EdinBurg Peer Reviewed Journals and Books Publishers
Journal of Entrepreneurship & Project Management
Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

# Entrepreneurial Orientation and Performance of Small and Medium Enterprises in Kenya

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**How to cite this article: Sigey, R. K., Omwenga, J., & Sije, A. (2023). Entrepreneurial Orientation and Performance of Small and Medium Enterprises in Kenya. *Journal Entrepreneurship and Project Management, 3*(2), 19-35.**

## ABSTRACT

Many nations acknowledge that SMEs play an important role in ensuring economic stability, growth, job creation, and social cohesion besides development. Despite the importance of SME sector in the growing economy, these enterprises face various challenges that include a shortage of operating funds, diversion of returns to other uses, and personal issues. The objective of this study was to assess the entrepreneurial orientation and performance of SMEs in Kenya. The study also sought to determine the moderating role of information technology capability on entrepreneurial orientation as pertained the performance of SMEs in Kenya. The study was anchored on the resource-based view theory. The study adopted a cross-sectional survey research design and, the targeted population was SMEs. The sample population was a census of top 100 Small and Medium-sized firms which were surveyed by Nation Media Group and KPMG Audit and Management firm for the year 2017. Self-administered semi-structured questionnaires were used to collect primary data. Data was analyzed using descriptive and inferential statistics. The study found that SMEs' performance was influenced positively but insignificantly by entrepreneurial orientation. Results also indicated that in the presence of information technology capability, the contribution of entrepreneurial orientation towards the performance of SMEs is insignificant. The study concludes that it is important for SME firms to build entrepreneurial capacities to enhance performance. The study recommended that SME managers need to put in place resources and mechanisms that encourage and support entrepreneurial activities. Such activities such as encouraging innovation, product offering and continuously assessing risk.

**Keywords:** *Entrepreneurial Orientation, Information Technology, Performance of Small and Medium Enterprises*

## 1. INTRODUCTION

Small and Medium Enterprises power up the economic growth of many countries of the world. Nations acknowledged small businesses for their role in contributing to economic stability and growth, job creation, and social cohesion besides development. Baporikar (2017) argues that SMEs bring about equitable development and make available huge employment opportunities at a lower capital cost. It also enables the industrialization of backward areas. The failure rate of small businesses worldwide is high. Hyder and Lussier (2016) noted the difficulties encountered by SMEs and identified business planning, proper employee staffing, adequate capital inflows, and partnership as important to the sustainability and realization of the success of small businesses in Pakistan.

In Europe, 99 percent of all enterprises are SMEs and employ 87 million people (Leithhold et al., 2016; Muller et al., 2014 and Gagliardi et al., 2013) while in the United States a similar trend is observed with 99.7 percent of all businesses being SMEs (Dilger R., 2018). In India, the sector contributes 45 percent of the industrial output and employs more than 60 million people directly. The SMEs further generate 1.3 million jobs every year and manufacture 8000 products for India and international market.

Kenya National Bureau of Statistics (KNBS) Small Business Survey Basic Report (2016) reported that 81.7 percent of all employment that is 14.4 million people are found in the SME sector in Kenya. It contributed 34 percent of the GDP in 2015. The sector is not without any challenges. The survey noted that 2.2 million enterprises were closed in the last two years due to various challenges. The survey added that many closures are due to a shortage of operating funds, diversion of returns or operating funds to other uses, and some reported personal issues ranging from pre-natal to parental care among the reasons for cessation.

The rapidly changing business environment presents SMEs with many challenges. The skill competencies and resources available are not adequate to face the continuous technical changes, market uncertainties, and high level of competition (Samantha et al., 2011). Despite the challenges, entrepreneurs still must stay focused on the growth and improvement of products and services to wade off market rivalry and stay relevant to rapidly changing technology and consumer preferences.

Adopting Information Communication Technology (ICT) is an important technique and small firms could use it to boost their growth and innovation. ICT is rapidly changing the way enterprises and consumers interact. It exhibits itself in more and more globalization production, rapidly changing consumption patterns, new ways of organizing work, constantly improving business methods, and expanding international trade. The rapid development of information and communication technologies and easy accessibility of information technology services are progressively becoming very important for SMEs in achieving new competitive advantage (Samantha et al., 2011). This too has helped economy shift to knowledge-based. IT capability is the capacity of a firm to advantageously use a wide collection of technologies for business operations (Parida et al., 2016; Mithas et al., 2011). It includes the use of intranet, extranet, ERP, SCM, E-Commerce, and other technological applications that are relevant to SME firms (Kannabiran and Dhamalingam, 2012; Tan et al., 2010). These capabilities are particularly beneficial to small firms as they create a link to increase internal efficiency, initiate and maintain group efforts with external partners, and improve internal and external communication (Parida et al., 2016).

**Problem Statement**

Small and Medium Enterprises (SMEs) grease the levers of economic growth of many countries. Many nations acknowledge SMEs for their important role in ensuring economic stability, growth, job creation, and social cohesion besides development. SMEs promote equitable development, provide huge employment opportunities at a lower capital cost, and enable the industrialization of underdeveloped areas of economy. Small businesses also provide significant value addition, affordable goods and services, foster innovation and experimentation as well as play a critical role in social cohesion and poverty eradication among communities. Locally, the SME sector creates jobs by employing up to 81.1 percent of the total employment. Additionally, it contributed about 34 percent to Kenya's Gross Domestic Product (GDP) in 2015 (KNBS, 2016).

