

Innovation Capability Strategy and Firm Performance in The Furniture Manufacturing Sector in Kenya

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ABSTRACT

The study sought to examine the contribution of innovation capability in strategy implementation on the firm performance of the furniture manufacturing sector in Kenya. It utilized a descriptive and explanatory research design with a population consisting of 686 managerial staff in the furniture manufacturing sector. The sample of 280 licensed firms was randomly selected by distributing questionnaires to the managers. A factor analysis was used to reduce the number of variables and establish the underlying constructs while analysis of moments of structures was applied to develop theory. It was found that innovation capability had a positive and statistically significant contribution to firm performance. The firm size and firm age were found not to have a moderating effect on the firm performance. The study provides an expansion of the conceptualization of the innovation capability framework. The findings showed that - in order to respond effectively to the business environment that has become so dynamic - firms particularly in the manufacturing sector need to find creative ways of adjusting their strategy implementation tactics in line with changes in the business environment.

ABSTRAK

Penelitian ini berusaha untuk menguji kontribusi kapabilitas inovasi dalam implementasi strategi pada kinerja perusahaan di sektor manufaktur furnitur di Kenya. Penelitian ini menggunakan desain penelitian deskriptif dan eksplanatori dengan populasi sebanyak 686 orang staf manajerial di bidang manufaktur mebel. Sampel dari 280 perusahaan berlisensi dipilih secara acak dengan menyebarkan kuesioner kepada para manajer. Analisis faktor digunakan untuk mengurangi jumlah variabel dan menetapkan konstruksi yang mendasarinya sementara analisis momen struktur diterapkan untuk mengembangkan teori. Ditemukan bahwa kemampuan inovasi memiliki kontribusi positif dan signifikan secara statistik terhadap kinerja perusahaan. Ukuran perusahaan dan usia perusahaan ditemukan tidak memiliki pengaruh moderasi terhadap kinerja perusahaan. Penelitian ini memberikan kontribusi pada perluasan konseptualisasi kerangka kemampuan inovasi. Temuan bahwa – untuk merespon secara efektif lingkungan bisnis yang telah menjadi begitu dinamis – perusahaan khususnya di sektor manufaktur perlu menemukan cara-cara kreatif untuk menyesuaikan taktik implementasi strategi mereka sesuai dengan perubahan lingkungan bisnis.

1. INTRODUCTION

Innovation capability of a firm is linked to the internal efforts of human, technological and organizational resources, combined with the ability to interact with the external environment to pursue resources, knowledge and skills. All these are incorporated into the organization to create new products and processes that are perceived and valued by stakeholders (Silva et al., 2020). The fact that the world furniture manufacturing industry has been revolutionized over the past several decades,

most of the commercial and production furniture is created by large machinery, much of it automated and controlled by computer. The prevalence of high-tech machinery increases the accuracy and speed of manufacture, but also removes much of the craftsmanship involved. When used well and with high-quality materials, machines can make solid and attractive furniture.

Despite the rapid technological development, the Kenyan furniture manufacturing sector suffers from lack of raw materials and components,

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availability of skilled labor, low investment in technology, R&D, innovation, design and relevant policies affecting the sector (Atta-Ankomah, 2016). With the rapidly increasing penetration of mobile technology and the growing popularity of online shopping, the Kenyan furniture manufacturing sector is not adapting to the changing times. Hence, innovation capability is considered the best way to promote the stagnating furniture manufacturing sector because value creation results in a better-balanced economic structure and increased competitiveness is the most preferred route towards import substitution and export promotion (Naala et al., 2017; Rajapathirana & Hui, 2018; Sahoo, 2019; Saunila, 2014).

According to Almajali et al. (2017), the business environment is becoming more uncertain and unpredictable for both profit and non-profit organizations. Hence, managers and leaders of various firms must think, learn and act strategically. The central thrust of a company's strategy is the undertaking of moves to build and strengthen its long-term competitive position and financial performance by gaining a competitive advantage over rivals and being able to earn the company above-average profitability (Obeidat et al., 2017). Implementing the organization strategic plan is more important than its strategy because failure to actualize the strategy can render opportunity lost (Balarezo, et al., 2017). It is noted through a review of the published literature that many organizations do not succeed in implementing more than 70 per cent of their new strategic plans and 30 per cent fail to achieve anything at all (Miller, 2016).

In Kenya, a number of past studies have mainly focused on the nexus between strategic planning practices and performance of the firm. Some studies have focused on the influence of strategy implementation and organization performance (Awino et al., 2011; Bunyasi et al., 2014; Gathogo & Ragui, 2014; Gakure & Amurle, 2013; Kiganane et al., 2012), but there are very limited studies that examine the effect of innovation strategy on company performance. Chege & Wang (2020) is the only researchers that examine the effect of information technology innovation on the performance of 240 small and medium-sized companies in various industries in Kenya. There no study that examines the impact of innovation capability strategy on firm performance in Kenya. Therefore, there is a need for a research to scientifically explore the contribution of innovation capability in strategy implementation on the performance of the furniture manufacturing firms in

Kenya. This study, therefore, can contribute to the body of knowledge of strategic management and, more specifically, the strategy implementation. Since most of the studies reviewed focused on the strategy formulation in the developed world ignoring the developing world, a few studies focused on the manufacturing sector and no study has been carried out locally in Kenya focusing on the contribution of strategy implementation on the performance of the furniture manufacturing sector.

