Effect of Crisis Leadership on Performance of SMEs During Covid-19 Pandemic in Nairobi County, Kenya

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ABSTRACT

The relationship between business continuity management strategies under crisis leadership and organizational success has not been the subject of a lot of empirical studies. The general objective of the study was therefore to determine the effect of crisis leadership on performance of SMEs during Covid-19 pandemic in Nairobi County, Kenya. The study used a descriptive and correlational research design. The study target population was 584 respondents from different Small and Medium-size Enterprises (SME's) industries in Kenya. To select a representative sample size of 237 respondents and gather data from the sample, a stratified random sampling approach was utilized. The study used primary data by the use of questionnaire. SPSS version 23 program was used to organize and analyse the collected data. According to the findings, crisis management safeguards the reputation of the organization, which can have a long-term impact on sales and profits ($r (103) = 0.750$, $p<0.05$). There was a significant linear association variation between crisis leadership and performance ($F (1,181) = 232.183$, $p<0.05$), and crisis leadership accounted for 56.2 percent of the variance in SMEs performance. The intercept between crisis leadership and performance improves by $= 0.337$, $p<0.01$, according to the findings. In conclusion, crisis leadership improved company continuity by lowering crises in urgent situations and that leaders who assume leadership roles during crises need to combine the necessary skills, knowledge, and abilities. Most SMEs can prevent potentially disastrous crisis outcomes by supporting competent leadership, and crisis management protects the organization's reputation. The study recommends the executive and management of the SMEs sector in Nairobi County. SMEs should develop strong leadership to improve performance in order to prevent potentially disastrous crisis-related outcomes. As they must combine the necessary skills, knowledge, and talents, managers are required to take the lead throughout the crisis. SMEs should create organizational guidelines to streamline the crisis management process within each of their operational domains.

Keywords: *Crisis, Leadership, Performance, During Covid-19, Pandemic, SMEs, Nairobi, Kenya*

I. INTRODUCTION

The importance of Business Continuity Management (BCM) for an organization's internal operations and external operational environment, such as its upstream and downstream supply chains, cannot be overstated. The importance of affected communities' participation in the healing process is emphasized by Coles & Buckle (2018) as they outline the various dimensions of resilience. Since 9/11, nations - especially those in the United States - have started to recognize the value of BCM for a country's resiliency. Hıdıroğlu (2020) regarded the 9/11 attacks on New York City as significant occasions with reference to BCM. Local Authorities are required by the United Kingdom (UK) government's Civil Contingencies Act of the year 2004 to offer businesses and nonprofit groups BCM guidance. This duty aims to ensure that local businesses can recover from setbacks more readily and that all category one responders have a business continuity management strategy in place. According to the logic behind this legislation, a robust business community contributes to the development of a resilient nation (International Organization for Standardization, 2019).

For instance, Burkina Faso, Côte d'Ivoire, Liberia, Nigeria, Rwanda, and South Africa all made efforts to ensure that public finance functions would continue through work redesign and workforce management, connectivity and digitalization, revised decision-making and internal controls, uninterrupted budget execution and procurement, and treasury operations. These make it possible to critically assess how finance ministries currently operate, as well as the considerations and changes being made in relation to employee productivity and well-being, digital capabilities and efficiencies, organizational processes, and functions essential to the COVID-19 response. Rkey & Tüfekci (2021) discovered that firms boosted their business performance as they had predicted and were unaffected by the pandemic in their examination of knowledge management and the value of business continuity during the 2019 pandemic.

In Kenya, a study on business continuity plans on Information Communication and Technology (ICT) and the service delivery of insurance companies was conducted by Kavonga (2017). He discovered that neglecting the business continuity plans on ICT was the root of many of the Insurance Companies' biggest problems. It was not seen as a vital strategic requirement by the Companies, which would have had a severe negative effect in the event of an occurrence. SMEs in Nairobi City have embraced BCM to strengthen their organizations' resilience, protect their shareholders, stop financial losses, and improve their companies' reputations in the case that risky scenarios arise. Although BCM methods are being used by security companies in Kenya, it is unclear how much of an impact they have on operational efficiency. Prior local studies concentrated on the financial performance, business continuity, and risk management of commercial banks. While Mathege (2019) conducted a study assessing the relationship between the disaster recovery and business continuity plans of class-A parastatals in the important government ministries, Ngare (2018) focused on the credit risk management strategies utilized by commercial banks.

The relationship between business continuity management practices and organizational performance has not been extensively studied empirically. Effective leadership and managerial abilities are essential for SMEs in developing nations to adopt and implement business continuity management systems. The COVID-19 epidemic significantly enhanced the need for management

and leadership skills. Leaders and managers have to present the best versions of themselves in order to effectively guide our SMEs and employees through this historic moment (Smith, 2020).

Prior local research mostly focused on commercial banks' financial performance, business continuity, and risk management. Achdiyat (2018) cited Ngare, who looked at the techniques used by commercial banks to control credit risk. Mathege (2021) also conducted a study evaluating the relationship between the disaster recovery and business continuity plans of class-A parastatals in the major government ministries. The relationship between business continuity management strategies and organizational success has not been the subject of a lot of empirical study especially embracing crisis leadership tactics. This study seeks to close a gap in the literature by analyzing how business continuity management techniques in the SMEs sector in Nairobi County, Kenya, affect organizational performance.The dearth of empirical study on crisis leadership presents a significant obstacle in this situation. Burnard, *et al.* (2018) pointed out that crisis leadership is one of the most crucial yet underappreciated aspects of crisis management. Similarly, Clampit, Lorenz, Gamble, and Lee (2021) bemoaned the lack of research identifying the knowledge, skills, or abilities required to guide an organization through these phases, despite previous research on crisis management having described how crises unfold across various phases. Therefore, the objective of this study was to determine the effect of crisis leadership on performance of SMEs during Covid-19 pandemic in Nairobi County, Kenya.