Despite the importance of SME sector in the growing economy, the study revealed that 2.2 million of these enterprises were closed in Kenya in the last two years due to various challenges that include shortage of operating funds, diversion of returns to other uses while some reported personal issues ranging from pre-natal to parental care (KNBS, 2016). It is estimated that two -thirds of the initial startups globally do not live up to their fifth year. Large amounts of invested funds and jobs are lost midway besides forgone opportunities that can never be recovered. These create a loss of employment, a cycle of poverty, poor social cohesion, and even rebellion and unrest against those in authority (Boparika, 2016).

These concerns arise from managerial inadequacy, incompetence, inefficiency, and inexperience, especially on the part of novice startup proprietors (Mwaniki & Ondieki, 2018). Many of today's SMEs have not developed adequate capacities to deal with the challenges of competition, market penetration, horning of entrepreneurial skills and efficient organizational workflows. The arrival of information technology services in every part of business interaction is expected to help this sector manage its organizational deliveries better and more efficiently than before.

The teething problems outlined above play a major role in increasing the risk of survival of this sector thereby denying it the much-needed financial support from capital investors, confidence from suppliers, high customer product rating, and inclusion in major government policy frameworks and provisions. In view of these challenges and perceptions, the sector cannot expand, purchase adequate raw materials, implement efficient operations, improve product and service offerings, and or expand marketing outreach.

Adopting appropriate strategic orientation may offer SME sector requisite improvements in their operations to gain superior firm performance, increase internal and external capabilities, and create competitive advantage. Small enterprises should take advantage of innovations in technology to apply them in their daily and routine activities to improve their processes and affirm their credibility. SMEs also need to accept and apply information technology in their strategic and operational areas which are key in the delivery of quality and efficient products and services to their clients.

Rose et al (2011) argue that IT capabilities remain an important part of any business to compete and operate effectively. Any firm that seeks to create capabilities for the future must base those capabilities on its information technology. Understanding how information technology capabilities affect the strategic delivery of services in the SME sector can be a turnaround strategy in their quest to have superior performance. Excellent performance will earn them much-needed support from suppliers and other industry players, and therefore lead to the realization of Kenya's industrialization and poverty alleviation as envisioned in Vision 2030.

Zhau and Liu (2016) noted the positive effect of moderating the role of IT capability in the relationship between supply chain collaboration and organizational responsiveness. The researchers added that IT capability can be further researched in other areas of business. Aremu and Oyinlola (2014) stated that some areas that require the attention of research include intervening outcomes and the implication of participatory orientations to strategic planning and performance. This study sought to investigate the moderating role of IT capabilities on the relationship between entrepreneurial orientation and performance of SMEs in Kenya.

**Research Hypothesis**

$H_{01}$: There is no significant relationship between entrepreneurial orientation and the performance of SMEs in Kenya

$H_{02}$: IT capabilities do not moderate the relationship between entrepreneurial orientation and performance of SMEs in Kenya

## 2. LITERATURE REVIEW

### Theoretical Review

Resource-Based View theory was advanced by Barney (1991) who stated that organizational resources carry potential competitive advantage when they are valuable, rare, imperfectly imitable, and non-substitutable. He noted that key resources owned by an organization determine the competitive advantage of that organization. Peng (2006) further stated that a firm's resources and capabilities mostly differentiate prospective firms from failing ones. Resources of the firms can be tangible or intangible. Tangible resources are assets that can be seen and quantified (Seede, 2012). Resources are organized into four categories namely financial, organizational, physical, and technological. Intangible are those assets that the organization has accumulated over time and are entrenched in the 'organization's values and routines. They include humans, innovations, and reputation. The resourced-based view theory therefore treats entrepreneurial orientations and IT capabilities as a firm's intangible resources that are used to create a competitive advantage. They can enhance critical organizational capabilities, which can boost firm performance.

### Empirical Review

Nasir, Mamun, and Breen (2017) examined the effect of strategic orientation on the performance of small and medium enterprises (SMEs) in Malaysia. The study was based on 473 businesspersons who work in the service sector. The potential respondents were selected using probability-stratified random sampling. A cross-sectional research design was employed in the selection and analysis of data. The researchers noted that the design will help in demographic profiling of the SMEs into different themes that comprise of number of employees, years of operations, and membership in any business organization. The researchers considered entrepreneurial orientation, market orientation, and interaction orientation as constructs for the strategic orientation. Nasir et al. (2017) posited that these constructs create a complete view of the effect of strategic orientation on organizational performance. The research studies found that entrepreneurial orientation contributes the most significant role in strategic orientation and the greatest positive effect on SME performance among the three constructs. Interaction orientation did not affect organizational performance while market orientation contributed to a reduced role in conditions of market competitive intensity. The researchers recommended that organizations embrace a flexible and diverse mix of strategic orientations according to their requirements and the external environment and conditions in which they operate.