The government of Kenya recognizes that the performance of the furniture sector is crucial both for employment and economic growth in the country. Despite the government's initiatives on the development of the furniture manufacturing sector, poor performance is still reported. Rapid technological development has not been fully adopted in the furniture manufacturing sector in Kenya. The production declined sharply when timber supply from the natural forests reduced due to government bans to sustainably manage the watersheds in the mountain regions (World Bank, 2013). Logging bans is still a major source of uncertainty with regard to input supply coupled with historically limited local demand. This has led to lower investment in upgrading technology, expanding manufacturing facilities and updating employee skills. Despite encouraging market growth, firms have neither invested in serial production facilities nor developed the necessary networks with other parts of the supply-chain to enable them produce en-mass. The firms are slowly being edged out of the market as cheap furniture imports from China, Malaysia and the United States of America continue to flood the market (World Bank Report, 2014).

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Resources Based-View Theory

This study adopted a resource based-view theory to explain the influence of innovation capability on firm performance. The Resource based-view of strategic management (RBV) theory has been introduced by Penrose (1959) as being the inside-out perspective of firm as a "pool of resources" attributing to its competitive advantage. Later on, the theory has been further developed by several researchers such as Grant & Verona (2015). Resource-based view is based on two assumptions; first, the heterogeneous base of firms' resources and internal capabilities and second, their distinctiveness to encourage firms' competitive advantage via resource immobility. The RBV theory

points that firms' competitiveness even in the same industry varies based on a firm's resources and capabilities (Barney, 2012). A firm's strategic resources include tangible resources such as human, physical and financial components and intangible resources such as brand name, reputation, innovations and knowledge.

For wood products industry—in a case study of Finnish large and medium sawmills—the business success of case sawmills was strongly impacted by four intangible resources including personnel, collaboration, technological know-how, reputation and services and two tangible resources including raw material and geographic location. Resources in a firm can be either internal or external to the firm and may be acquired or already owned by the firm (Kash et al., 2014). The process through which a firm coordinates and deploys these resources will eventually affect its competitive advantage. Furthermore, as an extension of resource-based-view theory, Teece (2014) has introduced dynamic capability view to emphasize the necessity of resources to firstly, adapt to business context and secondly, adapt to the dynamic environmental conditions in order to maintain a firm's sustained competitive advantage. In other words, dynamic capabilities reflect firms' adaptability responding to rapidly changing business environment.

According to Okumus (2003), leadership is crucial in using the process factors and in manipulating the internal environment to create a context receptive to change. Key issues considered here include the actual involvement of the CEO in the strategy formulation and implementation process, the level of support and backing from the CEO to the new strategy until it is completed and the open and covert messages coming from the CEO about the project and its importance. The third group includes the organizational processes which incorporate operational planning. This is the process of initiating the project and the operational planning of implementation activities and tasks. Issues dealt with include preparing and planning implementation activities, participation and feedback from different levels of management and functional areas in preparing operational plans and implementing activities, initial pilot projects and knowledge gained from them and the time scale for making resources available and using them. The second key variable in the organizational process is resource allocation which ensures that all the necessary time, financial resources, skills and knowledge are made available.

Innovation Capability

Innovation capability represents today's competitive advantage, supported by strong mainstream capabilities in quality, efficiency, speed, and flexibility. Innovation can enable firms to play a dominant role in shaping the future of their industries (Battor & Battor, 2013). High performing innovators are able to maintain a giant juggling act of capabilities and consistently bring new high-quality products to the market faster, more frequently and at a lower cost than competitors. According to Kuratko et al. (2015), innovations constitute an indispensable component of the corporate strategies for several reasons such as to apply more productive manufacturing processes, perform better in the market, seek positive reputation in customers' perception and as a result to gain sustainable competitive advantage. Innovations provide firms with a strategic orientation to overcome the problems they encounter while striving to achieve sustainable competitive advantage.

According to Ansari (2013), organizations must deploy technologies that fit their selected strategies in order to enhance the implementation process. Today, organizations are under increased pressure to deploy radical and innovative technologies in the way they implement their strategy in order to boost their chances of success. Sibanda & Ramrathan (2017) explained that modern technologies provide the means for enhancing the effectiveness of strategic communication. Technology may also facilitate the transformation of business processes in line with the plans stipulated in the company's strategy. Babu (2018) noted that initially, technology was considered as an enabler of the strategic management process, but today, its role has been elevated to that of effective decision-making that contributes to competitive advantage. Technology can help an organization to detect changes in its business environment, simulate different scenarios, and assess large amount of information leading to improved decision making. Innovation as a term is not only related to products and processes, but it is also related to marketing and organization.

According to Drucker (2013), innovation is the process of equipping new improved capabilities or increased utility. Fagerberg et al. (2014) stressed that—while the introduction of new products is commonly assumed to have a clear and positive contribution on the growth of income and employment and due to its cost-cutting nature—process innovation can have a more significant effect. According to Li et al. (2017), innovativeness is

one of the fundamental instruments of growth strategies to enter new markets, increase the existing market share and providing the company with a competitive edge. Having been motivated by the increasing competition in global markets, companies have started to grasp the importance of innovation. This is because of the swiftly changing technologies and severe global competition rapidly eroding the value added of existing products and services. Product innovation is the introduction of a good or service that is new or significantly improved regarding its characteristics or intended uses, including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional.