II. METHODOLOGY

Research Design

According to Huyler & McGill (2019), a research design is the framework or strategy for a study that is used as a roadmap for completing a study as well as a guide for collecting and evaluating data. The study design outlines the researcher's methodology for answering the research questions that the manager and researcher have decided upon together. It is crucial that the problem be accurately defined as a researchable question. The research design outlines the data collection methods (survey, observation, experimentation, and many more.), the types of data to be used, the sampling strategy, the protocols, the timelines, and the budget needed to complete the study. Based on the research question and objectives, there should be a clear justification for the study design. The study employed a descriptive and correlational research approach. This method is recommended because it allows a researcher to estimate the role of variables in predicting the outcome being measured. Because the study aimed to establish the effect of crisis leadership on the performance of SMEs during Covid 19 pandemic in Nairobi County, this is deemed relevant. A correlational design determines the degree to which two or more quantifiable variables have a relationship (Fa'bregues, Molina-Azorin, & Fetters, 2021). This correlational method is preferred because the study's goal is to look at the strength and nature of the relationships that exist between crisis leadership and the outcome, SME's performance. The study settled on a correlational research design because it relies on numerical data to examine relationships that existed between the variables and sought to express the degree of relationships in terms of regression coefficients and correlations.

Population

The target population of the study where the sample was drawn were the senior executives from the two hundred and thirty (230) registered SMEs comprising of different subsectors (health care and social assistance, accommodation and food service, retail trade, construction, and professional

scientific and technical services) within Nairobi County. A population is a collection of people about whom certain information must be obtained. As a result, the population includes all of the individuals and organizations that make up the research area (Ahuja, Banerjee, & Chaudhary, 2018). Table 1 shows the population distribution.

Table 1:
Population Distribution

SME's Industry	Number of Companies	Number of senior Managers	Percentage
Health care and social assistance	60	130	22.3%
Accommodation and food service	78	92	15.8%
Retail trade	102	123	21.1%
Construction	45	61	10.4%
Professional, scientific and technical services	80	178	30.5%
Total	**365**	**584**	**100.0%**

(Source: Public Procurement Oversight Authority (PPOA), 2022)

Sampling Design

According to Ahuja, Banerjee & Chaudhary (2018), sampling design indicates how cases are selected for observation and therefore charts how the sample is drawn. The sampling design includes the sampling frame, sampling technique and sample size.

Sampling frame

A sampling frame, according to Levitt *et al.* (2018), is a comprehensive catalog of every item in the population. After receiving their approval, 365 registered SMEs providing professional, scientific, and technical services, housing and food services, retail trade, and health care and social support operating in Nairobi County were used as the sampling frame for this study. A list like this hasn't been attached to the study because one of the obligations is to keep the names of everyone taking part in the study a secret. 584 senior managers from the 365 SMEs in Nairobi County made up the sampling frame.

Sampling technique

The study utilized a stratified and simple random sampling technique to pick sample units of senior managers from the 584 population. This sampling method is chosen because it ensures that all of the study units are adequately represented. From the population, 584 senior managers are chosen using a simple random selection procedure. According to Patton (2017), this technique was chosen because it allows the researcher to obtain replies from all the study units. Each organization's whole list of managers is allocated a sequential number. Based on the sample proportion and sample size established for each of the companies, a computer application generates corresponding random numbers. Managers whose sequential numbers corresponded to the computer-generated random numbers are the managers selected as the study participants.

Sampling size

Any empirical study must consider the sample size because it is from a sample that conclusions about the population are drawn (Creswell & Guetterman, 2021). A representative sample is one in which every member of the population has an equal and mutually exclusive chance of being

chosen. A sample is a group of respondents chosen to as fairly represent the entire population as possible (Ahuja, Banerjee, & Chaudhary, 2018). A sufficiently enough sample size is expected to result in statistically accurate quantitative estimates in quantitative research. Since a larger sample might produce more accurate results but also more expensive results, it is important to understand the statistics behind sample size selections in order to conduct meaningful research. A basic equation may accomplish a lot. No sample is flawless, and Huyler & McGill (2019) contend that the smaller the margin of error, the greater the sample's reliability. Simply put, a confidence level indicates how certain you can be in the accuracy of your answers, whereas the margin of error displays the range within which the survey results would fall if our confidence level stayed true. Standard surveys typically have 95% confidence intervals and 5% error margins (Smith, 2018).

The sample size within each stratum of the listed companies is determined for the purposes of this study using the Yamane (2001) formula. The Yamane (2001) formula was deemed suitable for use in this study due to two factors: first, its ease of use; and second, empirical evidence demonstrating this formula's widespread acceptance for calculating sample sizes in many contexts. It is obvious that no sampling circumstance can ensure total accuracy, and commonly accepted conventional precision errors include precision errors of 0.01, 0.05, and 0.1. For this study, the precision error was 0.05. A confidence level of 95% is deemed adequate for this study's purposes, since the population consisted of all the SMEs in Nairobi County, resulting in a margin of error for the sampling calculation of only 5%. In the domain of social sciences, a precision error of 0.05 has wide acceptance. The formula is as given here-below:

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

Where:

      n refers to the sample size
      N is the population
      E is the margin of error– 5%.

Because the sampling frame for this study is not homogeneous, stratified random sampling is first employed to split the population, and then Yamane (2001) algorithm is applied to get the sample size for the study. The 237 senior managers from SMEs in Nairobi County made up the target population. 237 respondents make up the sample size determined using the Yamane (2001) formula. Below are the calculations used to determine the sample size for this investigation.

$$n = [584]/(1+\{584\}(0.05^2)) = 237 \text{ respondents;}$$

On the population of 584 senior managers of SMEs in Nairobi County, the table below shows the sample size derived by providing a 95 percent level of confidence and a maximum variability (p) =.05.

