Journal of Applied Social Sciences in Business and Management
(JASSBM)
Volume 3, Issue 2, 2024

Journal Homepage: https://grandmarkpublishers.com/index.php/JASSBM

INNOVATION STRATEGY AND PERFORMANCE OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES IN KENYA

[1] Masoud Idi Ochieng Juma, [2] Dr. Ndururi Joseph, PhD [3] Dr. Omwenga Jane, PhD

[1]PhD Student, Jomo Kenyatta University of Agriculture and Technology
[2]Lecturer, Jomo Kenyatta University of Agriculture and Technology
[3]Lecturer, Jomo Kenyatta University of Agriculture and Technology

ABSTRACT

This study sought to examine the role of innovation strategy on performance of SMEs in Kenya. The study applied Innovation 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 also concludes that innovation strategy has a positive and significant effect on the performance of manufacturing SMEs in Kenya. The study revealed that new products, new markets, and product development influence the performance of manufacturing SMEs in Kenya. This implies that improving innovation strategy (new products, new markets, and product development) would improve manufacturing SMEs' performance in Kenya. This study, therefore, recommends that the management of manufacturing SMEs in Kenya should promote an innovative work environment

Key Words: innovation strategy, performance of SMEs in Kenya, Innovation theory

Background of the Study

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) are globally recognized as catalysts for global economic growth (Etriya, Omta, Scholten, & Wubben, 2020). SMEs are considered key drivers of socio-economic development and competitiveness due to their multifaceted contributions to the economy (Sahut & Peris-Ortiz, 2014). The sector generates significant income and employment, creates opportunities for developing and adopting appropriate technology, and is a major source for innovations ((Ho, Nguyen, Adhikari, Miles, & Bonney, 2018; Shiu & Walker, 2007; Subrahmanya, Mathirajan & Krishnaswamy, 2010).

Small and medium enterprises play a crucial role in the development of most countries in Africa. In a lot of cases, SMEs come to be as a result of reduction in job security in big firms and the public sector, increase in education levels and innovation. Small and medium enterprises come up when an economy of a country is not doing well because of shrinking of employment in the

public sector (Masocha, Zindiye & Chiliya, 2012). When the economy of a country is doing well SMEs survive better because factors like credit is easier to access and governments can improve other factors of production such as infrastructure, states International Finance Corporation (IFC), (2011).

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 innovation strategy and how it affects the performance of manufacturing SMEs in Kenya.

General Objective

To examine the relationship between innovation strategy and performance of manufacturing SMEs in Kenya

Theoretical Framework

Theory of Innovation

Innovation theory, also called diffusion of innovation theory, explains the manner in which developments gain traction and over time spread through a certain group of people. The theory was advanced by Rogers in 2003 and uses communication as a concept to try and explain how advancements are spread. These advancements could be in the forms of new products, ideas, behaviors or technology. The theory intends to explain how the technological innovations move from the conception phase to their final use. The anticipated result is adoption of the product or idea by members of a social system (Zhou & Li, 2011). The adoption does not occur simultaneously rather it is a process, with some people more willing and ready to adopt the innovation than other.

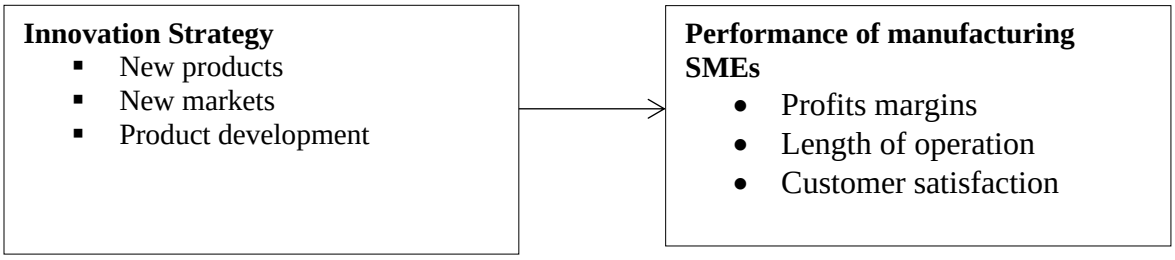
The theory clusters around the idea that people who adopt an innovation early or later have different characteristics. It is essential to understand the characteristics of the target population when promoting an innovation(Maryann, 2014). Based on the characteristics of the target population, there are five categories: innovators, early adopters, late adopters, late majority and laggards (Rogers, 2003). Innovators are often venturesome and willing to take the risk of trying the innovation and very little appeal is required to have them adopt an innovation.

