INNOVATIVE STRUCTURE AND PERFORMANCE OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES IN KENYA

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ABSTRACT

Successful organizations of the future are those who will develop extraordinary skills to innovate in the areas of strategy development and organizational design. Innovation, whether related to products, process, organizational methods, or marketing, is a complex, multidisciplinary activity that involves several areas of a single firm, its clients, and its suppliers (Tafti, Abdolvand, & Harandi, 2019). The study sought to examine the role of innovative structure on performance of SMEs in Kenya. The study applied Organizational Control Theory. The population of the study was manufacturing SMEs in Nairobi City County, Kenya since Nairobi is a cosmopolitan that is home to several manufacturing SMEs. Respondents' population was 538 manufacturing SMEs in Nairobi City County, Kenya. The top managers were targeted because strategic management issues are mostly handled by top managers of organizations. Stratified sampling was used to pick the sample. The population was stratified based on the sectors. KMA has divided the manufacturing into sectors. The philosophy that guided the research is positivism philosophy. The study used cross-sectional survey design to establish the role of innovation strategy implementation on competitive performance of manufacturing SMEs in Kenya. The study also used both qualitative and quantitative mixed methods. In this research cross sectional survey design was employed. This study used a questionnaire to collect data. A pilot study was conducted to ascertain the research instruments' validity and reliability. Data was analyzed using the Statistical Package for Social Sciences (SPSS) version 25 software. Qualitative data collected was analyzed using thematic analysis and presented in prose form. Quantitative data was analyzed using descriptive statistics and presented in tables and figures. The study also computed correlation and regression analysis to test the relationship between study variables and test the research hypothesis. The study concludes that Innovative structure has a positive and significant effect on the performance of SMEs in Kenya. The study revealed that centralization, integration, and decision-making influence the performance of SMEs in Kenya. This implies that improvement in innovative structure (centralization, integration, and decision-making) would improve the performance of SMEs in Kenya. This study recommends that the management of manufacturing SMEs in Kenya should formulate and implement effective strategies of investing in innovative strategies to increase the SMEs' competitiveness and improve their performance.

Key Words: Innovative Structure, Performance of SMEs in Kenya, Organizational Control Theory

Background of the Study

In the fast-changing business world of today, innovation has become the backbone of organizations (Kamau, Senaji, Eng, & Nzioki, 2019). The nature of global economic growth has been changed by the speed of innovation, which has been made possible by rapidly evolving technology, shorter product lifecycles and a higher rate of new product development (Abu Amuna, Abu-Naser, Al Shobaki, & Abu Mostafa, 2019). Innovation is one of the key features of entrepreneurial behavior that has been significantly linked to SMEs (Alrowwad & Abualoush, 2020).

Innovation is the process that connects new ideas to new processes and products (Jiménez-Jiménez & Sanz-Valle, 2011). Organizations innovate to improve efficiency and productivity, increase market share and profitability and to generate economic wealth for their owners (Baierle, Benitez, Nara, Schaefer, & Sellitto, 2020). According to Chege, Wang, and Suntu (2020), organizations introduce innovations to adapt to environmental change and achieve strategic intents for maintaining and improving performance.

Innovation is a comprehensive approach to renewing and enlarging firm's range of products, services, and markets by adopting new methods or changing existing methods (Shqipe, Gadaf, & Veland, 2013). It involves a radical change in terms of speeding up idea generation, and developing new products, services, and industrial processes (Pisano, 2015). Alrowwad and Abualoush (2020) contends that innovation involves generating ideas and bringing them to life. Technological facilities, trained workforce and management support for innovation are important drivers of innovative activities. High technical innovation performance requires flexibility and is a result of an organization successfully adapting its processes and products to changes in the environment (Abu Baker & Ahmad, 2010). The development of modern technologies and new products requires that organizations engage in practices that foster creativity, flexibility, and experimentation (Das & Joshi, 2011).

According to Hilman and Kaliappen (2015), organizational innovation are organized into three dimensions of environmental (external, contextual), organizational (structure, culture), and managerial (leadership, human capital). Innovation is widely acknowledged as a core factor to increased productivity and competitiveness. It is one of the key practices underpinning the survival and competitiveness of firms in a competitive globalized environment (Sheu, 2017; Kiraka, Kobia & Katwalo, 2020; Lin & Chen, 2020). Within the business context, innovation is often considered the basis of strategic change through which firms can gain and sustain competitive advantage (Cui, Ye, Teo, & Li, 2015).