Table 2:
Distribution of Sample Size

SME's Industry	Sample Size	Percentage
Health care and social assistance	53	22%
Accommodation and food service	37	16%
Retail trade	50	21%
Construction	25	11%
Professional, scientific and technical services	72	30%
Total	**237**	**100%**

Data Collection Methods

For the purpose of transforming it into a meaningful form through the rational process of data analysis, data collecting entails gathering raw information (Saunders *et al.*, 2016). Data might be primary or original - that is, data that the researcher collects directly from the source where the study problem arises - or secondary - that is, data that has already been acquired and is therefore already in print or another form. Levitt *et al.* (2018) define primary data as information that has been gathered especially for a research effort. Primary data has the benefit of being directly customized to your study requirements. There are several techniques that can be used to collect data, including use of questionnaires, interviews, surveys, focus group discussions, ethnographies, case study documents and reports.

This study utilized a quantitative approach to better understand how business continuity management practices among Kenyan SMEs helped them cope with the challenges of the COVID-19 pandemic. The study adopted the use of structured questionnaires to collect primary data from senior managers of registered SMEs within Nairobi County. Esser & Vliegenthart (2017) define a closed or structured questionnaire as a quantitative method of research which requires low levels of involvement by the researcher and enables reach out to high numbers of respondents (the individuals who answer the questions). Because it was simple to use, it could get data from a large number of respondents, and research has demonstrated that questionnaires are thought to be precise, effective, and efficient, the questionnaire was the tool of choice for gathering data (Hasan, 2018).

The questionnaire was the instrument to be used to gather information on the factors influencing performance in SMEs operating within Nairobi County. Questions were tailored to address the specific research questions of the study. The first part of the questionnaire focused on collection of biographical data of the respondents. The second part addressed the effect of crisis leadership on SMEs performance. Responses to questions was recorded on a 5-point Likert scale, levels being strong disagreement, disagreement, neutral, agreement and strong agreement.

Research Procedures

According to Ahuja, Banerjee & Chaudhary (2018), the research procedure is a succinct description of all the actions taken during the study in order to make it more understandable. These stages are given in sufficient detail and with enough clarity for another researcher to comprehend them and repeat the research after them. The steps in the research process include getting permission, conducting a pilot study, testing the instrument's validity and reliability, administering it, collecting data, preparing the data for analysis, and conducting both descriptive and inferential analyses.

Finally, discussions, recommendations, and conclusions are made based on the study's findings. At all occasions, ethical considerations were observed. The study sought for an introduction letter from USIU-A, and request for the necessary clearance from the National Commission for Science Technology and Innovations (NACOSTI) to conduct this research. The researcher also identified three reliable data collectors, trained them, and discussed the expectations and minimum acceptable quality standards that were observed. The researcher got in touch with the respondents of the expected survey through the respective human resource departments of each company. The researcher included a cover letter to the questionnaire which explains that the questionnaires would be used to collect data from the respondents, that the data was only to be used for academic purposes and that respondents' information would be kept confidential at all times. The researcher was clear that the exercise is optional meaning no respondent was coerced to participate in the survey.

3.6 Data Analysis Methods

In order to draw relevant conclusions and recommendations from the research's findings, data analysis involves looking over, examining, confirming, and modifying the data (Creswell & Guetterman, 2021). A questionnaire was used as the data collection tool for the study to gather quantitative data. To make data analysis easier, data was prepared, coded, and entered into the SPSS version 23 data analysis program. Measures of central tendency, such as frequency, percentile distributions, mean, and standard deviation, were computed using descriptive statistics. The diagnostic tests were run to see if the proposed statistical models could be successfully fitted to the data. By employing statistical analysis software to execute tests, inferential statistics were obtained, and the findings were then used to infer the relationships between the independent and dependent variables. The multiple linear regression models were used to examine the direction and connections of the variables. After obtaining the data from the field through questionnaires which had a Likert-scale, the data was prepared for analysis by editing as appropriate and considering any omitted responses. Each questionnaire was assigned a unique identifier representing each variable and the data was coded and categorized to facilitate the analyses. The study variables were entered with numeric expressions to create a platform for executing the different types of analysis. This also facilitated subsequent analysis and re-coding of data to create new variables. Each questionnaire was entered as a unique case with all the coded variables before proceeding to the next case.

According to Esser & Vliegenthart (2017), descriptive statistics are succinct descriptive coefficients that provide an overview of a specific data set, which may be a sample of the population or a representation of the complete population. To summarize the data and enable the drawing of relevant conclusions, descriptive statistics were required. Measures of central tendency (mean, standard deviations, and coefficient of variation), measures of dispersion, percentages, and frequencies are among the descriptive measurements used in this study. According to Esser & Vliegenthart (2017), descriptive statistics are succinct descriptive coefficients that provide an overview of a specific data set, which may be a sample of the population or a representation of the complete population. To summarize the data and enable the drawing of relevant conclusions, descriptive statistics were required. Measures of central tendency (mean, standard deviations, and coefficient of variation), measures of dispersion, percentages, and frequencies are among the descriptive measurements used in this study.

The multiple linear regressions equation took the form of:

$$Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \text{€}$$

Where:

Y = Performance of SMEs

X1 = Crisis Leadership

X2 = Strategic Leadership

X3 = Organizational Preparedness

€ = Error term

β0 = the constant term while the coefficient *βi*=1….3 measures the sensitivity of the dependent variable (Y) to unit changes in the predictor variables X1, X2, and X3. The error term, *€* is used to capture any variations in the model.