Early adopters represent opinion leaders and are willing to take up changes. Early majority adopt ideas faster than the average person even though they are rarely leaders. Late majority are skeptical of change and only accepts an innovation when majority of people have approved it.

Laggards are conservatively bound by tradition and do not adopt an innovation easily (Renana & Eitan, 2019). The willingness of a person to adopt a technological innovation is based on four factors: awareness of the importance of the innovation, their decision, initial use of the innovation and continued use.

The theory can influence the innovation strategies that manufacturing small and medium enterprises in Kenya adopt to gain competitive advantage. The most successful adoption of an idea or product depends on their understanding of the target population and factors that influence their rate of adoption (Yusr, 2016). Small and medium enterprises are obliged to adopt new innovation strategies, structures, learning and changes that spread easily and integrate into the social system.

Conceptual Framework



Independent Variables **Dependent Variable**

Innovation Strategy

According to the Crema et al. (2014) organizational innovation refers to improvements in internal interactions within an organization such as collaboration between different units and the association and participation among different interest groups and the networks of their environment. Baierle et al. (2020) conceives it as a significant change in routines and procedures in the management of organizations, Organizational structure, and changes their strategic orientation. Innovation in organizations involves learning processes that promote the development of teamwork knowledge and skills while facilitating adaptation to change and competitiveness (Claver-Cortés, Zaragoza Sáez & González-Illescas, 2018).

Fathema, Shannon, and Ross (2015) recognized innovation strategies as critical enablers for firm's performance through creating value and sustaining the firm's upper hand in the undeniably unpredictable and quickly evolving environment. The success of most firms majorly depends on efficient operational processes which result from more investments in technologies that enhance firm internal efficiencies (Munyoroku, 2014). Thus, technological innovation strategies adopted by firms should help to identify and explore new revenue opportunities and improve customer satisfaction through reliable delivery. Technological innovation strategies involve the adoption of systems such as ERP systems that provide capabilities that support and enhance processes associated with producing. The systems should also help improve firm activities by automating routine tasks such as order management (Valacich & Schneider, 2012).

Empirical Review

Innovation Strategy and Competitive Performance of SMEs

According to the Crema et al. (2014) organizational innovation refers to improvements in internal interactions within an organization such as collaboration between different units and the

association and participation among different interest groups and the networks of their environment. Baierle et al. (2020) conceives it as a significant change in routines and procedures in the management of organizations, Organizational structure, and changes their strategic orientation. Innovation in organizations involves learning processes that promote the development of teamwork knowledge and skills while facilitating adaptation to change and competitiveness (Claver-Cortés, Zaragoza Sáez & González-Illescas, 2018).

Morente and Ferràs-Hernández (2017) consider that organizational innovation is related to innovation capacities, Organizational culture, personality, leadership, creativity, and entrepreneurship. In addition, OECD (2018) defines Organizational Innovation as the implementation of new Organizational methods such as business practices, roles, and external relationships. Prajogo (2016) argues that product and process innovation relate to the specific organization strategy that firms adapt to respond to market demand and opportunities by leveraging on organizational capability and competence. Managers are faced with making strategic choices between using new knowledge or technology to develop new products or pursuing higher return by using more efficient production system. This problem emanates from the choice between product and process innovation which is due to the competitive environment where firms operate (Filipini & Martini, 2010).

Innovation has a positive connotation and is viewed as a practical construct with beneficial outcome for its generators and adopters. Organizations generate and adopt different types of innovations that are deemed to be of value to meeting their short-term and long-terms goals and making their operation efficient and effective. Advancement techniques are key in enhanced execution among many organizations and are reflected by expanded productivity and piece of the overall industry development (Chander et al., 2020).

Kok and Beimans (2009) argue that product innovation is necessary for creating superior customer values and supports the overall firm performance. Process innovation is an important source of competitive and strategic advantages for firms because they are often hidden. Process innovation are internally within organizations which make them difficult to be imitated by competitors (Maine et al., 2012). Prajogo (2016) contends that firms that focus on process innovations may not be aggressive in developing new products to the markets, rather they may compete in established (mature) markets where the primary focus of the strategies is to make and deliver products (which could be similar to competitors) to customers in higher values, such as faster, more flexible or cheaper (Klingenberg et al., 2013).