Laukkanen, Nagy, Hirvonen, Reijonen, Pasanen (nd) examined the influence of six different strategic orientations on SME business growth in a cross-national study involving two European countries Hungary and Finland. The six strategy orientations that the research looked into include relationship orientation, learning orientation, innovation orientation, market orientation, entrepreneurial orientation, and brand orientation. The research sent online questionnaires to firms in Hungary and Finland were able to receive 1120 responses consisting of 820 from Hungary and 300 from Finland. Laukkanen et al. (nd) analyzed the data using four sequential steps and a regression model. The influences of strategic orientation constructs on business growth were calculated. The research focused on the two European nations with different political, social, and economic backgrounds for cross-national assessment. Hungary represented a post socialist developing market, and Finland with steady, developed, and

competitive economy. The research study shows that two of the six strategic orientations under study have positive effects on business growth and three are noted to have negative effects. One orientation is found to be insignificant. There is more effect of entrepreneurial orientation in Hungary than in Finland although when it is about market orientation, an opposite effect was identified. This means that in Hungary, an emerging market, firm growth is attained through inclination to take risk and the identification of business opportunities not yet discovered by competitors (Laukkanen et al., ND). Capitalism and developed market structure characterize Finland's economy; however, the entrepreneurial orientation role is significantly smaller as compared with the role of market orientation. The study result is consistent with the research done by Lussier and Pfeirer (2000) and Yusuf (1995).

The role played by small and medium enterprises in any economy cannot be downplayed. They are fundamental to the creation of employment, and reduction of poverty (Rotich, Wanjau & Namusonge, 2015). The research by the trio was to determine the role played by entrepreneurial orientation on relationship lending by banks and financial performance by SMEs. The researchers asserted that entrepreneurial orientation organizations pursue entrepreneurial activities by adapting structure, managerial activities, and processes as a result to acquire the required speed, agility, creativity and determination to act profitably upon the presence of particular opportunities (Rotich, Wanjau, and Namusonge, 2015). The study was conducted in Nairobi, Kenya with 620 manufacturing firms participating. The research study employed cross-sectional research design and stratified random sampling was used in selecting a sample of 160 manufacturing firms. The study adopted structural equation modeling (SEM) and employed hierarchical moderated multiple regressions (MMR) to test the hypothesis.

Ndururi, Mukulu, and Omwenga (2019) assessed the impact of entrepreneurial capital on the growth of women-owned MMEs in central Kenya districts. The target group is registered entrepreneurs and recipients of Uwezo funds. Data collection was carried out using a questionnaire. Descriptive and inferential statistics were used in data analysis. The results of the study show that entrepreneurial capital has a positive and significant relationship with the growth of women's businesses. Based on the results of the study, the study concluded that there is a need to invest in market-oriented skills, increase the knowledge of employers and employees, and encourage self-motivation while striving for the desired growth. Women entrepreneurs need to invest in improving their skills and those of their employees through education and training.

**Conceptual Framework**

Bryman and Bell, (2015) define conceptual framework as a concise description of phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. A conceptual framework shows the relationship between variables. In this study, the dependent variable is performance of SMEs, independent variable is entrepreneurial orientation and moderating variable is IT.

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Journal of Entrepreneurship & Project Management
Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

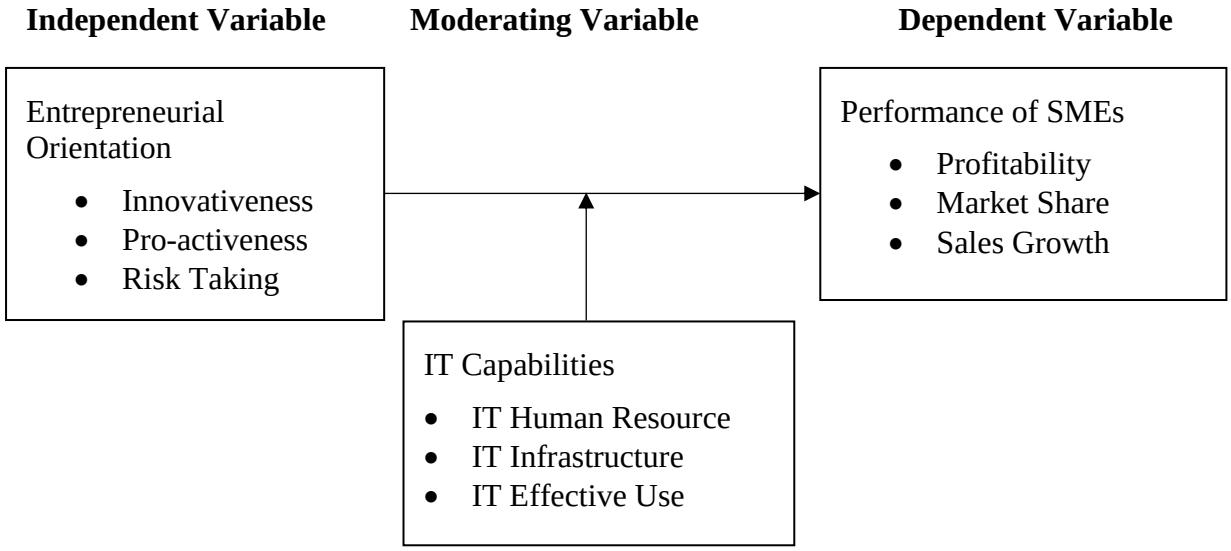


**Figure 1: Conceptual Framework**

## 3. METHODOLOGY

The study adopted a cross-sectional survey research design and, the targeted population was SMEs. The sample population was a census of top 100 Small and Medium-sized firms which were surveyed by Nation Media Group and KPMG Audit and Management firm for the year 2017. Self-administered semi-structured questionnaires were used to collect primary data. Secondary data was obtained from published sources. A pilot study was conducted before collection of primary data using a sample of 10 similar firms. The pilot study goal was to test both the reliability and validity of the research instruments. The reliability was assessed with the use of Cronbach's alpha. The analysis of the primary data was carried out using SPSS version 22. Descriptive statistics were tabulated into percentages of participants' responses. Correlation analysis was used to determine the association between variables while regressions analysis was used to evaluate inferential statistics for the hypothesis.