Ethical Considerations

Approval to conduct the study was sought from the supervisors and thereafter and to fulfil the mandatory ethical requirements, the proposal was submitted to the Institutional Review Board (IRB) for approval after which an application was made for a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) and thereafter, permission sought from the three telecommunication companies' leadership before commencement of the study. Respondents' consent form and Debrief letter were prepared to ensure voluntary participation by then respondents. Information about data protection and confidentiality and well as conflict of interest were covered in these documents. Pilot study was conducted to establish validity and reliability of the instrument used. The questionnaire was administered as an online survey on Google forms and in cases where this was not possible, respondents were interviewed, and the responses entered to Google forms for ease of data cleaning and analysis. It was essential to test the validity and reliability of the research instrument before deploying it for use in data collection by conducting a pilot study (Neuman, Simonovich, & Amer, 2019). The pilot study covered 10% of the calculated sample and enabled the researcher to correct and eliminate problems or errors encountered in completing or designing the questionnaire.

III. RESULTS

Response Rate and Demographics

Response Rate

The total number of participants who took part in a study is referred to as the response rate, and it is expressed as a percentage. The sample size for this study was 237 people from SMEs in Nairobi County, Kenya. The results in figure 1 represent the study's response rate. It is obvious from the findings that 84 percent of the respondents took part in the study, while 16 percent did not. As a result, the study concludes that the response rate accurately reflects the population.
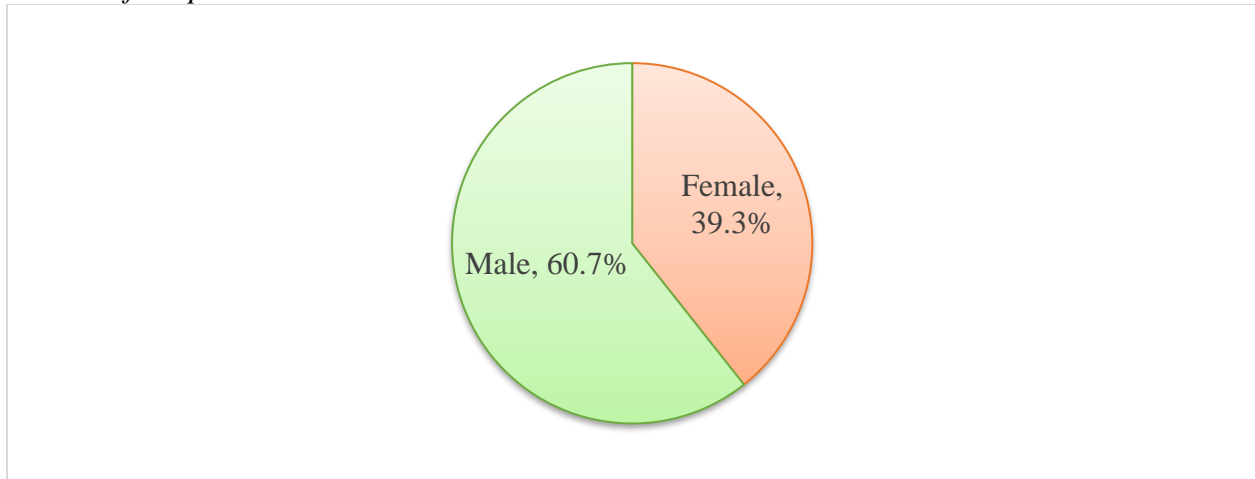
Figure 1:

Response Rate
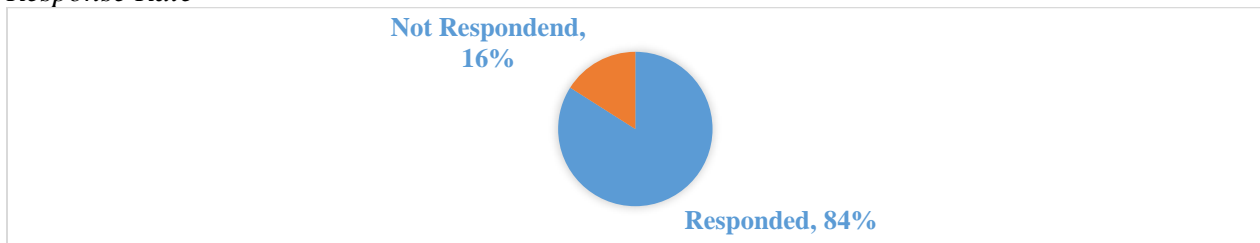
Gender of Respondents

To show the gender representation of the study, Figure 2 was utilized. It is clearly revealed that 60.7 percent of employees at SMs in Nairobi County are male while 39.3 percent are female. This, therefore, means that majority of the workers at SMEs in Nairobi County are men.
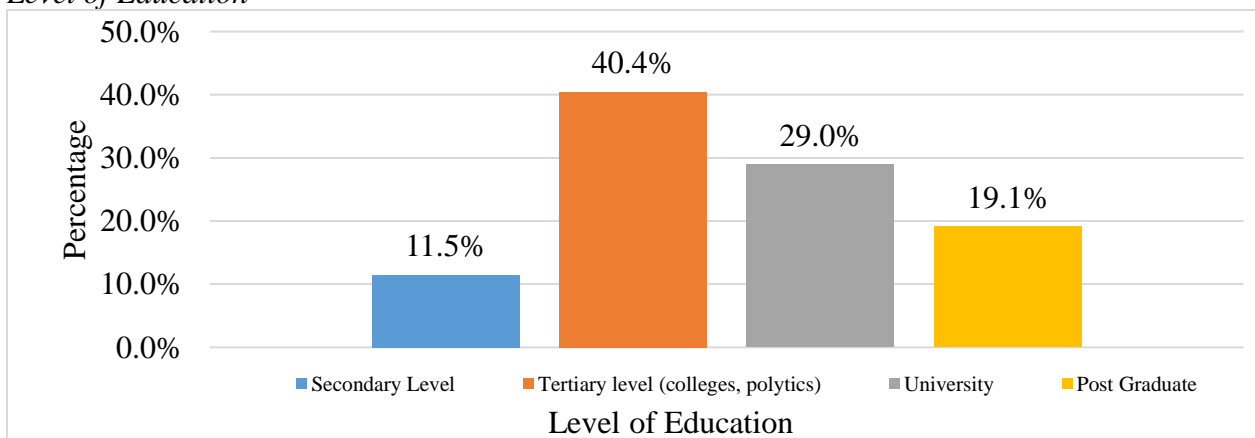
Figure 2:
Gender of Respondents