Firms can use process innovations (in the form of new process technology) as strategic tactics to increase entry barriers for competitors; hence, protecting the firms' markets advantage (Porter, 1985). Firms can use marketing innovation to meet customer needs, develop new markets, or position a firm’s product in the market, with the aim of improving the firm’s competitive advantage (Kiveu et al., 2019). ZuńigaCollazos and Castillo-Palacio (2016) suggest that innovative marketing strategies can improve customer satisfaction and the image of company´s products and services. Firms can use marketing innovation activities to satisfy new, existing markets (customers) and to enhance the image of company´s products and services. The activities of firms and the industry they operate in determine their level of engagement in marketing innovation (Herman, Hady, & Arafah, 2018).

The competitive environment that companies face today is very different from the competitive environment that created the concept of strategy fifty years ago (Cho & Lee, 2018). However,

the rapidly changing strategy environment has become a power that partially depresses some traditional strategy concepts such as industry structure analysis while evoking a lot of new thoughts at the same time (Narver, Slater, & MacLachlan, 2000). Indeed, this context changing for the strategy has encouraged many new ideas on strategy content. The new themes in the strategy world include foresight, knowledge, competencies, coalitions, networks, extramarket competition, ecosystems, transformation and renewal. In order to maintain their existence in an "innovate or die" environment of the new economy, companies must develop a new strategy, which is highly important for them (Dedahanov et al., 2017).

The strategic management of innovation indicates an important component of the corporate strategy and an important factor that has a significant contribution to a company's competitive advantage (Kach et al., 2015). For this reason, the strategic management of innovation has become a fundamental issue in the field of strategic management. An innovation can be a new product or service, a new production process technology, a new structure or administrative system or a new plan or program pertaining to organizational members (Keupp et.al.,2012). Strategy deals with the essential issues of maintaining the entity's existence, represents the new activities and areas of interests and addresses the unusual affairs for the organization (Dogan, 2017).

In a world where discontinuity is dominant, the strategic innovation is perceived as a key to creating wealth and as the only way to combat resource disadvantages for new entrants of the market and to maintain success (Massa & Tucci, 2013). In a turbulent economic environment characterized by radical changes in a short time, it is essential for the enterprise to have the ability to develop and play a different game. Developing a unique strategy requires learning at a high level of innovation, proactivity, calculated risk taking and analysis of the changes that occur in customer preferences and behaviors of competitors (Preda, 2013). Companies must focus more on strategic innovation that integrates and even transcends all dimensions of innovation in order to create sustainable growth (Dogan, 2017).

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

Innovation Strategy and Performance of Manufacturing SMEs

The fourth specific objective of the study was to examine the role of innovation strategy on the performance of manufacturing SMEs in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to innovation strategy 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 results are presented in Table 4.1.

Table 4. 1: Innovation Strategy and Performance of Manufacturing SMEs

	Mean	Std. Deviation
We manage to cope with market demands and develop new products and services quickly	3.57	.88
We continuously modify design of our products and services and rapidly enter new markets	4.43	.84
Our firm manages to deliver special products/services flexibly according to customers' orders.	3.83	.82
We continuously improve old products and services and raise quality of new products	4.54	.84
Development of new channels for products and services offered by our corporation is an on-going process.	4.65	.72
We deal with customers' suggestions or complaints urgently and with utmost care	4.53	.87
In marketing innovations (entering new markets, new pricing methods, new distribution methods, etc.) our company is better than competitors	4.5	.77
Business departments understands the IT environment (e.g., its current and potential capabilities, systems, services, processes)	4.48	.76
There is better coordination and integration of information flow and activities within and/or between firm boundaries	4.80	.84
Business managers understand the work environment of IT	4.48	.84
The organizational strategies are consistent with the other organization's positions	4.25	.76
Aggregate	**4.369**	**0.813**

From the results, the respondents strongly agreed that there is better coordination and integration of information flow and activities within and between firm boundaries. This is supported by a mean of 4.8 (std. dv = 0.84). In addition, as shown by a mean of 4.65 (std. dv = 0.72), the respondents strongly agreed that developing new channels for products and services offered by our corporation is an on-going process. Further, the respondents strongly agreed that their firm continuously improves old products and services and raises the quality of new products. This is shown by a mean of 4.54 (std. dv = 0.84). The respondents also strongly agreed that they urgently deal with customers' suggestions or complaints and with utmost care. This is shown by a mean of 4.53 (std. dv = 0.87).