Innovation Capability and Firm Performance

Innovation is a major determinant of strategy implementation effectiveness and sustained organizational performance (Friis et al., 2014). Kamande & Orwa (2015) noted that innovation is a multifaceted concept that incorporates different aspects such as development of new technologies, new products and markets, new methods, and procedures). Development of new technologies is one of the aspects of innovation that has been linked to strategy implementation success.

Innovation is essential for achieving a competitive advantage in start-ups and established companies (Lichtenthaler, 2020). In addition, innovation capability enables organizations apply requisite and appropriate technologies to develop new products, meet the market needs, and survive competitions (Rajapathirana & Hui, 2018). Previous research studies have established a positive relationship between innovation and firm performance (Chege & Wang, 2020; Handayani & Handoyo, 2020; Rajapathirana & Hui, 2018; Rosli & Sidek, 2013; Saunila et al., 2014). Some of these empirical findings have shown that, innovation types have significant effect on firm performance in terms of return on investment, market share, competitiveness of firms, and customer value. Organizational innovation can, thus, improve organizational performance through cost reduction, as well as improvement in employee and customer satisfaction (Yesheng & Ibrahim, 2019). Yavarzadeh & Dashtbozorg (2015) explored the relationship between organizational innovation and performance in Iran and found that, innovation dimensions including organizational innovation positively influence organizational performance.

H₁: There is a positive relationship between innovation capability and the performance of the furniture manufacturing firms in Kenya

Firm Size, Age, and Performance

Firm level characteristics related to size and age have been found in the past studies to have a moderating effect on organizations performance. Firm size is a variable that is widely acknowledged to influence the firm's performance. Some scholars have agreed that the size and age of the firm would likely determine the growth of the firm (Chun et al., 2015; Uhlaner et al., 2014; Yildiz et al., 2013). They claimed that the critical level the company would go through would decrease over time, whereas the survival ability would increase along with the age of the firm. Vanpoucke et al. (2014) showed that firm size can influence the implementation of corporate environmental practices because larger companies have more resources to reduce environmental stress than smaller companies. A certain number of researchers have also examined differences in firm performance (profitability and/or productivity) at different stages of age (Coad et al., 2018; Liu, 2015). However, previous empirical studies showed that the size and age of the firm did not provide conclusive evidence in relation to performance (Rossi, 2016). Apart from the studies that were analyzing a moderating effect of age in different industries/countries simultaneously, there were also studies that were concentrated on one specific.

H₂: There is a moderating relationship between firm size and firm age and the performance of the furniture manufacturing firms in Kenya

3. RESEARCH METHOD

Research Design and Methods

The study was conducted in eight counties in the furniture manufacturing sector in Kenya targeting senior and departmental managers placed in the strategic positions. The study used descriptive and explanatory research design. Data was collected using quantitative and qualitative approaches (Creswell et al., 2014). The research data required was on the two key constructs, namely strategy implementation and firm performance. The research instrument was administered through drop and pick method. The managers were briefed on the nature of the research and the innovation capability was measured using 16 constructs while firm was moderated using 8 constructs and firm performance was measured using 14 constructs. The research instrument was a five point Likert scale that

required respondents to indicate their opinion on the statements to the extent of the contribution of innovation capability in strategy implementation on firm performance (Saunders & Bezzina, 2015). Follow-ups were done through telephone calls and mails between the researchers and respondents. A total of 686 questionnaires were distributed and 572 received back showing a response rate of 83.3% (Hendra & Hill, 2019).

Sample Size

The population was stratified into four groups of micro, small, medium and large firm size. The Sloven's formula was used to each subgroup which ended up with a population of 910 respondents and a sample size of 686 respondents from all the stratified groups was selected. A probability proportional to size (PPS) (Sekaran & Bougie, 2016). A simple random sample (SRS) of the groups was selected to obtain the 280 furniture manufacturing firms that participated in this study. The formula was applied in calculating the sample population (n) from 314 licensed furniture manufacturing firms targeting senior and departmental heads. So, 280 firms were the sample population applicable in this formula since the rest of target population i.e., micro, small, medium and large firms fall in categories of less than 10 people of study. To factor in a non-response, the sample size was inflated by 10% leading to 309 furniture manufacturing firms. The 95% confidence level was selected because it is the standard confidence level widely used in business research (Zikmund et al., 2010). Based on the finite population of 280 firms, the heads of departments for the quantitative study and at 5% level of confidence, the sample size was computed according to Sloven's formula:

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

Where **n** stands for the total sample size
N stands for the total population
α = 0.05

$$n = \frac{N}{1+N\alpha^2} = \frac{910}{1+910(0.05^2)} = \frac{910}{3.25} = 280$$

Consequently, the sample size for this study was 686 managers comprising of large firm (125), medium firm (183), small firms (329) and micro firm size (49). The number of managers selected in each firm size was proportional to the population of managers. Micro firm one manager, small firm two managers, medium firm three managers and large

firm four managers. The variables of innovation capability, firm size and age and firm performance were construed by indicators on a Likert scale, with strongly disagree coded (1), disagree was coded (2), neutral (3), agree (4) and strongly agree was coded (5). Content validity and criterion related validity were ascertained and items of reliability were checked using Cronbach's alpha coefficient. Factor analysis was used to identify latent factors that were inherent in the observed variables (Orean, 2018). A principle component analysis was used to collapse a large number of items into fewer interpretable factors by extracting maximum variance. Similar items were combined to come up with constructs (sub-themes). Analysis of moments of structures was used to ascertain if the items in the survey lined up with the construct and to compare the measurement model with the structural model in order to build up a theory. The assumptions of multicollinearity, multivariate normality with no outliers and homoscedasticity were checked.