Level of Education

Figure 3 represents the level of education of the population working with SMEs in Nairobi County. The level of education was categorized into four levels as; secondary level of education, tertiary level of education, graduate level of education and post graduate level of education. From the figure, it was discovered that, 11.5 percent of the respondents had secondary level certificate, 40.4 percent had tertiary level diploma, 29 percent had graduate degree level of education, and 19.1 percent had post graduate degree level of education. This means that most of the employees in the SMEs in Nairobi County hold tertiary followed by graduate level of education which is an advantage to the organization since most of the employees are qualified to make informed decisions.
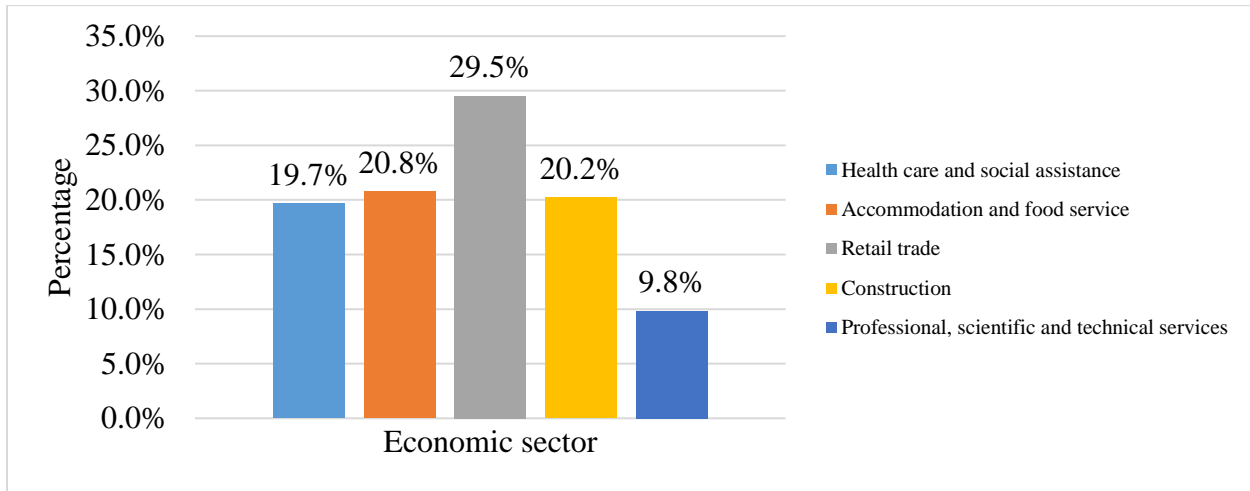
Figure 3:
Level of Education

Economic Sector

Figure 4 portrays the SMEs from different economic sector that took part in the study. From the figure, 9.8 percent of respondents came from professional, scientific, and technical services, 20.2 percent of the respondents came from the construction sector, 29.5 percent of the respondents came from the retail trade sector, 20.8 percent of the respondents came from accommodation and food service sector, and 19.7 percent of the respondents came from health care and social assistance sector. The study implies that 29.5 percent of the respondents, who were the majority, came from retail trade sector.

Figure 4:
Economic Sector

Work Experience

Figure 5 portrays the respondents' work experience with the SMEs in Nairobi County. From the figure, 39.3 percent of respondents have a working experience of one to three years, 30.6 percent of the respondents have between four to six years of working experience, 18 percent have seven to ten years of working experience, 20.2 percent of the respondents from the SMEs in Nairobi County have seven to ten years of working experience and 9.8 percent of respondents have over ten years of working experience. The study implies that 39.3 percent of the respondents, who were the majority, had a work experience of 0 to 3 years. This means that majority of the workers have moderate work experience and so the SMEs should engage their employees in trainings to enhance commitment for their companies.

Figure 5:
Work Experience
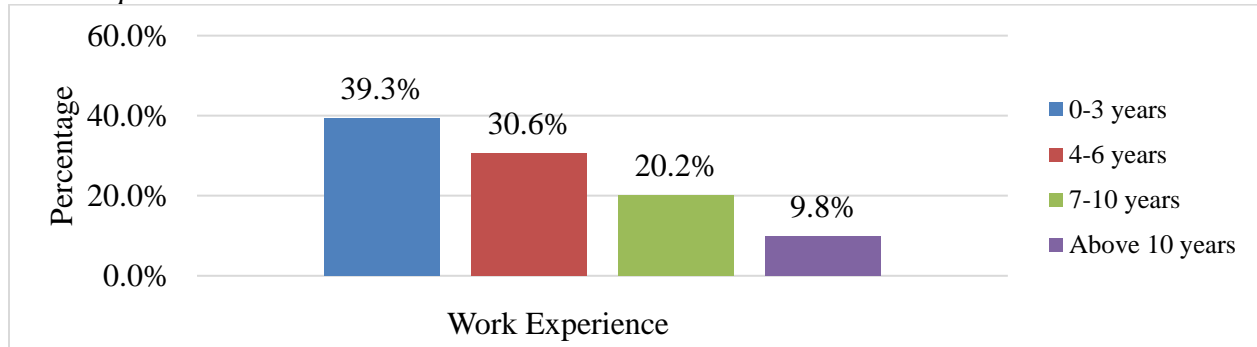
Crisis Leadership and Performance of SMEs

Descriptive statistics for crisis leadership

Table 3 shows that difficulties associated with crisis leadership have led to serious managerial problems in the crisis response as agreed to by 69.4% of the respondents, 11.5% were neutral, and 19.1% of the respondents disagreed (mean=3.52, standard deviation=1.099). Organizations can avert potentially devastating outcomes of a crisis in fostering effective leadership as agreed to by 70% of the respondents, 9.8% were neutral, and 20.2% disagreed (mean=3.69, standard deviation=1.020). Depending on the crisis situation, a leader's goal is to assist the organization in returning to productivity as agreed to by 59.6% of the respondents, 20.2% were neutral, and 20.2% disagreed (mean=3.6, standard deviation=1.275). During the Covid-19 pandemic, many leaders and managers had to change how they worked with their organizations and teams as agreed to by 50.8% of the respondents, 28.9% disagreed, and 20.2% were neutral (mean=3.43, standard deviation=1.356). Crisis management safeguards the reputation of the organization, which can have a long-term impact on sales and profits as agreed by 79.8% of the respondents, 10.3% disagreed, and 9.8% were neutral (mean=3.79, standard deviation=0.778).