The ability to implement strategies successfully is important to any organization (Tan, 2004). The innovation strategy implementation process determines whether an organization excels, survives or dies (Barnat, 2012). An essential tool of firm strategies, innovation can enable firms to differentiate their products, improve efficiency, penetrate new markets and raise market share to establish competitiveness (Blind, Pohlisch, & Rainville, 2020). Even the best formulated strategy cannot have an impact on an organization, if it is not effectively implemented (Candy & Gordon, 2011). A carefully prepared and solid strategic plan must be coupled with proper strategy implementation for it to have an impact on the organization (Cui et al., 2015).

Small and medium enterprises (SMEs) in Kenya represent a vital part of the economy, being the source of various economic contributions through the generation of income via exporting, providing new job opportunities, introducing innovations, stimulating competition, and engine for employment.

In Kenya, SMEs cut across all sectors of the economy, and are a major source of employment, income and is key in poverty reduction (GOK, 2020). Ninety eight percent (98 %) of all businesses in the country are SMEs which contribute about 25 % of GDP and 50% of formal employment giving an employment growth rate of 12-14% per annum (MOIED, 2020; KNBS, 2019). The sector has over the years been recognized for its role in the provision of goods and services, in stirring competition, fostering innovation, generating employment and poverty alleviation (KAM, 2021).

Innovation is linked to the growth and performance of small and medium enterprises globally due the firm competitiveness that results from innovation (Alrowwad & Abualoush, 2020). The extent to which innovation has been implemented among SMEs vary across the globe. A 2017 OECD survey on the level of innovation among SMEs in Organization for Economic Co-operation and Development (OECD) countries indicated that on average, SMEs were less innovative than large companies. For example, across OECD countries, the median value in the national SME share of business R&D is 35%. Moreover, small firms (10-49 employees) are approximately only half as likely as large firms to have a business website allowing for online ordering and only one-third as likely as large firms to be using Enterprise Resource Planning (ERP), a software platform that integrates core business processes in real-time (OECD, 2017). A study done by Kenya Association of Manufacturers (KAM, 2020) indicates that the presence of innovations, inventions and modifications are signs of growth and performance in SMEs.

Statement of the Problem

Innovative high-technology SMEs have become a major influencing factor in the success of any modern economy, and they increasingly compete in the globalized world with limited resources (Abu Amuna et al., 2019). Innovation helps the company to deal with the turbulence of external environment and, therefore, is one of the key drivers of long-term success in business, particularly in dynamic markets (Vushe, 2021). Previous research on SMEs at firm level has always taken into consideration the constraints of the resources that an SME faces and the implications of this on their performance and business growth (Sahut & Peris-Ortiz, 2014).

The Kenya Vision 2030's economic pillar identifies the manufacturing sector as one of the key priority sectors for achieving the country's national development agenda and raising the country's growth rate (Kenyan Industrial SMEs Cluster Mapping Report, 2021). The manufacturing sector is important as it accounted for 7.7% of gross domestic product (GDP) in 2018 (KAM, 2020). In 2019, the Kenya Association of Manufacturers launched the Manufacturing Priority Agenda (MPA), 2019 which is part of the Association's advocacy agenda to support Kenya realize its manufacturing goals under the Big Four Agenda. It is anchored on 5 main pillars, namely: competitiveness, enhancing market access, institutional framework, government driven SME development, and securing the future of the manufacturing industry (KAM, 2022).

Innovativeness in SMEs reflects a tendency to support innovative ideas, novelty, experimentation, and creative processes, thereby departing from established practices and technologies (Abouzeedan, 2011). The importance of a small firms' innovation strategy is that innovation is the single most important factor in predicting performance in SMEs (Al Mamun et al., 2019). A 2017 OECD survey on the level of innovation among SMEs in Organization for Economic Co-operation and Development (OECD) countries indicated that on average, SMEs were less innovative than large companies. For example, across OECD countries, the median value in the national SME share of business R&D is 35%.

Moreover, SMEs are only half as likely as large firms to have a business website allowing for online ordering and only one-third as likely as large firms to be using Enterprise Resource Planning (ERP), a software platform that integrates core business processes in real-time (OECD, 2017). Even though manufacturing SMEs have adopted innovation, studies show that they have not fully benefited from it. For example, the World Bank Kenya Economic Outlook report (2020), show that there is growth stagnation in the sector and suggested that it was partly due to low overall productivity and large efficiency differences in firms, resulting in uncompetitive companies staying in business.

Most of the empirical studies on the relation between innovation and performance provide evidence that this relation is positive (Ho et al., 2018; Kadosca, 2016; Kiraka, 2019; Mensah & Acquah, 2020). However, as Simpson et al. (2016), point out, innovation is an expensive and risky activity, with positive outcomes on firm performances but also with negative outcomes, such as increased exposure to market risk, increased costs, employee dissatisfaction or unwarranted changes. Considering some of these studies and taking into consideration that innovation strategy implementation of firms keeps changing, studies and reports have not addressed the innovative structure and how it affects the performance of manufacturing SMEs in Kenya.