## 4. RESULTS AND DISCUSSION

### Reliability of Research Instrument

Cronbach Alpha was used to determine the reliability of the questionnaire. The overall Cronbach Alpha was 0.880 which was found to be very good and hence the research instrument was reliable for the current study. George and Mallery (as cited in Kimaku, Omwenga & Nzulwa, 2019) stated that the reliability of the constructs were acceptable based on the rule that when Cronbach's alpha value is greater than 0.9, it is considered excellent; when the value is 0.8 is deemed very good and when it is 0.7, it is rated as good.

**Table 1: Overall reliability coefficients**

| S/No. | Variable | No. of Items | Cronbach Alpha Value | Remarks |
|---|---|---|---|---|
| 1 | Entrepreneurial Orientation | 5 | 0.856 | Very Good |
| 2 | Information technology capability | 20 | 0.906 | Excellent |
| 3 | Performance of Small and Medium Size (SME) firms | 15 | 0.879 | Very Good |
| | **AVERAGE** | | **0.880** | **Very Good** |

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Journal of Entrepreneurship & Project Management
Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

## Descriptive Analysis

### *Entrepreneurial Orientation*

On the independent variable Entrepreneurial Orientation, to obtain information, several statements were asked to the respondents, who were required to provide feedback on a Likert scale of one (1) to five (5), for 1 being strongly agree, 2 being agree, 3 being neither agree nor disagree, 4 being disagree and 5 being strongly disagree to the statements. On the statement "We have launched many new products/services on the market during the last 5 years." 37.5% of the respondents strongly agreed to the statement, 43.8% of the respondents agreed to the statement whereas 15.6% of the respondents neither agreed nor disagreed with the statement whereas 3.1% disagreed with the statement, with a mean of 1.84 and standard deviation 0.799. On the statement "The changes introduced during our product/service are important", 35.4% strongly agreed to the statement, 57.3% of the respondents agreed and 7.3% of the respondents neither agreed nor disagreed with the statement, with a mean of 1.72 and standard deviation 0.593. Regarding the statement "We usually beat our competitors in developing innovative action", 46.9% strongly agreed to the statement, 43.8% agreed to the statement, 6.3% of the respondents neither agreed nor disagreed with the statement whereas 3.1% of the respondents disagreed with the statement, with a mean of 1.66 and standard deviation 0.737.

On the statement "We usually adopt an aggressive attitude towards our competitors", 43.8% strongly agreed to the statement, 44.8% of the respondents agreed to the statement, 7.3% of the respondents neither agreed nor disagreed with the statement, whereas 4.2% of the respondents agreed to the statement, with a mean of 1.72 and standard deviation 0.777. Lastly, on the statement "We tend to carry out risky projects when they involve profitable opportunities" 41.7% strongly agreed to the statement, 47.9% of the respondents agreed to the statement, 7.3% neither agreed nor disagreed with the statement, whereas 3.1% of the respondents disagreed to the statement, with a mean of 1.72 and standard deviation 0.736.

**Table 2: Entrepreneurial orientation frequencies**

| Entrepreneurial Orientation | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| We have launched many new products/services on the market during the last 5 years | 37.5 | 43.8 | 15.6 | 3.1 | - | 1.84 | .799 |
| The changes introduced during our product/service are important | 35.4 | 57.3 | 7.3 | - | - | 1.72 | 0.593 |
| We usually beat our competitors in developing innovative action | 46.9 | 43.8 | 6.3 | 3.1 | - | 1.66 | .737 |
| We usually adopt an aggressive attitude towards our competitors | 43.8 | 44.8 | 7.3 | 4.2 | - | 1.72 | 0.777 |
| We tend to carry out risky projects when they involve profitable opportunities | 41.7 | 47.9 | 7.3 | 3.1 | - | 1.72 | 0.736 |
| **AVERAGE** | | | | | | **1.73** | **0.728** |

***Information Technology Capabilities***

In order to acquire information about the moderating variable ICT capabilities, several statements were asked to the respondents, who were required to provide feedback on a Likert scale of one (1) to five (5), with 1 being strongly agree, 2 being agree, 3 being neither agree nor disagree, 4 being disagree and 5 being strongly disagree to the statements. On the statement "Our staff has very good technical knowledge, they are one of the best technical groups an IT department could have" 34.4% of the respondents strongly agreed to the statement whereas 65.6% of the respondents agreed to the statement, with a mean of 1.66 and standard deviation 0.477. On the statement "Our IT staff has the ability to quickly learn and apply new technologies as they become available", 42.7% of the respondents strongly agreed to the statement while 57.3% of the respondents agreed to the statement, with a mean of 1.57 and standard deviation 0.497. Regarding the statement "Our IT staff has the skills and knowledge to manage IT projects in the current Business environment", 28.1% strongly agreed to the statement whereas 71.9% of the respondents agreed to the statement, with a mean of 1.72 and standard deviation 0.454.

On the statement "Our IT can work closely with customers and maintain productive user or client relationships", 40.6% of the respondents strongly agreed the statement while 59.4% of the respondents agreed to the statement, with a mean of 1.59 and standard deviation 0.494. On the statement "Our IT staff understands our organizational procedures and policies very well" 49.0% of the respondents strongly agreed to the statement while 51.0% of the respondents agreed to the statement, with a mean of 1.51 and a standard deviation of 0.503. On the statement "Our It staff is aware of the core beliefs and values of our organization", 56.3% strongly agreed the statement, while 43.7% of the respondents agreed to the statement, with a mean of 1.44 and standard deviation of 0.499.