Data Analysis

Structural Equation modeling (SEM) using Analysis of Moment structures (AMOS) was applied. SEM approach was chosen because it is a multivariate technique that combines the factor analysis and multiple regressions in order to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs. In SEM approach, the fitness of the hypothesized structural and measurement model were tested using selected fit indices. The commonly used fit indices proposed in this study included Normed Fit Index (NFI) (Schumacher & Lomax, 2010) and the Comparative Fit Index (CFI) exceeds 0.9 (Byrne, 1994). To ensure that the obtained estimates are unbiased and consistent the following assumptions must hold: linearity, multi-linearity, no heteroskedacity and normality was observed (Saunders & Bezzina, 2015).

4. DATA ANALYSIS AND DISCUSSION

Respondent Characteristics

The research data was summarized using frequencies and percentages to capture the biographic characteristics of the respondents while descriptive statistics were used to summarize the characteristics of the variables. From Table 1, the respondents were male while female and intersex. This implies that male dominate the furniture manufacturing sector in Kenya. The age of the respondents ranged below 20 years to over 60 years and this implies that majority of the senior managers

are in their middle ages. Level of education holders indicates that majority are secondary and diploma certificate holders. Education levels affect the management practices hence the higher the education level attained by the managers the more it is assumed that they can make better decisions to grow the business. Designated positions comprised

senior-level management, middle-level management and operational-level management of the firm. The literature and real-life experience have it that it is the CEOs or their representatives who are the chief architects of strategies in organizations. This implies that data was collected from the right sources as presented in Table 1.

Table 1. Respondent characteristics

Demographic characteristics	Categories	Frequency	Percentage %
Sex	Males	465	81.29
	Females	90	15.73
	Intersex	17	7.97
Age	Under 20 years	13	2.27
	21-25yrs	51	8.92
	26-30 yrs.	79	13.81
	31-35 yrs.	87	15.21
	36-40 yrs.	105	18.36
	41-45 yrs.	98	17.13
	46-50 yrs.	74	12.94
	51-55 yrs.	53	9.27
	56-60yrs	9	1.57
	Over 60yrs	3	0.52
Highest level of education	Post graduate	28	4.90
	Undergraduate	86	15.03
	Diploma	181	31.64
	Secondary certificate	192	33.57
	Primary certificate	85	14.86
Designated positions	Senior level	213	37.24
	Middle level	202	35.31
	Operational level	157	27.45

Individual Construct Reliability

Structural Equation Method (SEM) was used to answer the study objective of by extracting relevant set of factors through factor analysis based on factor loadings. The extracted factors were then used to determine the reliability of the components of the retained models for both the independent and dependent variables. The SEM model allowed for performance of several diagnostic tests to ensure that the basic assumptions underlying the relevance of the data and the model used were not violated. The innovation capability construct was construed using 17 items and were factor analyzed and had KMO value of 0.747 (Chi-square 1671.483). The p-value was less than 0.05 and this result confirmed that the innovation capability construct could be factor analyzed. The Test for firm size and firm age factor analysis was carried out using 8 items and had a KMO value of 0.796, Chi-square 980.15, Bartlett's test had 21 and p-value 0.000. The p-value was less than 0.05 and confirmed that the construct of firm size and

firm age could be factor analyzed (Field, 2017).

The test for firm performance factor analysis was carried out using 14 construct items and had a KMO value of 0.785, Chi-square 1455.842, Bartlett's test 78 and p value 0.000. The cut-off value for tolerance is not less than 0.01 while for Variance Inflation Factor is not more than the value of 10 (Pallant, 2013). The tolerance values for items of innovation capability passed the cut-off (Min 0.268, Max 0.790) while for the size and age (Min 0.216, Max 0.635) and firm performance tolerance values passed the test (Min 0.216, Max 0.846). Innovation capability had variance inflation factor score of minimum 1.266 and maximum 4.023, while size and age (Min 1.574, Max 4.635) and firm performance had a score of minimum 1.182 and maximum of 4.635, all were within the acceptable range of values. The scale used was rated from 1-5 where: 1 strongly disagree, 2- disagree, 3- neutral 4- agree and 5 -strongly agree. The results is presented in Table 2.

Table 2. Variable characteristics and factor analysis

Variables	KMO	Bartlett's	Chi-square	Cronbach's Alpha	Tolerance		VIF
Innovation Capability (IC)	0.747	P< 0.000	1671.483	0.608	Min 0.268	Max 0.790	Min Max 1.266 4.023
Size and Age	0.796	P< 0.000	980.155	0.582	Min 0.216	Max 0.635	Min Max 1.574 4.635
Firm Performance (FP)	0.785	P< 0.000	1455.842	0.515	Min 0.216	Max 0.846	Min Max 1.182 4.635

After innovation capability being subjected into Principal Component Analysis, five themes emerged with Eigen values of 3.607 and 1.006 and cumulative variance of 60 % (Hair, et al, 2014). Table 3 show that the firm size and firm age had the Eigen values of 3.006 and 1.169 for the two themes and cumulative variance of 60%. The firm performance had the Eigen values of 3.615 and 1.002 for the four themes and

cumulative variance of 56%. All the values of variables fell within the acceptable range (Sekaran & Bougie, 2016). This implies that the five indicators of innovation capability accounted for 60% variation on firm performance. The two indicator of firm size and firm age accounted for 60% variance and four indicators of firm performance accounted for 56% variance.