General Objective
To examine the relationship between innovative structure and performance of manufacturing SMEs in Kenya
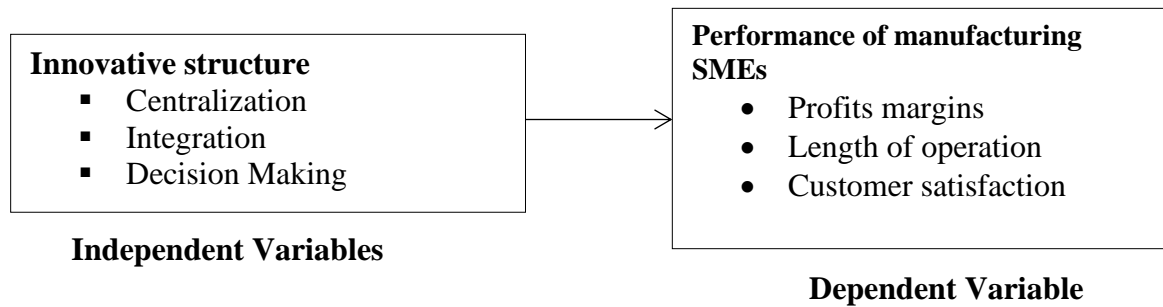
Theoretical Framework
Organizational Control Theory
Organizational control theory was developed by Sullivan Jeremiah in 1998. The theory argues that organisational strategic innovation involves learning and knowledge accumulation of a trial-and-error process rooted in individual and collective experimentation. Collective learning is an organization's capacity to identify and capture new knowledge. The theory states that the nature of the innovation process will push firms to either adapt strategies to establish and develop such a process (innovation strategies) or rather adapt alternative strategies (adaptation strategies) that ensure a firm's survival without the uncertainty attached to the innovation process (Liu, Borman, & Gao, 2014).

The organizational control theory adopts an evolutionary approach to the analysis of innovative processes. Successful innovation can build in firms "retained" capabilities that will allow the firm to survive in the future without innovating. The organizational control theory grasps the complexity of organizations, their environments, and the innovation process. For this reason, in such a perspective where uncertainty reigns, it is important to recognize that decision making is not a linear, synchronic process. Far from it, within firms pursuing innovation strategies, decision making is more an art of muddling through where every knowledge holder has to contribute (Frey, Homberg, & Osterloh, 2013). The theory takes into perspective the role that organizational structures and strategies can innovatively evolve through knowledge accumulation to enhance performance of SMEs.

Conceptual Framework

Innovative structure
- Centralization
- Integration
- Decision Making

Performance of manufacturing SMEs
- Profits margins
- Length of operation
- Customer satisfaction

Independent Variables

Dependent Variable

Innovative Structure

Innovation can be thought of as new structures and management processes, new policies, new plans and programs, new processes of production and new products and services produced in an enterprise (Vaccaro et al., 2012). In the OECD Oslo Manuel (2021), innovation has been categorized into four dimensions: product, process, marketing, and management (or organizational) innovation. In most studies, however, innovations are considered in the broader terms of technological and management innovations (Kirchner, Smith, Powell, Waltz, & Proctor, 2020).

An organizational structure shows how power and responsibility are dedicated, and the procedures of work are implemented among organizational workers (Al Mamun et al., 2019). Puranam et al. (2014), proposed task division, task allocation, reward distribution and information provision as the four universal problems of organizing. The organizational structure defines how tasks are dedicated, who prepares the reports to whom, and the ultimate coordinating process and forms of interaction which should be precisely followed (Gunday, Ulusoy, Kilic, & Alpkan, 2011). Cegarra-Navarro, Reverte, Gómez-Melero, and Wensley (2016) provided solid evidence indicating a strong relationship between performance and structure: thus, an efficient organizational structure positively influences both economic and non-economic performance

Empirical Review
Innovative Structure and Competitive Performance of SMEs

The formation of organizational structures is a critical element for companies in ensuring strategic decision-making, the resolution of disagreements, and the active and effective coordination of the process of innovation (Olson et al., 2015). Researchers of innovation and organizational theorists have consistently asserted that the structure of an organization is an essential factor in the function of innovation, serving to benefit or impede it accordingly (Aiken and Hage 2011; Kim, 2010; Damanpour, 2017; Subramanian and Nilakanta 2016).