The respondents strongly agreed that our company is better than competitors in marketing innovations (entering new markets, new pricing, and distribution methods). This is supported by a mean of 4.5 (std. dv = 0.77). In addition, as shown by a mean of 4.48 (std. dv = 0.76), the respondents agreed that business departments understand the IT environment (e.g., its current and potential capabilities, systems, services, processes). Further, the respondents agreed that their business managers understand the work environment of IT. This is shown by a mean of 4.48 (std. dv = 0.84). With a mean of 4.43 (std. dv = 0.84), the respondents also agreed that the firm continuously modifies design of our products and services and rapidly enters new markets.

From the results, the respondents agreed that the organizational strategies are consistent with the other organization's positions. This is supported by a mean of 4.25 (std. dv = 0.76). In addition, as shown by a mean of 3.83 (std. dv = 0.82), the respondents agreed that our firm delivers special products/services flexibly according to customers' orders. Further, the respondents agreed that the firm can quickly cope with market demands and develop new products and services. This is

shown by a mean of 3.57 (std. dv = 0.88). The respondents also agreed that effective programs are in place to attract and retain the best IT professionals with technical and business skills. This is shown by a mean of 3.24 (std. dv = 0.95). With a mean of 3.17 (std. dv = 0.73), the respondents agreed that individuals are responsible for collecting, assembling and distributing employees' suggestions internally.

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≤ 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 4.2.

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				
(5) innovation strategy	0.683***	0.818***	0.858***	0.874***	1.000

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

The results also revealed a strong relationship between innovation strategy and the performance of manufacturing SMEs in Kenya (r = 0.683). The relationship was significant since the p-value was less than a 1% significance level. The findings are in line with the results of Minjeong and Sungyong (2021) who revealed that there is a very strong relationship between Organizational innovation strategy and performance manufacturing SMEs. The study concluded that formulation and execution of a robust organizational innovation strategy impact significantly the overall business performance.Thereby, emphasizing the strategic imperative of innovation for sustained competitive advantage.

Test for Hypothesis Four

The objective of the study was to find out innovation strategy has no significant role on performance of manufacturing SMEs in Kenya. The corresponding hypothesis was:

Ho_4: Innovation strategy has no significant role on performance of manufacturing SMEs in Kenya.

A univariate analysis was therefore conducted to test the null hypothesis. From the model summary findings in Table 4.24, the r-squared for the relationship between Organizational innovation strategy and performance of manufacturing SMEs in Kenya was 0.467; this is an indication that at 95% confidence interval, 46.7% variation in performance of manufacturing SMEs in Kenya can be attributed to changes in Organizational innovation strategy. Therefore, Organizational innovation strategy can be used to explain 46.7% change in performance of manufacturing SMEs in Kenya. However, the remaining 53.3% variation in performance of manufacturing SMEs in Kenya suggests that there are other factors other than Organizational innovation strategy that explain performance of manufacturing SMEs in Kenya.

Table 4. 4: Model Summary for innovation strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.683[a]	.467	.464	5.12035

a. Predictors: (Constant), innovation strategy

The analysis of variance was used to determine whether the regression model is a good fit for the data. From the analysis of variance (ANOVA) findings in Table 4.5, 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 performance of manufacturing SMEs in Kenya. Further, the F-calculated, from the table (133.249) was greater than the F-critical, from f-distribution tables (3.924) supporting the findings that innovation strategy can be used to predict to predict performance of manufacturing SMEs in Kenya.

Table 4. 5: ANOVA for Innovation strategy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3493.522	1	3493.522	133.249	.000[b]
	Residual	3985.134	152	26.218		
	Total	7478.656	153			

a. Dependent Variable: Performance of manufacturing SMEs in Kenya

b. Predictors: (Constant), innovation strategy

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

$$Y = 0.142 + 0.411\ X_4$$

(X_4 is Information Technology communication)

The coefficient results showed that the constant had a coefficient of 10.777 suggesting that if innovation strategy was held constant at zero, performance of manufacturing SMEs in Kenya would be at 10.777 units. In addition, results showed that Organizational innovation strategy coefficient was 0.635 indicating that a unit increase in Organizational innovation strategy would result in a 0.635 unit improvement in performance of manufacturing SMEs in Kenya. It was also noted that the P-value for Organizational innovation strategy was 0.000 which is less than the set 0.05 significance level indicating that innovation strategy was significant. Based on these results, the study rejected the null hypothesis and accepted the alternative that innovation strategy has positive significant influence on performance of manufacturing SMEs in Kenya.

