysis, it emerged that the majority of the businesses were affected by COVID 19 to a moderate extent accounting for 65.70%. Those that were affected by social distancing to a large extent accounted for 22.33%, those affected to a very large extent accounted for 8.09% and hose that were affected to a small extent accounted for 3.88%.

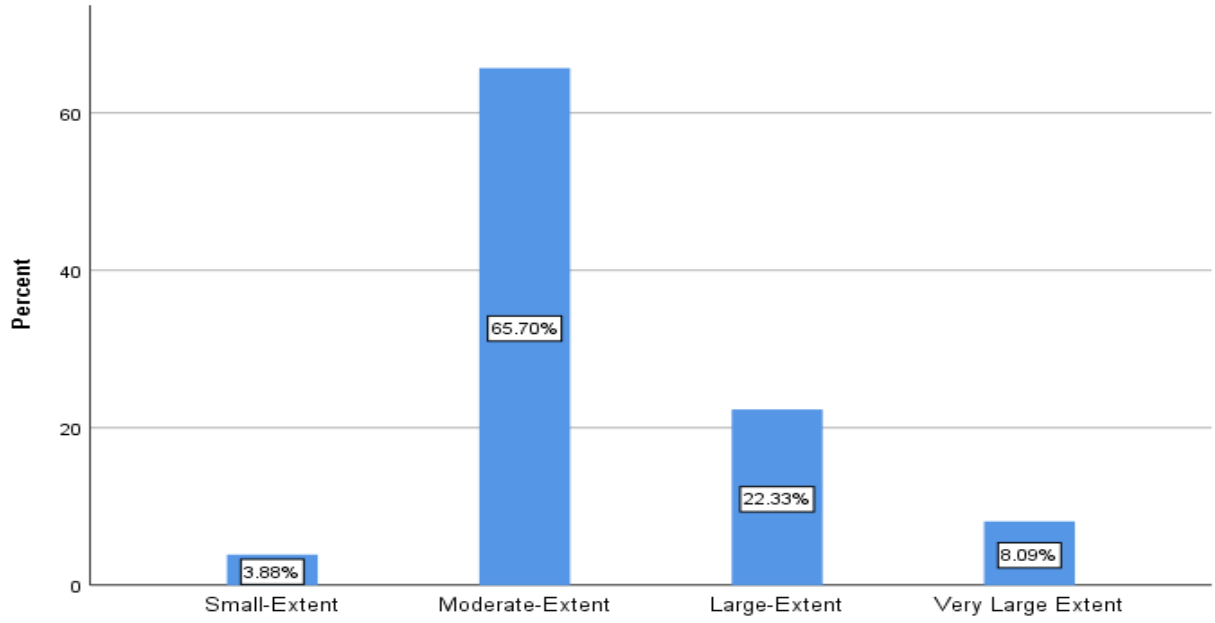

Figure 4.16: Extent to which social distancing affected SMEs
Source: Field data (2022)

On the various performance aspects affected by social distancing, the respondents agreed that the social distancing has led to reduced number of customers (M=3.1197), a significant reduction in profitability of the business (M=3.0874), and a reduction of orders and sales (M=3.0744). The findings indicated that the social distancing limited the number of customers the businesses could serve at a go, therefore reducing sales. Also, the consumer behavior highly changed in the wake of social distancing and customers mostly relied on making orders virtually mostly through online platforms. This was a disadvantage to the businesses that did not have online presence which led to poor sales and low revenue.

Table 4.6: Social distancing and the Performance of SMES

Statement	N	Mean	Std
Social distancing has led to reduced number of customers.	309	4.1197	.94073
Social distancing has led to significant reduction in profitability of the business.	309	4.0874	.94773
Social distancing measures has led to reduction of orders and sales.	309	4.0744	.97249

Source: Field data (2022)

The Financial Performance of SMEs

The profitability of the businesses in the last two years was analysed. From the analysis, the findings indicated that 59.55% reported that the profitability of their businesses has decreased in the last 2 years, 23.62% reported that the profitability of their businesses has greatly decreased, and 5.18% reported that the profitability of their businesses has neither increased

nor decreased in the last two years. Those whose businesses have recorded increased profitability accounted for 8.09% while those whose profitability has greatly increased accounted for 3.56%.