Innovation is considered a key factor in the establishment of new business and industry, economic development, firm performance and competitive edge, and in the efficient management of public departments and businesses (Alrowwad & Abualoush, 2020). Therefore, maintaining an environment in which innovation can occur is an essential component of a business, and thus a worthy area of academic study (Wang, 2019).

Organizational decision makers have the power to influence innovation within their company through their direct control of the structure of an organization (Blind et al., 2020). The dispersion of control and responsibility within an organization are determined by its organizational structure, as are the grouping, coordination, and division of tasks amongst departments and

employees in an organization (Baierle et al., 2020). Scholarly knowledge on the subject of organizational structure proposes that it has several sub-dimensions.

Lopes, Ferreira, and Farinha (2019) suggested that variables in organizational structure include decentralization, formalization, professionalism, complexity and scheduled and unscheduled communication. In an investigation into the role played by organizational structure in innovation in logistics, Zhao, Tsai, and Wang (2019) included specialization and decentralization; and makes the addition of 'integration' to the list of subcategories. An investigation on the topic of organizational structure and its link to product customization by Damanpour and Wischnevsky (2006) utilized the sub-dimensions of operations decentralization, focus on formal control, spans of control and layers.

Another study by Esemu and Wood (2014) focused on the manner in which plant performance and time-based manufacturing were affected by organizational structure, and the following dimensions were included: the manner in which formalization occurred, the number of hierarchical levels in the organization, the point where the power to make decisions lay, the degree of horizontal integration and the communication levels within the organization. The most successful companies when it comes to product and process innovation are those whose organizational structures foster the development of knowledge through formal research and development processes and the development of knowledge based on experience, practice, and interaction between employees, clients, and suppliers (Massa & Tucci, 2013).

Innovation can be thought of as new structures and management processes, new policies, new plans and programs, new processes of production and new products and services produced in an enterprise (Vaccaro et al., 2012). In the OECD Oslo Manuel (2021), innovation has been categorized into four dimensions: product, process, marketing, and management (or organizational) innovation. In most studies, however, innovations are considered in the broader terms of technological and management innovations (Kirchner et al., 2020). Another method of classifying innovation is based on the factor of innovation radicalness, which makes the distinction between radical innovation and incremental innovation (Chege et al., 2020). In more recent times, these distinctions have sometimes been named as exploitative innovation and exploratory innovation (Ho, Nguyen, Adhikari, Miles, & Bonney, 2018).

More flexible and agile structures are required, structures that allow interaction and communication between employees, without rigidly defined functional areas, and with functional integration instead. This "adhocratic" or organic structure would permit the development of knowledge based on practical experience and interaction, consequently leveraging the organization's innovative capacity (Tafti et al., 2019). This organizational configuration would also be the most readily able to handle events, as defined by M. Chen et al. (2018)– that is, to deal with unforeseen actions and chance occurrences, which are characteristic of innovative environments. Although there is no established organizational structure paradigm for such environments, several authors have discussed organizational characteristics of companies operating in innovative environments (Vushe, 2021).

RESEARCH METHODOLOGY

Research Philosophy

The study used a cross-sectional survey design to establish the role of innovation strategy implementation on the competitive performance of manufacturing SMEs in Kenya. The study also used both qualitative and quantitative mixed methods.

Research Design

In this research cross-sectional survey design was employed. It involves one short assortment of data over days and nights, weeks, or months to resolve a research question (Sekeran & Roger, 2010). Cross-sectional survey design provides a good picture of the trends and is useful for documenting existing study populace conditions, characteristics, and their view at a specific point in time. It provides the frequency of a particular attribute in a defined population at a specific point in time.

Target Population

Abowitz and Toole (2010) posited that the study population is the entire universe of people or things from which the sample is selected. This study's target population was the manufacturing SMEs who are members of the Kenya Association of Manufacturers. According to KMA (2022), there are 538 registered members of KMA.

Table 3.1 Target Population

Sector	Population
Agriculture sector/agro-processing	36
Automotive	44
Building, mining, and construction	39
Chemical & allied	32
Energy, electrical and electronics	47
Food and beverages	101
Leather and footwear	18
Metal and allied	43
Paper	25
Pharmaceutical and medical equipment	28
Plastics and rubber	14
Textile and apparels sector	17
Timber	12
Services and consultants	82
Total	**538**

Source: (Researcher, 2022)

Sampling Frame

A sampling frame is a list of all people or units in the population from which a sample can be chosen (Greener, 2008). According to Ng'ethe (2013), the sampling frame enables the researcher to draw an adequate random sample where all members of the population of interest get an equal chance of being selected for the sample. The sampling frame for this study consisted of a list of all 538 manufacturing SMEs in Nairobi City County, Kenya,

Sample Size

A sample is a subset of the population of interest (Patten & Newhart, 2017). The respondents' population was 538 manufacturing SMEs in Nairobi City County, Kenya. The top managers were targeted because top managers of organizations primarily handle strategic management issues. Sekaran and Bougie (2010) suggested that a sample size larger than 30 and less than 500 is appropriate for most research. Slovin's formula (1960) will be applied as illustrated:

$n = N/ (1+Ne2)$,

Where;

n = Sample Size

N = Total Population

e = Error of Tolerance with a confidence level of 95 % (giving a margin error of 0.05)

$n = 538 / (1+ 538*0.05*0.05) = 229$

Hence, the sample size was 229.