On the statement "Our IT staff knows who are responsible for important tasks in the organizations" 54.2% of the respondents strongly agreed to the statement whereas 45.8% of the respondents agreed to the statement, with a mean of 1.46 and standard deviation 0.501. On the statement "The technology infrastructure needed to electronically link our business unit is present and in place today", 43.8% of the respondents strongly agreed to the statement, 49.0% of the respondents agreed to the statement while 7.3% neither agreed nor disagreed to the statement, with a mean of 1.64 and standard deviation 0.618. Regarding the statement "The technology infrastructure needed to electronically link our firm with external business partners (Key customers, suppliers, alliances) is present and in place today", 24.0% of the respondents strongly agreed to the statement, 68.8% of the respondents agreed to the statement while 7.3% neither agreed nor disagreed to the statement, with a mean of 1.83 and standard deviation 0.536.

On the statement "Corporate data is currently sharable across business units and organizational boundaries are in place today", 32.3% of the respondents strongly agreed to the statement, 58.3% of the respondents agreed to the statement while 9.4% neither agreed nor disagreed to the statement, with a mean of 1.77 and standard deviation 0.607. On the statement "We have standardized the various components of our technology infrastructure" 25.0% of the respondents strongly agreed to the statement, 67.7% of the respondents agreed to the statement while 7.3% neither agreed nor disagreed to the statement, with a mean of 1.82 and standard deviation 0.543. On the statement "Our staff use IT system to decide how best to approach a problem", 17.7% of the respondents strongly agreed to the statement, 40.6% of the respondents agreed to the statement, 36.5% neither agreed nor disagreed to the statement while 5.2% strongly disagreed to the statement, with a mean of 2.29 and standard deviation 0.820.

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Journal of Entrepreneurship & Project Management
Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

On the statement "Our staff use IT system to help them think through a problem", 17.7% of the respondents strongly agreed to the statement, 58.3% of the respondents agreed to the statement while 24.0% neither agreed nor disagreed to the statement, with a mean of 2.06 and standard deviation 0.646. On the statement "Our staff use IT system to help them explain and justify their decision" 22.9% of the respondents strongly agreed to the statement, 53.1% of the respondents agreed to the statement while 24.0% neither agreed nor disagreed to the statement, with a mean of 2.01 and standard deviation 0.688. On the statement "Our staff use IT system to rationalize their decisions", 22.9% of the respondents strongly agreed to the statement, 60.4% of the respondents agreed to the statement, 11.5% neither agreed nor disagreed to the statement while 5.2% strongly disagreed to the statement, with a mean of 1.99 and standard deviation 0.747.

On the statement "Our staff use IT system to improve effectiveness and efficiency of the decision process", 35.4% of the respondents strongly agreed to the statement, 60.4% of the respondents agreed to the statement while 4.2% neither agreed nor disagreed to the statement, with a mean of 1.69 and standard deviation 0.549. On the statement "Our staff use It system to communicate and exchange information with other people in their work group" 50.0% of the respondents strongly agreed to the statement, 43.8% of respondents agreed to the statement while 6.2% neither agreed nor disagreed to the statement, with a mean of 1.56 and standard deviation 0.612. On the statement "Our staff use IT system to communicate and exchange information with people who report to them", 53.1% of the respondents strongly agreed to the statement, 34.4% of the respondents agreed to the statement, while 12.5% neither agreed nor disagreed to the statement, with a mean of 1.59 and standard deviation 0.705.