Table 3. Total variance explained of innovation capability, firm size and age on firm performance

Component	Initial Eigenvalues			Rotation sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
Innovation						
ICTheme1	3.607	24.045	24.045	2.575	17.164	17.164
IC Theme 2	1.946	12.971	37.016	2.442	16.278	33.442
IC Theme 3	1.367	9.113	46.129	1.717	11.449	44.891
IC Theme 4	1.043	6.959	53.084	1.131	7.542	52.434
IC Theme 5	1.006	6.706	59.790	1.103	7.357	59.790
Size & Age						
S Theme 1	3.006	42.937	42.937	2.380	34.006	34.006
A Theme 2	1.169	16.697	59.633	1.794	25.627	59.633
Firm Performance						
FP Theme 1	3.615	27.809	27.809	2.535	19.499	19.499
FP Theme 2	1.493	11.485	39.295	2.022	15.556	35.055
FP Theme 3	1.201	9.239	48.533	1.396	10.736	45.791
FP Theme 4	1.002	7.704	56.237	1.358	10.447	56.237

Findings on Research Questions

To answer the research questions, the study carried out a number of operations to transform the data through the application of the structural equation modeling (SEM) model, the SEM model requires one to perform several procedure as screening and removing multivariate outliers from the original data through examining the Mahalanobis distances. There were 200 outliers removed from 572 cases and the remained 372 were reasonable and within the acceptable range for a researcher to generalize the

findings. All the Variance Inflation Factors (VIF) were less than 10 and all tolerance were greater than 0.01. To test for Homoscedasticity a loess fit line was fitted to the residuals and the loess line was relatively straight thus, the data did not violate the assumption of homoscedasticity. The factorability assessment involved KMO measure of sampling adequacy with a threshold of 0.6 as acceptable value for factor analysis. Bartlett's test of sphericity to assess the factorability and cut-off p-value was 0.000 which is significant and fit for factor analysis.

The measure for innovation capability was 0.747, firm size and firm age 0.796 and firm performance was 0.785 where all variables exceeded the recommended ratio. Bartlett's test of sphericity was 0.000 for innovation capability, firm size & age and firm performance variables. The data passed the tests and proceeded to the next step of factor analysis of multicollinearity tests. The factor extraction was carried out using principal component analysis (PCA) (Bosten et al., 2017). The step determined the smallest number of factors that could best represent the set variable. The threshold was that an item with a factor loading of or less than 0.5 to be omitted from further factor analysis. Items with Eigen value of 1.00 and above is passed for factor analysis and were subjected to rotation method of Varimax with Kaiser Normalization. The items met the cut-off values and proceeded for the Varimax factor analysis. The factor rotation was done with the help of Varimax method. This stage identified the smallest set of factors that represent set of the underlying factors among the related variables whose pattern of loadings are easier and clear to interpret. The rule of thumb is loadings closer to 1.0 strongly influences the variable and factor loading closer to 0.0 implies that it is weak influencing the variable (Pituch & Stevens, 2016).

Factor Analysis Rotated Component Matrix for Innovation Capability

The study found that five themes could be used to create a summated score of innovation capability. Based on the rotated component matrix the five themes selected for creating the index are: Theme one of comprised four items. The statement of firm has the ability to decrease the lifecycle of products had the highest factor loading of 0.781 while the statement firm is able to decrease transaction and administrative costs had the lowest factor loading of 0.644 in strategy implementation. Other statements include firm considers the benefits that customers receive from the products and services had factor loading of 0.754 and the firm is able to discover additional customer needs which they are not aware of yet had factor loading of 0.687. The second theme had two items. The statement firm modifies or improves the design of the products had the highest factor loading of 0.811 with statement of firm improves or modifies the existing products with factor loading of 0.806. The third theme had three items. The statement of firm's policy guides the development of new products had the highest factor loading of 0.772 while a statement of firm has an innovation policy framework had the lowest factor loading of 0.681. Other statement includes firm's

policy guides the marketing activities had a factor loading of 0.743. The fourth theme had one item with the statement of firm improves the product container, packaging, price and distribution channels had a factor loading of 0.885. The fifth theme had one item. The statement of firm continuously improves the existing business processes had a factor loading of 0.898.

Factor Analysis Rotated Component Matrix for Firm Size and Age

The study found that two themes could be used to create a summated score of firm size and firm age. Based on the rotated component matrix the two themes selected for creating the index are: theme one of firm size had three items. The statement of firm has enjoyed economies of scale had a the highest factor loading of 0.857 while a statement of firm has high sales growth had the lowest factor loading of 0.679. Other statement includes firm is more flexible actively seeking new market opportunities had a factor loading of 0.824. Theme two of firm age had two items. The statement of firm benefits from experience and reputation had the highest factor loading of 0.776 while a statement of firm's total assets have increased over the last five years had the lowest factor loading of 0.658.