Data Collection Instruments

This study used a questionnaire to collect data. Questionnaires are research tools that reveal people's experiences, thoughts, attitudes, and orientations to future happenings (Andres, 2012). The questionnaire consisted of both open-ended questions and closed-ended questions. The questionnaire enabled the quick collection of much information (Abowitz & Toole, 2010). With the use of the questionnaire, it is possible to collect information from a large group.

Pilot Study

A pilot study was conducted to ascertain the research instruments' validity and reliability. Kothari (2004) noted that before using a questionnaire as a data collection method, it is always advisable to conduct a pilot study of the questionnaires. This helps to bring into light the weaknesses (if any) of the questionnaires, and the experience gained in this way can be used to effect improvement. Tayie (2005) suggests that samples of 25-50 are commonly used for pretesting measurement instruments. For this study, the pilot study was done using 10% of the population, giving 23 manufacturing SMEs in Nairobi City County. This was picked from each sector.

Data Analysis and Presentation

Descriptive statistics in the form of means and standard deviations was computed on the innovation strategy and performance measurement scales to provide an initial outline of the distribution of the participant's responses on these variables as well as gauge the respondents' attitudes regarding their extent of agreement or disagreement on the construct measurement items.

A multiple regression model was used to test the significance of the influence of the predictor variables on the dependent variable. Valipour et al. (2012) used a regression model to study the effect of cost leadership and product differentiation strategies on firm performance in India. The regression results on how innovative organizational structure, innovative organizational change, innovative organizational learning, and organizational innovation strategy influence the performance of manufacturing SMEs in Kenya was also demonstrated.

Descriptive statistics were presented using mean where a mean score of between 1 and 2 represented disagreement, a mean score of 3 indicated neutral responses and a mean score of between 4 and 5 represented agreements. Additionally, the significance level of the independent variables was tested using Fisher distribution test (F-test). The significance of the overall model was determined at 5% confidence level. The p-value was used to ascertain the strength of the model. Conclusion is based on p value where, the p-value of less than 0.05 imply that the overall model is significant and a p-value of greater than 0.05 imply that the overall model is insignificant.

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

Descriptive Statistics Analysis

Innovative structure and Performance of Manufacturing SMEs

The first specific objective of the study was to examine the role of Innovative structure on the performance of manufacturing SMEs in Kenya. The respondents were requested to indicate their level of agreement on statements relating to Innovative structure and performance of manufacturing SMEs in Kenya. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The scores of disagreeing have been taken to represent a variable with a mean

score of 0 to 2.4 on the continuous Likert scale; (0≤ Mean<2.4). The scores of 'Undecided have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale: (2.5≤Mean<3.4), and the score of both agree and strongly agree have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous Likert scale; (3.5≤ S.A. <5.0). The results are presented in Table 4.1.

Table 4. 1: Innovative structure and Performance of Manufacturing SMEs

	Mean	Std. Deviation
Organizational structure has modified by responding to changes in the internal and external environment of the organization.	4.46	0.943
Human resources develop their own work approaches.	4.15	0.805
Management has based its decisions on general policies that adapt to present demands.	4.50	0.688
Our organization regularly implements new management systems	4.39	0.757
The intra- and inter-departmental communication structure within our organization is regularly restructured	4.28	0.653
We continuously alter certain elements of the organizational structure	4.36	0.854
In new product and service introduction, our company is often first-to-market	3.85	0.946
Exchange of ideas, knowledge, and relevant information between members of the organization has been promoted to improve the activities of the organization	3.43	0.766
Improvement in the ability to identify, assimilate, transform, and exploit external knowledge to solve community problems related to the mission of the SMEs	3.30	0.895
Aggregate	**4.08**	**0.812**

From the results, the respondents strongly agreed that management had based its decisions on general policies that adapt to present demands. This is supported by a mean of 4.5 (std. dv = 0.688). In addition, as shown by a mean of 4.46 (std. dv = 0.943), the respondents agreed that the organizational structure has modified by responding to changes in the internal and external environment of the organization. Further, the respondents agreed that the organization regularly implements new management systems. This is shown by a mean of 4.39 (std. dv = 0.757).