Table 4. 6: Beta Coefficients for innovation strategy

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	10.777	2.762		3.902	.000
	OIS	.635	.055	.683	11.543	.000

a. Dependent Variable: performance of manufacturing SMEs in Kenya

Conclusions

The study also concludes that innovation strategy has a positive and significant effect on the performance of manufacturing SMEs in Kenya. The study revealed that new products, new markets, and product development influence the performance of manufacturing SMEs in Kenya. This implies that improving innovation strategy (new products, new markets, and product development) would improve manufacturing SMEs' performance in Kenya.

Recommendations

The study also found that innovation strategy influences the performance of manufacturing SMEs in Kenya. This study, therefore, recommends that the management of manufacturing SMEs in Kenya should promote an innovative work environment.

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.

Alrowwad, A. a., & Abualoush, S. H. (2020). Innovation and intellectual capital as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development*.

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.

Blind, K., Pohlisch, J., & Rainville, A. (2020). Innovation and standardization as drivers of companies' success in public procurement: an empirical analysis. *The Journal of Technology Transfer, 45*(3), 664-693.

Cegarra-Navarro, J.-G., Reverte, C., Gómez-Melero, E., & Wensley, A. K. (2016). Linking social and economic responsibilities with financial performance: The role of innovation. *European Management Journal, 34*(5), 530-539.

Chander, N., Siow, M. L., Ramachandran, S., Kunasekaran, P., & Rathakrishnan, T. (2020). Conceptualizing Inclusive Learning and Development: A Framework towards Entrepreneurial Competency Practices for Sustainability. *Sustainability, 12*(17), 6905.

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.

Chen, M., Yang, Z., Dou, W., & Wang, F. (2018). Flying or dying? Organizational change, customer participation, and innovation ambidexterity in emerging economies. *Asia pacific journal of management, 35*(1), 97-119.

Hao, Q., Kasper, H., & Muehlbacher, J. (2012). How does organizational structure influence performance through learning and innovation in Austria and China. *Chinese Management Studies*.

Herman, H., Hady, H., & Arafah, W. (2018). The influence of market orientation and product innovation on the competitive advantage and its implication toward Small and Medium Enterprises (UKM) performance. *International Journal of Science and Engineering Invention, 4*(08), 08 to 21-08 to 21.

Hilman, H., & Kaliappen, N. (2015). Innovation strategies and performance: are they truly linked? *World Journal of Entrepreneurship, Management and Sustainable Development*.

Hittmár, Š., Varmus, M., & Lendel, V. (2014). Proposal of model for effective implementation of innovation strategy to business. *Procedia-Social and Behavioral Sciences, 109*, 1194-1198.

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.

Iza, C. L. B., & Dentoni, D. (2020). How entrepreneurial orientation drives farmers' innovation differential in Ugandan coffee multi-stakeholder platforms. *Journal of Agribusiness in Developing and Emerging Economies*.

Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research, 64*(4), 408-417.

Jorfi, S., Nor, K. M., & Najjar, L. (2017). An empirical study of the role of IT flexibility and IT capability in IT-business strategic alignment. *Journal of Systems and Information Technology*.

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

Narver, J. C., Slater, S. F., & MacLachlan, D. L. (2000). *Total market orientation, business performance, and innovation*: Marketing Science Institute.

Pavlov, P. (2017). Innovation strategies in the industrial enterprises of the Varna region.

Pisano, G. P. (2015). You need an innovation strategy. *Harvard business review, 93*(6), 44-54.

Prajogo, D. I. (2016). The strategic fit between innovation strategies and business environment in delivering business performance. *International Journal of Production Economics, 171*, 241-249.

Racela, O. C., & Thoumrungroje, A. (2019). When do customer orientation and innovation capabilities matter? An investigation of contextual impacts. *Asia Pacific Journal of Marketing and Logistics*.

Renana, P., & Eitan, M. (2019). The Effect of Social Networks Structure on Innovative Perfomance: A Review and Directions for Research. *International Journal of Research in Marketing, 36*(1), 3-19.

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.

Yusr, R. (2016). Innovation Capability and its Role in Enhancing the Relationship Between TQM Practices and Innovation Performance. *Journal of Open Innovation: Technology, Market and Complexity, 2*(1), 6-7.

Zhao, Q., Tsai, P.-H., & Wang, J.-L. (2019). Improving financial service innovation strategies for enhancing china's banking industry competitive advantage during the fintech revolution: A Hybrid MCDM model. *Sustainability, 11*(5), 1419.