A crisis manager collects and analyze data to make a decision as agreed to by 70% of the respondents, 19.7% disagreed and 10.4% were neutral (mean=3.8, standard deviation=1.077). Crisis leadership has enhanced the business continuity by reducing crisis in a critical situation as agreed to by 59% of the respondents, 31.2% disagreed, and 9.8% were neutral (mean=3.37, standard deviation=1.513). Taking leadership role during the crisis needs amalgamation of required skills, knowledge, and abilities as agreed to by 79.8% of the respondents, 10.4% were neutral, and 9.8% disagreed (mean=3.81, standard deviation=0.757). During a crisis, one of the roles of a leader is to create and sustain the organization's credibility and trust among stakeholders as agreed to by 70.5% of the respondents, 19.7% disagreed, and 9.8% were neutral (mean=3.60, standard deviation=0.907). Crisis leadership required management to adapt rapidly as the situation progressed, including managing teams which were working remotely as agreed to by 70% of the respondents, 19.1% disagreed, and 10.9% were neutral (mean=3.52, standard deviation=1.104). The study implies that "taking leadership role during the crisis needs amalgamation of required skills, knowledge, and abilities" is very critical in crisis leadership as the statement showed highest mean (3.81) and lowest standard deviation (0.757).

Table 3:

Crisis Leadership and Performance

	SD	D	N	A	SA	Mean	Std. Deviation
Difficulties associated with crisis leadership have led to serious managerial problems in the crisis response	8.7%	10.4%	11.5%	58.5%	10.9%	3.52	1.099
Organizations can avert potentially devastating outcomes of a crisis in fostering effective leadership	0.5%	19.7%	9.8%	50.3%	19.7%	3.69	1.020
Depending on the crisis situation, a leader's goal is to assist the organization in returning to productivity	9.3%	10.9%	20.2%	29.5%	30.1%	3.60	1.275
During the Covid-19 pandemic, many leaders and managers had to change how they worked with their organizations and teams	9.8%	19.1%	20.2%	20.2%	30.6%	3.43	1.356
Crisis management safeguards the reputation of the organization, which can have a long-term impact on sales and profits	0.5%	9.8%	9.8%	69.4%	10.4%	3.79	.778
A crisis manager collects and analyze data to make a decision	0.0%	19.7%	10.4%	39.9%	30.1%	3.80	1.077
Crisis leadership has enhanced the business continuity by reducing crisis in a critical situation	20.8%	10.4%	9.8%	29.5%	29.5%	3.37	1.513
Taking leadership role during the crisis needs amalgamation of required skills, knowledge, and abilities	0.0%	9.8%	10.4%	68.9%	10.9%	3.81	.757
During a crisis, one of the roles of a leader is to create and sustain the organization's credibility and trust among stakeholders	0.0%	19.7%	9.8%	61.2%	9.3%	3.60	.907
Crisis leadership required management to adapt rapidly as the situation progressed, including managing teams which were working remotely	9.3%	9.8%	10.9%	59.6%	10.4%	3.52	1.104

Correlation Analysis for Crisis Leadership and Performance of SMEs

Correlation analysis was used to assess the significance of crisis leadership to SMEs performance and study whether a linear relationship existed between the variables. Table 4 indicates that crisis leadership and SMEs performance were linearly related, and crisis leadership was significant to performance of SMEs in Nairobi County (*r* (183) = 0.750, p<0.05). The study results imply that crisis leadership is very critical in enhancing performance of SMEs.

Table 4:

Correlation for Crisis Leadership and Performance of SMEs

		Crisis Leadership	Performance of SMEs
Crisis Leadership	Pearson Correlation	1	.750**
	Sig. (2-tailed)		.000
	N	183	183
Performance of SMEs	Pearson Correlation	.750**	1
	Sig. (2-tailed)	.000	
	N	183	183

**. Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis for Crisis Leadership and Performance

Table 5 depicts a model summary for crisis leadership and performance of SMEs. The findings in the table shows that crisis leadership accounts for 56.2% of the firm performance variance. The remaining 43.8% accounts for factors not included in this model. This means that crisis leadership factors have a significant effect on performance of SMEs.

Table 5:
Model Summary for Crisis Leadership and Performance

		Model Summary		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.750ᵃ	.562	.560	.106

a. Predictors: (Constant), Crisis Leadership
b.

ANOVA Between Crisis Leadership and SMEs Performance

The ANOVA between crisis leadership and SMEs performance has been presented in Table 6. From the findings of the study, it is indicated that there existed a significant linear relationship variance between crisis leadership and SMEs performance ($F_{(1,181)} = 232.183$, $p < .05$). The implication of the study finding is that the regression model is significantly fit to test the relationship between crisis leadership and performance of SMEs.