The respondents also agreed that their firm continuously alters certain organizational structure elements. This is shown by a mean of 4.36 (std. dv = 0.854). With a mean of 4.28 (std. dv = 0.653), the respondents agreed that the organization's intra- and inter-departmental communication structure is regularly restructured. The respondents also agreed that human resources develop their own work approaches. This is shown by a mean of 4.15 (std. dv = 0.805). With a mean of 3.85 (std. dv = 0.946), the respondents agreed that their firm is often first-to-market after introducing new products and services.

From the results, the respondents agreed that the exchange of ideas, knowledge, and relevant information between members of the organization had been promoted to improve the activities of the organization. This is supported by a mean of 3.43 (std. dv = 0.766). In addition, as shown by a mean of 3.3 (std. dv = 0.895), the respondents agreed that their improvement in the ability to identify, assimilate, transform, and exploit external knowledge to solve community problems related to the mission of the SMEs.

Performance of Manufacturing SMEs in Kenya

The respondents were requested to indicate their level of agreement on various statements relating to the performance of manufacturing SMEs in Kenya. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The scores of disagreeing have been taken to represent a variable with a mean score of 0 to 2.4 on the continuous Likert scale; ($0 \leq$ Mean<2.4). The scores of 'Undecided have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale: ($2.5 \leq$ Mean<3.4), and the score of both agree and strongly agree have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous Likert scale; ($3.5 \leq$ S.A. <5.0). The results are presented in Table 4.2.

Table 4. 2: Performance of manufacturing SMEs in Kenya

	Mean	Std. Deviation
Our Total Profits (Total sales – Costs) have been increasing yearly	4.208	.905
The number of employees has been rising every year	4.136	.936
The volume of sales has been increasing ever yearly	4.318	.764
The geographical market size of our products has been expanding	4.214	.87
We are highly satisfied by the returns from assets invested (ROA)	4.045	.959
We are highly satisfied by the returns from borrowed money (ROE)	4.065	0.764
Number of customers satisfied by our products has been rising each year	4.377	.801
The size of our organization has been expanding for the last five years	4.253	.86
The quality of our products has improved considerably	4.344	.874
Aggregate	**4.21**	**0.859**

From the results, the respondents agreed that the number of customers satisfied by our products has been rising each year. This is supported by a mean of 4.38 (std. dv = 0.801). In addition, as shown by a mean of 4.34 (std. dv = 0.874), the respondents agreed that the quality of our products has improved considerably. Further, the respondents agreed that the sales volume has been increasing yearly. This is shown by a mean of 4.32 (std. dv = 0.764). The respondents also agreed that the organization's size has been expanding for the last five years. This is shown by a mean of 4.25 (std. dv = 0.86).

With a mean of 4.21 (std. dv = 0.87), the respondents agreed that the geographical market size of our products has been expanding. In addition, as shown by a mean of 4.21 (std. dv = 0.905), the respondents agreed that generally, the firm total Profits (Total sales – Costs) have been increasing yearly. Further, the respondents agreed that the number of employees has increased yearly. This is shown by a mean of 4.14 (std. dv = 0.936). The respondents also agreed that the firm is highly satisfied with the borrowed money returns (ROE). This is shown by a mean of 4.07 (std. dv = 0.764). The respondents also agreed that the firm is highly satisfied by the returns from assets invested (ROA). This is shown by a mean of 4.05 (std. dv = 0.959).

Correlation Analysis

Table 4. 3: Correlation Coefficients

Variables	(1)	(2)	(3)	(4)	(5)
(1) Performance of SMEs	1.000				
(2) Innovative structure	0.670***	1.000			

*** p<0.01, ** p<0.05, * p<0.1

The results showed a strong relationship between Innovative structure and the performance of manufacturing SMEs in Kenya (r = 0.670). The relationship was significant since the p-value was less than a 1% significance level. The findings are in line with the findings of Baierle et al., (2020) who found that within an organizational structures, as are the grouping, coordination, and division of tasks amongst departments and employees in an organization which positively influence the performance of an organization.

Test for Hypothesis One

The first specific objective of the study was to examine the role of innovation implementation strategies on performance of manufacturing SMEs in Kenya. The associated null hypothesis was that Innovative organizational structure has no significant role on the performance of manufacturing SMEs in Kenya. A univariate analysis was conducted in which performance of manufacturing SMEs in Kenya was regressed on Innovative organizational structure.