**Table 3: Information Technology Capabilities frequencies**

| IT Capabilities | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| Our staff has very good technical knowledge, they are one of the best technical groups an IT department could have | 34.4 | 65.6 | - | - | - | 1.66 | 0.477 |
| Our IT staff has the ability to quickly learn and apply new technologies as they become available | 42.7 | 57.3 | - | - | - | 1.57 | 0.497 |
| Our IT staff has the skills and knowledge to manage IT projects in the current Business environment | 28.1 | 71.9 | - | - | - | 1.72 | 0.452 |
| Our IT can work closely with customers and maintain productive user or client relationships | 40.6 | 59.4 | - | - | - | 1.59 | 0.494 |
| Our IT staff understands our organizational procedures and policies very well | 49.0 | 51.0 | - | - | - | 1.51 | 0.503 |
| Our It staff is aware of the core beliefs and values of our organization | 56.3 | 43.7 | - | - | - | 1.44 | 0.499 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Our IT staff knows who is responsible for important tasks in the organizations | 54.2 | 45.8 | - | - | - | 1.46 | 0.501 |
| The technology infrastructure needed to electronically link our business unit is present and in place today | 43.8 | 49.0 | 7.3 | - | - | 1.64 | 0.618 |
| The technology infrastructure needed to electronically link our firm with external business partners (i.e. Key customers, suppliers, alliances) is present and in place today | 24.0 | 68.8 | 7.3 | - | - | 1.83 | 0.536 |
| Corporate data is currently sharable across business units and organizational boundaries are in place today | 32.3 | 58.3 | 9.4 | - | - | 1.77 | 0.607 |
| We have standardized the various components of our technology infrastructure | 25.0 | 67.7 | 7.3 | - | - | 1.82 | 0.543 |
| Our staff use IT system to decide how best to approach a problem | 17.7 | 40.6 | 36.5 | - | 5.2 | 2.29 | 0.820 |
| Our staff use IT system to help them think through a problem | 17.7 | 58.3 | 24.0 | - | - | 2.06 | 0.646 |
| Our staff use IT system to help them explain and justify their decision | 22.9 | 53.1 | 24.0 | - | - | 2.01 | 0.688 |
| Our staff use IT system to rationalize their decisions | 22.9 | 60.4 | 11.5 | - | 5.2 | 1.99 | 0.747 |
| Our staff use IT system to improve effectiveness and efficiency of the decision process | 35.4 | 60.4 | 4.2 | - | - | 1.69 | 0.549 |
| Our staff use It system to communicate and exchange information with other people in their work group | 50.0 | 43.8 | 6.2 | - | - | 1.56 | 0.612 |
| Our staff use IT system to communicate and exchange information with people who report to them | 53.1 | 34.4 | 12.5 | - | - | 1.59 | 0.705 |
| Our staff use IT system to communicate and exchange information with people they report to | 52.1 | 41.7 | 6.3 | - | - | 1.54 | 0.614 |
| Our staff use IT systems to serve internal and or external customers | 40.6 | 44.8 | 14.6 | - | - | 1.74 | 0.700 |
| Our staff use IT system to improve quality of customer service | 32.3 | 61.5 | 6.2 | - | - | 1.74 | 0.567 |
| Our staff use IT system to more creatively serve customers | 26.0 | 55.2 | 18.8 | - | - | 1.93 | 0.669 |
| Our staff use IT system to exchange information with internal and/or external customers | 34.4 | 57.3 | 8.3 | - | - | 1.74 | 0.603 |
| **AVERAGE** | | | | | | **1.73** | **0.593** |

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Journal of Entrepreneurship & Project Management
Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

***Performance of SMEs***

**Table 4: Performance of SME frequencies**

| Performance of SMEs | 0 – 20% | 21 – 40% | 41 – 60% | 61 – 80% | 81 – 100% | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| Average Pre-tax Profits 2013 | 53.1 | 30.2 | 16.7 | - | - | 1.64 | .756 |
| Average Pre-tax Profits 2014 | 42.7 | 32.3 | 25.0 | - | - | 1.82 | 0.808 |
| Average Pre-tax Profits 2015 | 34.3 | 33.3 | 32.3 | - | - | 1.98 | 0.821 |
| Average Pre-tax Profits 2016 | 27.1 | 44.8 | 28.1 | - | - | 2.01 | 0.747 |
| Average Pre-tax Profits 2017 | 25.0 | 44.8 | 30.2 | - | - | 2.05 | 0.745 |
| Sales Growth 2013 | 67.7 | 20.8 | 11.5 | - | - | 1.44 | 0.693 |
| Sales Growth 2014 | 44.8 | 41.7 | 13.5 | - | - | 1.53 | 0.695 |
| Sales Growth 2015 | 41.7 | 39.6 | 18.8 | - | - | 1.69 | 0.701 |
| Sales Growth 2016 | 45.8 | 32.3 | 19.8 | - | - | 1.77 | 0.747 |
| Sales Growth 2017 | 45.8 | 32.3 | 19.8 | 2.1 | - | 1.78 | 0.836 |
| Market Share Growth 2013 | 86.5 | 8.3 | 3.1 | - | 2.1 | 1.23 | 0.703 |
| Market Share Growth 2014 | 79.2 | 18.8 | - | - | 2.1 | 1.27 | 0.672 |
| Market Share Growth 2015 | 66.7 | 31.3 | - | - | 2.1 | 1.40 | 0.703 |
| Market Share Growth 2016 | 69.8 | 28.1 | - | - | 2.1 | 1.36 | 0.698 |
| Market Share Growth 2017 | 63.5 | 34.4 | - | - | 2,1 | 1.43 | 0.707 |
| **AVERAGE** | | | | | | **1.63** | **0.735** |

**Regression Analysis**

The study adopted simple linear regression to establish the relationship between the Entrepreneurial Orientation and performance of SMEs. From Table 5 (ii), the regression model of $X_1$ and Y was not significant with F(1,94) = 1.691, p-value =0.197), inferring that entrepreneurial orientation was a valid predictor in the model. The Coefficient of determination $R^2$ of 0.018 showed that 1.8% of performance of small and medium enterprises is explained by entrepreneurial orientation. The remaining percentage of performance of small and medium enterprises can be explained by other factors not included in the model. The R of 0.133 from Table 4.18(i) shows there is a weak positive correlation between entrepreneurial orientation and the performance of small and medium enterprises in Kenya.

From hypothesis 1 (one) of the study, **$H_{01}$**: There is no significant relationship between entrepreneurial orientation and performance of SMEs in Kenya, the study findings revealed that there was a positive but not significant relationship between entrepreneurial orientation and performance of small and medium enterprises in Kenya.

The results were fitted in the Model $\mathbf{Y= \beta_0 + \beta_1 X_1 + e}$

The study therefore failed to reject the null hypothesis (**$H_{01}$**: There is no significant relationship between entrepreneurial orientation and performance of SMEs in Kenya) and concluded that entrepreneurial orientation ($X_1$) did not influence performance of SMEs in Kenya (Y).