Factor Analysis Rotated Component Matrix for Firm Performance

The study found out that four themes could be used to create a summated score of firm performance. Based on the rotated component matrix four items selected for creating the index are theme one of product quality the statement of quality of the products has improved tremendously had the highest factor loading of 0.804 while the statements of the firm has sufficient cash flow from the operations had the lowest factor loading of 0.627 and firm has launched new products in the last five years had a factor loading of 0.629. Other statements include firm's capital investment has an influence on firm's performance had a factor loading of 0.797. Theme two of new customer acquisition had two items. The statement of firm's new customer acquisition has been on the rise had the highest factor loading of 0.694 while the statements of the firm had reduced defect rate had the lowest factor loading of 0.643. Theme three had one item. The statement of the market share has been increasing had a factor loading of 0.721. Theme four of return on investment had one item. The statement of the firm is satisfied with the returns from the assets investment had factor loading of 0.744.

Model Fit Statistics

The study found that innovation capability and firm performance have a positive and statistically significant contribution at 0.05 level of significance without being moderated by firm size and firm age. This was depicted by the significance of standardized regression coefficient of innovation capability hypothesized path ($\beta = 0.97$, S.E., 0.091, C.R. 10.695 and p-value 0.000 < 0.05). Therefore, the alternative hypothesis that innovation capability has a positive and statistically significant contribution in strategy

implementation on firm performance is accepted at 0.05 level of significance while the alternative hypothesis that firm size and firm age have a negative moderating contribution in strategy implementation on firm performance is rejected at 0.05 level of significance. Overall, the structural model shown in figure 1 and the model statistics are within the acceptable fit of goodness. Therefore, a unit increase of innovation capability leads to 0.97 increase in firm performance as presented in Figure 1.

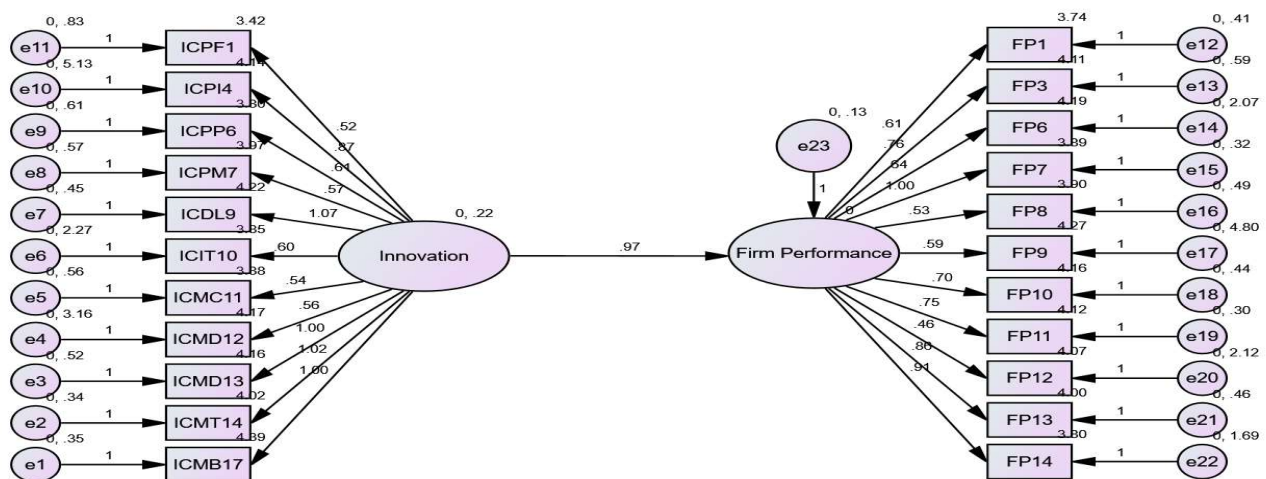


Figure 1. Structural model innovation capability contribute towards the firm performance

Discussion

The innovation capability variable construed five themes namely process, product, systems, customer orientation and business processes after being subjected to factor rotation. The firm performance raised four themes, which will be discussed focusing separately to establish the contribution of each towards a specific theme. In the past studies, scholars have recognized innovation capability as a dynamic organizational capability crucial for strategic success (Karabulut, (2015). Innovation capability plays a central role in strategy implementation by being a change conduit that moves organizations forward. Though, the past studies reviewed have focused on different sectors, they all point to a strong link between innovation and strategy implementation irrespective of the sector of study. Similar to this study, innovation can only happen if the company has the capacity to innovate (Laforet, 2011). Innovation capability is considered the valuable assets necessary to enable the firm to provide and sustain competitive advantage in the implementation of the entire strategy.

Managing innovation capability efficiently ensures that the product lifecycle is decreased in response to market expectations, while considering the benefits that customers receive from the products and services. Innovation enables managers to discover additional customer needs which they are not aware of yet by being proactive to provide variety of products and services competitively. This may lead to decreased transaction and administrative costs. Similar to this study, Rosli & Sidek (2013) investigated the impact of innovation capability on the firm performance of small and medium manufacturing enterprises in Malaysian firms, the results were that the product and process innovation influenced firm performance significantly.