Table 6:
ANNOVA for Crisis Leadership and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.606	1	2.606	232.183	.000ᵇ
	Residual	2.032	181	.011		
	Total	4.638	182			

a. Dependent Variable: Performance of SMEs
b. Predictors: (Constant), Crisis Leadership

Regression Coefficients for Crisis Leadership and SMEs Performance

The regression coefficients between crisis leadership and SMEs performance has been presented in Table 7. The findings of the study indicate that the intercept between crisis leadership and SMEs performance becomes better by $\beta = 0.337$, $p < 0.01$. This implies that when crisis leadership in the SMEs is effectively demonstrated, the SMEs performance would improve by 33.7%.

Table 7:
Regression between Crisis Leadership and Performance

Model		Unstandardized Coefficients		Std. Error	Standardized Coefficients Beta		t	Sig.
1	(Constant)	2.359		.080		29.372		.000
	Crisis Leadership	.337		.022	.750	15.238		.000

a. Dependent Variable: Performance of SMEs

IV. DISCUSSION

Crisis Leadership and Performance of SMEs

The study investigated how crisis leadership affected the performance of the SMEs sector hence showing a significant correlation ($r = 0.750$, $p < 0.01$). According to the study, SMEs in Nairobi County employed crisis leadership to boost performance. The study's findings support those of Bacon *et al.* (2021), who proposed that companies might prevent potentially disastrous crisis outcomes by choosing and developing crisis leaders using crisis simulations created from a Behavioral Crisis Analysis (BCA) showing a positive correlation ($r = 0.145$, $p < 0.05$). The results of this study concur with those of Richardson (2020), who found that during the Covid-19 pandemic, many leaders and managers had to alter the way they interacted with their teams and organizations at an extremely trying time. For many, very little guidance was available and they had to adapt rapidly as the situation progressed, including managing teams which were working remotely. The results revealed that leadership style positively and significantly affected the implementation of strategic plans which end up affecting firm performance. Strong average statistical means of between 4.2 and 5 were established for parameters of crisis leadership including high levels of supervision, managers being in control of business operations, managers not consulting employees on issues for decision making and managers using punitive measures on employees.

According to the study, assuming a leadership position during a crisis requires a combination of the necessary abilities, knowledge, and skills. The study's findings are consistent with those of Lucero *et al.* (2021), who found that taking on leadership roles during an emergency or managing a crisis situation requires a combination of skills, knowledge, and abilities. For instance, in a study by Marshall and Rossman (2018) of bank managers and their subordinates in Slovakia where the most dominant style in use by leaders of the organization was crisis leadership, 78% of the sales clerks who made up the study respondents stated that they would complete a far greater percentages of projects within allocated budgets if their managers had treated them better. Better preparedness and catastrophe management plans will be the result of this. The results of the present study are consistent with those of Wooten and James (2019), who discovered that in addition to the crisis manager's role-playing during the crisis, senior management staff members are also required to act responsibly.

The results show that crisis management protects an organization's reputation, which may have a long-term effect on sales and profitability. The study's conclusions concur with those of O'Rourke (2018), who stated that a leader's objective is to help the organization resume productivity depending on the crisis situation. In general, it's critical to preserve and maintain the company's reputation, brand, and market worth. The results are consistent with those of Castillo and Trinh (2018), who found that one of HR's strategic tasks is to concentrate on leadership attributes including strategic thinking, communication, empowerment, trust, and integrity when taking succession planning for crisis management into consideration. A study conducted by Fa'bregues *et al.* (2021) sought to examine the impact of leadership styles on team cohesiveness across different cultures and societal settings and performance. Data was collected from 29,868 managers and 138,270 corresponding team members in 80 countries and multilevel analysis conducted to test the hypotheses of the study. The findings revealed that crisis leadership was negatively correlated to team cohesiveness ($\gamma = -0.46$, *p< .05*), as the quality of production by the teams was adversely affected when leaders used this autocratic leadership style.

The results show that challenges with crisis leadership have resulted in significant managerial issues with the crisis response. The results of the study are reflected in Muhammad and Naved's (2020) conclusions, which showed that management of the organizations that are not aware of such managerial issues do not have the necessary change management leadership to overcome such crisis difficulties or, more importantly, did not identify the external and internal barriers to the planning. The findings concur with those of a study by Levitt *et al.* (2018) who examined the impact of leadership styles of school administrators on teacher effectiveness and school performance and found that use of a supportive leadership style positively and significantly affected teacher effectiveness (β=0.509, *p< .05*) and recommended that leaders be friendly with their subordinates, praise and encourage them as these behaviors by leaders helped employees feel better about themselves, and have increased levels of self-confidence which resulted in them delivering better performance.

The results show that organizations can prevent potentially disastrous crisis outcomes by supporting strong leadership. These results are in line with those of Mohamed (2018), who found that a crisis management must follow certain criteria, like information gathering and analysis, in order to make any decision. The study agrees with the World Bank assessment (World Economic Report, 2021), that managers will benefit from experience when dealing with the crisis in a methodical way. The manager will then be able to approach the matter with confidence and more initiative.

According to the study, managing teams that were working remotely required management to quickly react as the scenario changed. The results of this study confirm Wooten and James' (2019) assertion that successful plans and strategies for handling future crises in a better planned manner across all phases of crisis have emerged from past experience in crisis management. The study's findings concur with those of Wong (2021), who found that crisis leadership improved business continuity and increased firm prosperity by minimizing crises in emergency situations.

The findings of the study further agreed with the findings of Fetters (2021) who found that use of a crisis leadership was positively related to employees engaging in creativity and innovation that help during crisis (β=0.625, *p< .01*). The assertion was that leaders must not limit their role to work duties alone, but needed to extend it with supportive behaviors such as demonstrating concern for individuals as this was how leaders could remove any fear or anxiety employees had and foster a working environment where creativity could be encouraged. Simmons and Sower (2014) had also expressed similar viewpoints and had affirmed that supportive leaders played a pivotal role in producing a risk tolerant climate where staff did not experience fear and felt comfortable going beyond the basic requirements of their job to use creativity in their work hence showing a strong relation (rho $(305) = 0.592, p <.05$). This view was further supported by De Jong and Den Hartog (2013) who stated that leaders who gave power and freedom to employees and showed concern for their welfare were likely to bring out new and fresh thoughts in the minds of the employees, have them embark on discovery of information and extract creative and innovative ideas. The findings of this study also agreed with the findings of Shin and Zhou (2013) who demonstrated a positive relationship between supportive leadership and individual creativity by employees ($\beta = 0.506, p <.05$).