The R-Squared depicted the variation in the dependent variable that can be explained by the independent variables. The greater the value of R-squared the greater the effect of independent variable. The R Squared can range from 0.000 to 1.000, with 1.000 showing a perfect fit that indicates that each point is on the line. As indicated in Table 4.17, the R-squared for the relationship between Information Technology governance and the performance of Tea Producers companies in Kenya was 0.449; this is an indication that at 95% confidence interval, 44.9% of variation in performance of manufacturing SMEs in Kenya can be attributed to changes in Innovative organizational structure. Therefore, Innovative organizational structure can be used to explain 44.9% of changes in performance of manufacturing SMEs in Kenya but there are other factors that can be attributed to 55.1% change in performance of manufacturing SMEs in Kenya.

Table 4. 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670ᵃ	.449	.445	5.20807

a. Predictors: (Constant), Innovative structure

The analysis of variance was used to determine whether the regression model is a good fit for the data. It also gave the F-test statistic; the linear regression's F-test has the null hypothesis that there is no linear relationship between the two variables. From the analysis of variance (ANOVA) findings in Table 4.18, the study found out that that Prob>F= 0.000 was less than the selected 0.05 level of significance. This suggests that the model as constituted was fit to predict the performance of manufacturing SMEs in Kenya. Further, the F-calculated, from the table (123.721) was greater than the F-critical supporting the findings that Innovative structure can be used to predict the performance of manufacturing SMEs in Kenya.

Table 4. 5: ANOVAᵃ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3355.805	1	3355.805	123.721	.000ᵇ
	Residual	4122.851	152	27.124		
	Total	7478.656	153			

a. Dependent Variable: Performance of manufacturing SMEs in Kenya
b. Predictors: (Constant), Innovative structure

From the results in Table 4.6, the following regression model was fitted.

$$Y = 17.839 + 0.631 X_1$$

(X_1 is Innovative structure)

The coefficient results showed that the constant had a coefficient of 17.839 suggesting that if Innovative organizational structure was held constant at zero, performance of manufacturing SMEs in Kenya would be 17.839 units. In addition, results showed that Innovative organizational structure coefficient was 0.631 indicating that a unit increase in Innovative organizational structure would result in a 0.631 improvement in performance of manufacturing SMEs in Kenya. It was also noted that the P-value for Innovative organizational structure coefficient was 0.000 which is less than the set 0.05 significance level indicating that Innovative organizational structure was significant. Based on these results, the study rejected the null hypothesis and accepted the alternative that Innovative organizational structure has positive significant influence on performance of manufacturing SMEs in Kenya.

Table 4. 6: Beta Coefficients for Innovative structure

Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.839	2.239		7.966	.000
	OS	.631	.057	.670	11.123	.000

a. Dependent Variable: performance of manufacturing SMEs in Kenya

Conclusions

The study concludes that Innovative structure has a positive and significant effect on the performance of SMEs in Kenya. The study revealed that centralization, integration, and decision-making influence the performance of SMEs in Kenya. This implies that improvement in innovative structure (centralization, integration, and decision-making) would improve the performance of SMEs in Kenya.

Recommendations

The study found that Innovative structures (Centralization, Integration, and decision-making) influence the performance of manufacturing SMEs in Kenya. Therefore, This study recommends that the management of SMEs in Kenya should ensure they have an effective plan and a robust organizational structure that is centralized, integrated, and effective for decision-making on implementing innovative strategies.

REFERENCES

Abdi, K., Mardani, A., Senin, A. A., Tupenaite, L., Naimaviciene, J., Kanapeckiene, L., & Kutut, V. (2018). The effect of knowledge management, organizational culture and organizational learning on innovation in automotive industry. *Journal of Business Economics and Management, 19*(1), 1-19.

Abowitz, D. A., & Toole, T. M. (2010). Mixed method research: Fundamental issues of design, validity, and reliability in construction research. *Journal of construction engineering and management, 136*(1), 108-116.

Abu Amuna, Y. M., Abu-Naser, S. S., Al Shobaki, M. J., & Abu Mostafa, Y. A. (2019). Fintech: creative innovation for entrepreneurs.

Aksoy, H. (2017). How do innovation culture, marketing innovation and product innovation affect the market performance of small and medium-sized enterprises (SMEs). *Technology in Society, 51*(4), 133-141.

Awamleh, F., & Ertugan, A. (2021). The relationship between information technology capabilities, organizational intelligence, and competitive advantage. *Sage Open, 11*(2), 21582440211015201.

Baierle, I. C., Benitez, G. B., Nara, E. O. B., Schaefer, J. L., & Sellitto, M. A. (2020). Influence of open innovation variables on the competitive edge of small and medium enterprises. *Journal of Open Innovation: Technology, Market, and Complexity, 6*(4), 179.