Modification of the product design and improvement of the existing product should be aligned to business strategy to improve firm performance. Lilly et al. (2014) investigated the banking industry in Kenya and concluded that product, process and marketing innovation have greater influence on bank performance. The development of new products needs to be guided by

an innovation policy based on the strategy being implemented. Marketing activities are very critical for firm's brand positioning and competitive advantage. A clear innovation policy framework may guide management on how to combine innovation capability and strategy implementation. Innovation supports the firms in redefining their business to identify new business strategies and core competencies that ensure the implementation of strategies.

Customer orientation is a key focus for any firm's relationship to its market. Firms continuously endeavor to improve the product container, packaging, pricing and distribution channels in line with the business strategy so as to meet customer expectations and create competitive advantage in the industry. Similar study by Huhtala et al. (2014) showed that market-orientation, innovation capability and business performance mediate the performance effect of marketing-orientation, while innovation capability mediates the relationship between customer-orientation and business performance.

Innovation allows the alteration of the production function and processes giving the firm a chance to build its distinctive technological competence. Therefore, managers have to continuously improve the existing business processes to increase efficiency and effectiveness of firm performance. Thus, organizational innovations are strongly connected with all the administrative efforts including renewing the organizational systems, procedures, routines to encourage team cohesiveness, information sharing practice, knowledge sharing and learning (Van der Aa & Elfring, 2002). This is in line with Dalvand, et.al (2015) and Alam et al. (2013) showing that innovation capabilities influenced business performance, marketing performance and financial performance.

The sub-themes extracted from firm size were economies of scale, flexibility in seeking market opportunities and high sales growth. Akinyomi & Olagunju (2012) found a positive relationship where firm age were experience, reputation and increased assets. Majumdar (1997) also found a positive and significant relationship. The extracted firm performance sub-themes were: improved product quality, capital investment influences firm performance, firm has launched new products and sufficient cash flow from operations, rise in customer acquisition, reduced defect rate, increased market share and satisfactory return on assets.

The sub-themes extracted from firm size were economies of scale, flexibility in seeking market

opportunities and high sales growth. Firm age were experience and reputation, increased assets and cannot moderate the contribution of in strategy implementation on firm performance. This implies that all firms whether young or old, small, medium or large in size engage and participate in strategy implementation. Success of business initiatives cannot be pegged on age or size. Any firm can succeed in strategy implementation process and achieve superior performance whether young or old, micro, small, medium or large so long as proper attention is given to innovation capability through leadership, employee development, decision making, succession planning and governance.

The extracted firm performance sub-themes were improved product quality, capital investment influences firm performance, firm has launched new products and sufficient cash flow from operations, rise in customer acquisition, reduced defect rate, increased market share and satisfactory return on assets if the strategy implementation process is effectively managed by the furniture manufacturing firms through developing innovative capability.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The study concluded that innovation is considered a key driver for long-term success of firms in today's competitive markets and a high level of innovation capability in the strategy implementation process increases competitive advantage and creates sustainable firm performance. These findings create a strong case for firms to be innovative on how they implement strategies. In order to respond effectively to the business environment that has become so dynamic, firms particularly in the manufacturing sector need to find creative ways of adjusting their strategy implementation tactics in line with changes in the business environment. Firms must also develop the capacity to sense and detect threats and opportunities presented by changes in environment and transform their strategy implementation process in a way that seizes new opportunities and counters emerging threats.

The study however, concluded that firm size and firm age has no moderating contribution in strategy implementation on firm performance. This implies that all firms whether young or old, small, medium or large in size engage and participate in strategy implementation. Success of business initiatives cannot be pegged on firm age or firm size. Any firm can succeed in strategy implementation process and achieve superior performance whether young or old, micro, small, medium or large so long

as proper attention is given to innovation capability through the process, product, systems, customer-orientation and continuous improvement of business processes. The firm's innovation capability has a great impact on the overall firm performance.

This study, of course, has a limitation. The study findings were solely based on the views of managers/owners and therefore, the results are prone to manager's bias. Thus, more studies should incorporate other stakeholders namely consumers, suppliers and dealers to present more objectivity in the findings and was only based on furniture manufacturing firms in eight counties and generalizability of the finding could be limited to only the eight counties. Thus, more studies should be carried out to include other counties making the study more national.