The various aspects of the SMEs that have been impacted by COVID19 containment measures were analyzed. Based on the findings, the SMEs owners strongly disagreed that their businesses have recorded superior performance over the last 2 years (M=1.8835) and that their businesses have experienced competitive advantage over competitors over the last 2 years (M=1.8350).They disagreed that their business was highly profitable than other competing businesses (M=2.9579), that the total revenue of their businesses have increased greatly (M=2.5016), that the market share of their businesses have increased greatly (M=2.4693) and the cash flow of their businesses have increased greatly (M=2.5210). Also, the SMEs owners disagreed that the working capital of their businesses have improved greatly in the last two years (M=2.5663) and the sales volume of their businesses have increased greatly in the last two years (M=2.4919).

Table 4.7: SMEs Performance

Statement	N	Mean	Std
My business has recorded superior performance over the last 2 years	309	1.8835	1.19768
The firm has experienced a competitive advantage over our competitors over the last 2 years	309	1.8350	1.13758
My business is highly profitable than other competing businesses.	309	2.9579	.96101
The total revenue of my business has increased greatly in the last two years.	309	2.5016	1.04018
The market share of my business has increased greatly in the last two years.	309	2.4693	1.07050
Cash flow of my businesses has increased greatly in the last two years	309	2.5210	1.07979
The working capital of my business has improved greatly in the last two years.	309	2.5663	1.07795
The sales, volume of my business has greatly increased in the last two years.	309	2.4919	1.09490

Source: Field data (2022)

Generally, the findings depict that the SMEs have been performing since the onset of COVID 19 and since the containment measures were put in place by the government to contain the spread the of the virus. This is indicated in the reduced demand for goods and services, a decline in market share, a decline in the sales which in turn led to a reduction in revenue generation and performance. Also, the COVID 19 containment measures made the businesses lose competitiveness in the market.

Inferential Statistics

Inferential analysis sought to determine the relationship between COVID 19 containment measures and the performance of the SMEs in Nairobi. This was done using correlation and regression.

Correlation Analysis

This was done to determine the relationship between COVID 19 containment measures and the performance of SMEs in Nairobi county. The purpose was to determine how lock down, curfew and social distancing influenced the financial performance of the businesses.

Table 4.8: Correlation

		Lock down	Curfew	Social distancing
Performance	Pearson Correlation	-.614	-.406	-.539
	Sig. (2-tailed)	.000	.000	.000
	N	309	309	309

Source: Field data (2022)

Based on the findings, the correlation coefficient of lock down -0.614 shows that there was strong negative relationship between lock down and the performance of the SMEs. The p value obtained was 0.0001 which indicate that there was statistically significant association between lock down and the performance of the SMEs and the lock down measure. This implies that following the rolling out of the lock down guideline, the operations of the SMEs were highly impacted leading to poor performance.

Regression Analysis

Regression analysis was done to determine the overall effect of COVID 19 containment measures on the financial performance of SMEs in Nairobi.

Model Summary

The R squared value was 0.7396 (Table 4.9) which indicate that overall, COVID 19 containment measures explained 73.96% of the SMEs' performance. The findings indicate COVID 19 containment measures had strong negative effects on the SMEs' performance. The findings are in agreement with Masago et al (202) who identified that COVID 19 containment greatly disrupted the operations of SMEs in Narok county leading to poor performance.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860[a]	.0.7396	.709	.90121

Source: Field data (2022)

ANOVA

The ANOVA results showed that the changes in the performance the businesses was significantly determined by the COVID 19 containment measures. This is because the p value obtained (0.000) was less than 0.05.

Table 4.10: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.428	3	10.809	13.309	.000[b]
Residual	247.715	305	.812		
Total	280.142	308			

Source: Field data (2022)

Regression Coeffients

The table of coefficients indicates that the lock down, curfew and social distancing had negative beta coefficients which indicate that they had negatively affected the performance. All the p values were less than 0.05 which indicate that the effect of containment measures on the SMEs was statistically significant.