Bilan, Y., Hussain, H. I., Haseeb, M., & Kot, S. (2020). Sustainability and economic performance: Role of organizational learning and innovation. *Engineering Economics, 31*(1), 93-103.

Chege, S. M., Wang, D., & Suntu, S. L. (2020). Impact of information technology innovation on firm performance in Kenya. *Information Technology for Development, 26*(2), 316-345.

Chen, M.-H., Wang, H.-Y., & Wang, M.-C. (2018). Knowledge sharing, social capital, and financial performance: The perspectives of innovation strategy in technological clusters. *Knowledge Management Research & Practice, 16*(1), 89-104.

Cui, T., Ye, H. J., Teo, H. H., & Li, J. (2015). Information technology and open innovation: A strategic alignment perspective. *Information & management, 52*(3), 348-358.

Damanpour, F., & Aravind, D. (2012). Organizational structure and innovation revisited: From organic to ambidextrous structure. In *Handbook of organizational creativity* (pp. 483-513): Elsevier.

Damanpour, F., & Wischnevsky, J. D. (2006). Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations. *Journal of Engineering and Technology Management, 23*(4), 269-291.

Dedahanov, A. T., Rhee, C., & Yoon, J. (2017). Organizational structure and innovation performance: is employee innovative behavior a missing link? *Career Development International*.

Dogan, E. (2017). A strategic approach to innovation. *Journal of Management Marketing and Logistics, 4*(3), 290-300.

Duhaylongsod, J. B., & De Giovanni, P. (2018). The impact of innovation strategies on the relationship between supplier integration and operational performance. *International Journal of Physical Distribution & Logistics Management*.

Esemu, T., & Wood, E. (2014). Innovation and Value Creation in Emerging African Commercial Agriculture: Evidence from the Ugandan Flower Export Sector. In *Quality Innovation: Knowledge, Theory, and Practices* (pp. 497-521): IGI Global.

Etriya, E., Omta, O., Scholten, V., & Wubben, E. (2020). The importance of entrepreneurship and innovation for smallholder vegetable farmers in West Java, Indonesia.

Fathema, N., Shannon, D., & Ross, M. (2015). Expanding the Technology Acceptance Model (TAM) to examine faculty use of Learning Management Systems (LMSs) in higher education institutions. *Journal of Online Learning & Teaching, 11*(2).

Frey, B. S., Homberg, F., & Osterloh, M. (2013). Organizational control systems and pay-for-performance in the public service. *Organization studies, 34*(7), 949-972.

Ghauri, P., Grønhaug, K., & Strange, R. (2020). *Research methods in business studies*: Cambridge University Press.

Gitau, R. M. (2011). *The relationship between financial innovation and financial performance of commercial banks in Kenya.* University of Nairobi,

Ho, K. L. P., Nguyen, C. N., Adhikari, R., Miles, M. P., & Bonney, L. (2018). Exploring market orientation, innovation, and financial performance in agricultural value chains in emerging economies. *Journal of Innovation & Knowledge, 3*(3), 154-163.

Hvolkova, L., Klement, L., Klementova, V., & Kovalova, M. (2019). Barriers hindering innovations in small and medium-sized enterprises. *Journal of Competitiveness, 11*(2), 51.

Kamau, J. G., Senaji, T. A., Eng, R., & Nzioki, S. C. (2019). Effect of information technology capability on competitive advantage of the Kenyan banking sector. *International Journal of Technology and Systems, 4*(1), 1-20.

Karlsson, C., & Tavassoli, S. (2016). Innovation strategies of firms: What strategies and why? *The Journal of Technology Transfer, 41*(6), 1483-1506.

Kim, J., & Choi, S. O. (2020). The intensity of organizational change and the perception of organizational innovativeness; with discussion on open innovation. *Journal of Open Innovation: Technology, Market, and Complexity, 6*(3), 66.

Migdadi, M. M. (2019). Organizational learning capability, innovation and organizational performance. *European Journal of Innovation Management*.

Walker, R. M., Chen, J., & Aravind, D. (2015). Management innovation and firm performance: An integration of research findings. *European Management Journal, 33*(5), 407-422.

Wang, D. S. (2019). Association between technological innovation and firm performance in small and medium-sized enterprises: The moderating effect of environmental factors. *International Journal of Innovation Science*.

Waruwu, H., Asbari, M., Purwanto, A., Nugroho, Y. A., Fikri, M. A. A., Fauji, A., . . . Agistiawati, E. (2020). The role of transformational leadership, organizational learning and structure on innovation capacity: Evidence from Indonesia private schools. *EduPsyCouns: Journal of Education, Psychology and Counseling, 2*(1), 378-397.