The Model equation therefore became $Y= 1.322 + 0.176\ X_1$

Where;

Y is performance of small and medium enterprises in Kenya

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Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

$X_1$ is entrepreneurial orientation

The beta coefficient value for entrepreneurial orientation (0.176) meant that for every one (1) unit increase in the dimension of entrepreneurial orientation in small and medium enterprises, it leads to a 0.176 increase in performance of small and medium enterprises as shown in Table 5(iii).

**Table 5: Regression analysis for construct Entrepreneurial Orientation**

i) **Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .133[a] | .018 | .007 | .472 | .018 | 1.691 | 1 | 94 | .197 |

a. Predictors: (Constant), $X_1$
b. Dependent Variable: Y

ii) **ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .377 | 1 | .377 | 1.691 | .197[b] |
| | Residual | 20.969 | 94 | .223 | | |
| | Total | 21.346 | 95 | | | |

a. Dependent Variable: Y
b. Predictors: (Constant), $X_1$

iii) **Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 1.322 | .239 | | 5.538 | .000 | | |
| | $X_1$ | .176 | .135 | .133 | 1.300 | .197 | 1.000 | 1.000 |

a. Dependent Variable: Y

### *Discussion of the findings on relationship between entrepreneurial orientation and performance of SMEs in Kenya*

The R-value (correlation coefficient, r = 0.133) indicated that there was a weak positive correlation between entrepreneurial orientation and performance of SMEs. This was an indication that entrepreneurial orientation had a weak influence on the performance of SMEs in Kenya. The p- p-value>0.05 signified that entrepreneurial orientation was statistically insignificant at 5% level of significance, implying that entrepreneurial orientation has a positive effect on the performance of SMEs in Kenya. The study therefore did not reject the null hypothesis **$H_{01}$**: that there is no significant relationship between entrepreneurial orientation and performance of SMEs in Kenya.

The findings are in coherent with the research studies conducted by various scholars including Smart and Conant (1994) and Schultz (1994). Slater and Naver (2000) also did not find any significant relationship between EO and firm performance. In a study sample of 306 Vietnamese and 107 Thai SMEs firms, Swiercczek and Ha (2003) found partial positive relationship between EO and SME firm performance. Fauzul et al. (2010) in a study of Sri Lanka firms showed no significant relation among innovativeness, proactiveness, risk taking, and the overall EO on growth of firm. Similarly, Moreno and Casillas (2008) reported similar results.

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Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

**Test of Moderating Variable**

To test whether information technology capability had any effect on the relationship between entrepreneurial orientation and the performance of SMEs in Kenya, regression analysis was conducted as shown in Table 6 below. The study tested hypothesis, **$H_{02}$**: Information technology capability has no moderation effect on the relationship between entrepreneurial orientation and the performance of SMEs in Kenya.

The results were fitted in three models as shown below

**Model 1: $Y = \beta_0 + \beta_1 X_1 + e$**

**Model 2: $Y = \beta_0 + \beta_1 X_1 + \beta_M M + e$**

**Model 3: $Y = \beta_0 + \beta_1 X_1 + \beta_M M + \beta_{1M} X_1 M + e$**

Where:

Y = Performance of SMEs,

$X_1$ = Entrepreneurial Orientation

M = Information technology capability

$X_1M$ = Interaction term

e = error term

From Table 6(ii), the results show that the three regression models 1, 2 & 3 were not significant. Their F values were 1.691, 0.967, and 1.520, with p-values of 0.197, 0.384 and 0.215 respectively. The Coefficient of determination $R^2$ for the first model (model 1) was 0.018, which was significant, showing that 1.8% of performance of SMEs can be explained by entrepreneurial orientation alone. In Model 2, upon introduction of information technology capability, the coefficient of determination $R^2$ changed from 0. 018 to 0.020, which was insignificant. Further, upon introduction of the interaction term $X_1M$ into the model, as shown in Model 3, the $R^2$ value additionally increased to 0.047, which was insignificant. This implied that 4.7% of the performance of SMEs can be explained by entrepreneurial orientation, information technology capability, and the interaction term $X_1M$. The remaining 95.3% of performance of SMEs is explained by other factors not included in the model. The R values of the three models (0.133, 0.143, and 0.217) from Table 6(i) showed weak positive correlation.

The F change for entrepreneurial orientation ($X_1$) was statistically insignificant (F = 1.691, p value=0.1971), which implied that entrepreneurial orientation did not have any statistical influence on the performance of SMEs in Kenya. Upon introduction of a moderating variable (information technology capability), the F-Change decreased which was statistically insignificant (F = 0.256, p =0.614). Similarly, when the interaction term ($X_1M$) was introduced in the model, the F-Change presented an insignificant positive increase (F=2.593, p=0.111). This implied that information technology capability affected the relationship between entrepreneurial orientation and performance of SMEs in Kenya. This therefore implies that the null hypothesis **$H_02$:** Information technology capability has no moderation effect on the relationship between entrepreneurial orientation and the performance of SMEs in Kenya was not rejected and thus concluded that Information technology had no effect on the relationship between entrepreneurial orientation and performance of SMEs in Kenya.

The fitted models therefore became

**$Y = 1.322 + 0.176X_1$**

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Vol. 3||Issue 2||pp 19-35||October||2023
Email: info@edinburgjournals.org||ISSN: 2789-2115

**$Y = 1.193 + 0.172X_1 + 0.078M$**

**$Y = -.0393 + 1.150X_1 + 1.086M - 0.617X_1M$**

The regression results were as shown in Table 6(iii) below.