Table 4.11: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	4.758	.203		23.462	.000
Lock down	-.320	.142	-.167	-2.247	.020
Curfew	-.227	.129	-.119	-1.759	.041
Social distancing	-.252	.122	-.130	-2.072	.037

Source: Field data (2022)

Lock down greatly disrupted the supplies from other counties and selling of goods and services outside Nairobi County. The businesses were left with the option of using courier services which were costly during the time. This impacted on the businesses and led to poor performance.

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Chapter five summarizes the findings, and presents conclusions and recommendations. The overview of the findings is covered in the first section. The conclusions made are covered in the second section. The study's recommendations are covered in the third section, and recommendations for further research are covered in the last section.

Summary of the Key Findings

The study identified that the majority of the SMEs owners are youths most of them being males. Cumulatively, most of the business owners have attained post-secondary education with the majority having undergraduate degrees. The largest proportion of these businesses had operated for 1-5 years and they operate with less than 5 employees.

The study identified that the SMEs have been performing poorly in the last two years in the wake of COVID 19 pandemic. The SMEs reported that they have lost market share, competitive advantage, and they have been facing cash flow problems. The businesses also had working capital problems, and they have been making poor sales over the two years. The respondents reported that the poor performance of the businesses was linked to COVID 19 measures put in place by the government to curb the spread of the virus.

On containment measures, the study identified that the businesses were greatly affected by lock down, curfew and social distancing. Lock down mainly affected the logistics of the businesses and posed challenges to the business that sourced supplies from Nairobi and those that needed to distribute their goods and services outside Nairobi Metropolitan. Regarding supplies, most of the businesses relied on supplies from both and outside and lock down therefore was a huge block to their ability to conduct businesses. Also, the businesses to a great extent relied on selling their goods and services outside Nairobi and therefore, lock was a huge hindrance. As a result, some SMEs experienced a shortage of raw materials, delays in getting raw materials and supplies and a decline in orders from outside the Nairobi metropolitan which in turn translated to lower sales and poor revenue. This caused a decline in the performance of the businesses. To cope with the challenges, the SMEs relied on courier services to make deliveries, which was costly.

Conclusions

The study concluded that COVID19 had a significant impact on the SMEs sector as it greatly disrupted businesses activities. First, the study found that lock down highly disrupted the SMEs sourcing and distribution functions. It was difficult for SMEs to sources raw material and supplies from other counties and also, it was difficult for services outside Nairobi. This affected sales and led to poor financial performance.

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Recommendations

A number of recommendations were made based on the findings;

1. The study found that SMEs suffered from financial difficulties and losses following the implementation of COVID 19 containment measures. In this regard, the banking and microfinance are institutions are recommended to actively consider extending loans to the SMEs on favourable conditions in order to help them rebuild their businesses.
2. The study established that many SMEs suffered partly due to lack of sufficient resources to cope with the challenges posed by COVID 19. The SMEs owners are

therefore recommended embrace saving and ensure that the funds they make is used properly. This would ensure that in any of any occurrences such as COVID 19, the businesses would have the resilience to cope.

3. The study found that many SMEs have not adopted digital platforms and that many of them do not use them for businesses purposes. Therefore, it is advised that SMEs owners use these channels to seek a larger audience.
4. The government is urged to establish a dedicated national disaster intervention fund to support the SMEs after COVID19. The government is recommended to establish efficient procedures and regulations for to manage the intervention fund and they should educate SMEs on how to use the funds to grow their enterprises.

Contribution to Practice

The results are practically applicable in the following ways;

1. The study results will help the government and other policy makers to understand the exact situation facing the SMEs as a result of COVID 19 containment measures put in place to curb the spread of the virus. This in turns help the policy makers to design suitable policies that can help the SMEs to cope with the pandemic.
2. The study offers the SMEs owners key insights on how COVID 19 containment measures affect them. This in turn helps them to put in place effective measures to cope with the pandemic and to record good performance.

Areas for Further Research

The study points some gaps that need further research. To begin with, the study only focused on SMEs operating in Nairobi and therefore, there is a need for other studies to be conducted.

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