Conclusion

The results show that most SMEs can prevent potentially disastrous crisis outcomes by supporting competent leadership, and crisis management protects the organization's reputation, which can have a long-term effect on sales and earnings. The study's findings led to the conclusion that crisis leadership improved company continuity by lowering crises in urgent situations and that leaders who assume leadership roles during crises need to combine the necessary skills, knowledge, and abilities. Crisis management has improved business continuity by preventing crises in urgent circumstances

Recommendations

According to the report, the executive and management of the SMEs sector in Nairobi County should make sure that effective crisis leadership is developed and instilled in their staff as guiding principles. SMEs should develop strong leadership to improve performance in order to prevent potentially disastrous crisis-related outcomes. As they must combine the necessary skills, knowledge, and talents, managers are required to take the lead throughout the crisis. The paper recommends that SMEs create organizational guidelines to streamline the crisis management process within each of their operational domains. As a result, a high level of institutionalization will be easier to achieve during crisis management.

Competing interests/conflict of interest

We have no actual, potential or perceived conflict of interest in relation to this document and our role as authors of this document is majorly to provide dissemination of scholarly materials to researchers as we uphold high degree of objectivity and integrity.

V. REFERENCES

Achdiyat, D. G. (2018). Relationship between leadership of the board with the effectiveness of farmers group. *International Journal of Academic Research in Business and Social Sciences, 8*(7), 573–582. Retrieved from https:// doi.org/10.6007/IJARBSS/v8-i7/4400

Ahuja, K. K., Banerjee, D., & Chaudhary, K. (2018). Statistics without tears: Populations and samples. *Industrial Psychiatry Journal, 19*(1), 60-65.

Bacon, L., MacKinnon, L. M., Flippoupolitis, A., & Kananda, D. (2022). Developing a public online learning environment for crisis awareness, preparation, and response. *International Journal of Information Systems for Crisis Response and Management (IJISCRAM), 9*(2), 18-36.

Burnard, K. J., Bhamra, R. S., & Tsinopoulos, C. (2018). Building organizational resilience: Four configurations. *IEEE Transactions on Engineering Management, 65*(3), 351–362.

Castillo, E. A., & Trinh, M. P. (2018). In search of missing time: A review of the study of time in leadership research. *The Leadership Quarterly, 29*(1), 165-178.

Clampit, J. A. Lorenz, M. P. Gamble, J. E. & Lee, J. (2021). "Performance stability among small and medium-sized enterprises during COVID-19: a test of the efficacy of dynamic capabilities", doi:10.1177/02662426211033270,026624262110332.

Creswell, J. W., & Guetterman, T. C. (2021). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (6 ed.). Pearson.

Esser, F., & Vliegenthart, R. (2017). *Comparative Research Methods, The International Encyclopedia of Research Methods.* John Willey & Sons Inc. doi:10.1002/9781118901731.iecrm0035

Hıdıroğlu, D. (2020). Strategic leadership: Best practical leadership style to business strategies in the period of Covid-19 Epidemic. *Turkish Studies - Social*, *15*(4), 1945-1955. https://dx.doi.org/10.29228/TurkishStudies.43445

Huyler, D., & McGill, C. M. (2019). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, by John Creswell and J. David Creswell. Thousand Oaks, CA: Sage Publication. *New Horizons in Adult Education and Human Resource Development, 31*(3), 75-77.

International Organization for Standardization. (2019). *Security and resilience – Business continuity management systems – Requirements (ISO 22301).* Retrieved August 28, 2021, from https://www.iso.org/obp/ ui#iso:pub:PUB100442

Levitt, H. M., Bamberger, M., Creswell, J. W., Frost, D. M., Josselson, R., & Suarez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA publications and communications board task force report. *American Psychologist, 73*(1), 26-46. Retrieved from http://doi.org/10.1037/amp0000151

Lucero, M., Tan Teng Kwang, A., & Pang, A. (2021). Crisis leadership: when should the CEO step up? *Corporate Communications: An International Journal, 14*(3), 234–248.

Mohamed, N. A., Gamal, S. A., & Abuelhassan, E. A. (2018). Investigating the Impact of Leadership and Business Continuity Management on Organizational Crisis Performance. *International Busisness Management, 13*(7), 266-278.

Muhammad, S., & Naved, S. (2020). Impact Of crisis Awareness on Organizational Performance: A Strategic Leadership Perspective in SME's. *Review of Management Sciences, 2*(1), 1-16.

O'Rourke, M. (2018). Protecting your reputation. *Risk Management, 51*(1), 14-18.

Richardson, L. (2020). *Adapted from Liz Richardson, The Bridge, 7 October 2020.*

Smith, J., Jayaram, J., Ponsignon, F., & Wolter, J. (2018). "Service recovery system Antecedents a contingency theory investigation". *Journal of Service Management , 30* (2), 276-300.

Smith, R. (2020). *How CEOs Can Support Employee Mental Health in a Crisis,.* Harvard Business Review.

Wong, J., & Goh, M. H. (2021). Business continuity management implementation for small and medium-sized enterprises. *APEC Summit on Promoting SME Business Continuity Planning "Best Practices of SMEs' Employment of Business Continuity Planning.* Retrieved from www.continuitycentral.com

Wooten, L. P., & James, E. H. (2019). Linking crisis management and leadership competencies: The role of human resource development. *Advances in Developing Human Resources, 10*(3), 352–379.

World Bank (2021). "Kenya economic monitor: building momentum for reform".