**Table 6: Regression analysis for the moderating effect of Information technology capability on the relationship between entrepreneurial orientation and performance of SMEs in Kenya**

i) **Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics R Square Change | F Change | df1 | df2 | Sig. F Change |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .133[a] | .018 | .007 | .472 | .018 | 1.691 | 1 | 94 | .197 |
| 2 | .143[b] | .020 | -.001 | .474 | .003 | .256 | 1 | 93 | .614 |
| 3 | .217[c] | .047 | .016 | .470 | .027 | 2.593 | 1 | 92 | .111 |

a. Predictors: (Constant), X1
b. Predictors: (Constant), X1, M
c. Predictors: (Constant), X1, M, X1M
d. Dependent Variable: Y

ii) **ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .377 | 1 | .377 | 1.691 | .197[b] |
| | Residual | 20.969 | 94 | .223 | | |
| | Total | 21.346 | 95 | | | |
| 2 | Regression | .435 | 2 | .217 | .967 | .384[c] |
| | Residual | 20.912 | 93 | .225 | | |
| | Total | 21.346 | 95 | | | |
| 3 | Regression | 1.008 | 3 | .336 | 1.520 | .215[d] |
| | Residual | 20.338 | 92 | .221 | | |
| | Total | 21.346 | 95 | | | |

a. Dependent Variable: Y
b. Predictors: (Constant), X1
c. Predictors: (Constant), X1, M
d. Predictors: (Constant), X1, M, X1M

iii) **Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 1.322 | .239 | | 5.538 | .000 | | |
| | X1 | .176 | .135 | .133 | 1.300 | .197 | 1.000 | 1.000 |
| 2 | (Constant) | 1.193 | .351 | | 3.402 | .001 | | |
| | X1 | .172 | .136 | .130 | 1.268 | .208 | .998 | 1.002 |
| | M | .078 | .154 | .052 | .506 | .614 | .998 | 1.002 |
| 3 | (Constant) | -.393 | 1.044 | | -.376 | .708 | | |
| | X1 | 1.150 | .622 | .870 | 1.849 | .068 | .047 | 21.391 |
| | M | 1.086 | .644 | .724 | 1.685 | .095 | .056 | 17.805 |
| | X1M | -.617 | .383 | -1.037 | -1.610 | .111 | .025 | 40.033 |

a. Dependent Variable: Y

***Discussion on the moderating effect of Information technology capability on the relationship between entrepreneurial orientation and performance of SMEs in Kenya***

From Table 6(iii), model 1 shows entrepreneurial orientation beta of 0.176 ($\beta$ =0.176, t = 1.300, p-value=0.197) implying it was statistically insignificant, meaning that entrepreneurial orientation alone contributed 0.176 to the performance of SMEs in Kenya. Likewise, in model 2 when information technology capability was introduced and combined with entrepreneurial orientation, the beta value decreased to ($\beta$ =0.172, t = 1.268, p-value=0.208) which is also statistically insignificant. The beta for information technology capability 0.078 ($\beta$ =0.078, t = 0.506, p-value=0.208) hence statistically insignificant.

When the interaction term ($X_1$*M) was introduced, entrepreneurial orientation still presented an insignificant effect on performance of SMEs, which was an increase, with beta of 1.150 ($\beta$ =1.150, t =1.849, p-value=0.608). The beta for information technology capability was 1.086 ($\beta$ =1.086, t = 1.685, p-value=0.095) hence statistically insignificant. The interaction term ($X_1$*M) beta was -0.617 ($\beta$ =-0.617, t =-1.610, p-value=0.111) implying statistically insignificant. From the results, it is clear that in the presence of information technology capability, the contribution of entrepreneurial orientation towards the performance of SMEs is insignificant. The results supported the earlier views that information technology capability moderates the relationship between entrepreneurial orientations towards the performance of SMEs in Kenya.

## 5. CONCLUSION

The study concludes that it is important for SME firms to build entrepreneurial capacities to enhance performance. SME to realize that because of globalization, shorter life cycles of products, and continuous improvements in technology, the current external business environment has come to be very dynamic, competitive, and complex. There is a need for managers and CEOs to pay more attention to internal capabilities, especially EO (Jabeen & Mahmood, 2014), to sustain their competitive advantage.

Business managers may organize periodical training sessions for the employees to enhance their level of EO so that they improve firm performance by tapping potential entrepreneurial opportunities. Throughout operational processes, SME firms encounter turbulent markets, a narrow scope for business opportunities, and fierce competition. Their limitations can be, to some extent, tackled by adopting EO as a means of a strategic approach (Hossain and Rahman, 2019); through which managers can act as proactive, creative, and risk-taker that would certainly differentiate them from their market rivals.

However as indicated by Samantha and Premaratne (2013), it is also important for SME owners to understand the behavior of firm performance with continuous effort to increase the level of EO in their firms, the linkage between EO and firm performance is curvilinear and therefore increasing its effort reaches maximum depending on the resources and objective of the firm.

## 6. RECOMMENDATIONS

Findings from the study have shown that EO affects SME performance positively. SME managers therefore need to put in place resources and mechanisms that encourage and support entrepreneurial activities. Such activities such as encouraging innovation, product offering and continuously assessing risk. From the study EO was not significant however scholars suggest that the implementation requires the management to evaluate the resources of the firm and the objective. Studies suggest that the EO influence on firm performance is not linear and therefore adoption reaches an optimal level with resources and objective consideration.

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