REFERENCES

- Akinyomi, O. J. & Olagunju, A. (2013). Determinants of capital structure in Nigeria. *International Journal of Innovation and Applied Studies*, 3(4), 999-1005.
- Alam, S. S., Arumugam, V., Nor, N. G. M., Kaliappan, P., & Fang, L. S. (2013). Relationships between innovation capabilities, business performance, marketing performance and financial performance: A literature review. *Business and Management Horizons*, 1(1), 59-73.
- Almajali, D. A., Masa'deh, R. E., & Tarhini, A. (2017). Antecedents of ERP systems implementation success: a study on Jordanian healthcare sector. *Journal of Enterprise Information Management*, 29(4), 549-565.
- Ansari, S. (2013). Impact of information technology in developing organizational strategies and processes. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 668- 673.
- Atta-Ankomah, R. (2016). Chinese technologies and pro-poor industrialisation in Sub-Saharan Africa: The case of furniture manufacturing in Kenya. *The European Journal of Development Research*, 28(3), 397-413.
- Awino Z. B., Wamalwa R. W., Imaita I., & K'Obonyo P. (2011). Challenges facing the implementation of Differentiation Strategy at the Mumias Sugar Company Limited. *Prime Journal of Business Administration and Management (BAM)*, 1(12), 58-67
- Babur, K. (2018). Role of information systems and information technology in strategic management process. *The International Journal of Engineering and Science*, 7(10), 50-53.
- Balarezo, J. & Nielsen, B. B. (2017). Scenario Planning as Organizational Intervention: An Integrative Framework and Future Research Directions. *Review of International Business and Strategy*, 27(1), 2-52.
- Barney, J. B. (2012). Purchasing, supply chain management and sustained competitive advantage: The relevance of resource-based theory. *Journal of supply chain management*, 48(2), 3-6.
- Battor, M., & Battor, M. (2013). The impact of customer relationship management capability on innovation and performance advantages: testing a mediated model. *Journal of Marketing Management*, 26(9-10), 842-857.
- Bosten, J. M., Goodbourn, P. T., Bargary, G., Verhallen, R. J., Lawrance-Owen, A. J., Hogg, R. E., & Mollon, J. D. (2017). An exploratory factor analysis of visual performance in a large population. *Vision Research*, 141, 303-316.
- Bunyasi, G., Bwisa, H., & Namusonge, G. (2014). Effect of entrepreneurial finance on growth of small and medium enterprises in Kenya. *European Journal of Business and Management*, 6 (31), 113 -123
- Chege, S. M. & Wang, D. (2020). The influence of technology innovation on SME performance through environmental sustainability practices in Kenya. *Technology in Society*, 60, 101210.
- Chun, D., Chung, Y., & Bang, S. (2015). Impact of firm size and industry type on R&D efficiency throughout innovation and commercialisation stages: evidence from Korean manufacturing firms. *Technology Analysis & Strategic Management*, 27(8), 895-909.
- Coad, A., Holm, J. R., Krafft, J., & Quatraro, F. (2018). Firm age and performance. *Journal of Evolutionary Economics*, 28(1), 1-11.
- Dalvand, V., Moshabaki, A., & Karampour, A. (2015). The impact of innovation capabilities on export performance of firms. *Applied Mathematics in Engineering, Management and Technology*, 3(2), 295-308.
- Drucker, P. F. (2013). *Innovation and Entrepreneurship*. Harper & Row, Publishers Inc.
- Fagerberg, J., Martin, B., & Andersen, E.S. (2014). *Innovation Studies: Evolution and Future Challenges*, Oxford: Oxford University Press
- Field, A. P. (2017). *Discovering statistics using SPSS*. London, England: Sage Publications.
- Friis, O., Holmgren, J., & Eskildsen, J. (2016). A strategy model-better performance through improved strategy work. *Journal of Modelling in Management*, 11(3), 742-762.

- Gakure, R. & Amurle, G. (2013). Strategic planning practices in ICT SMEs in Kenya: What other SMEs can learn. *Prime Journal of Social Sciences*, 2(6) 336-349.
- Gathogo, G. & Ragui, M. (2014). Effects of Capital and Technology on the performance of SMEs in the manufacturing sector in Kenya. Case of selected firms in Thika Municipality. *European Journal of Management and Science*, 6(7) 308 – 311.
- Grant, R. M. & Verona, G. (2015). What's holding back empirical research into organizational capabilities? Remedies for common problems. *Strategic Organization*, 13(1), 61-74.
- Creswell, J. & Plano C. (2014). *Designing and conducting mixed methods research* (2nd Ed.). Thousand Oaks, CA, Sage Publications.
- Hair, J., Hult, T., Ringle, C., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks, CA: Sage Publications, Inc.
- Handayani, R. & Handoyo, R. D. (2020). Better Performance Prospect of Large-Medium Enterprises: The Role of Innovation. *Journal of Economics, Business, & Accountancy Ventura*, 22(3), 411-423.
- Hendra, R., & Hill, A. (2019). Rethinking response rates: new evidence of little relationship between survey response rates and nonresponse bias. *Evaluation review*, 43(5), 307-330
- Huhtala, J.-P., Sihvonen, A., Frösén, J., Jaakkola, M., & Tikkanen, H. (2014). Market orientation, innovation capability and business performance: Insights from the global financial crisis. *Baltic Journal of Management*, 9(2), 134-152.
- Kamande, J. & Orwa, B. (2015). Determinants of strategy implementation in the Ministry of Lands, Thika, Kiambu County, Kenya. *International Journal of Education and Research*, 3(12), 297- 312.
- Karabulut, A. T. (2015). Effects of innovation types on performance of manufacturing firms in Turkey. *Procedia Social and Behavioral Science*, 195, 1355-1364.
- Kash, B. A., Spaulding, A., Gamm, L. D., & Johnson, C. E. (2014). Healthcare strategic management and the resource based view. *Journal of Strategy and Management*, 7(3), 251-264.
- Kiganane, L., Bwisa, H., & Kihoro, J. (2012). Assessing influence of firm characteristics on the effect of mobile phone services on firm performance: A case study of Thika Town in Kenya. *International journal of economics and management sciences*, 1(10): 12-2.
- Kuratko, D. F., Hornsby, J. S., & Hayton, J. (2015). Corporate entrepreneurship: the innovative challenge for a new global economic reality. *Small Business Economics*, 45(2), 245-253.
- Laforet, S. (2011). A framework of organizational innovation and outcomes in SMEs. *International Journal of Entrepreneurial Behavior & Research*, 17(4), 380-408
- Lichtenthaler, U. (2020). Agile innovation: The complementarity of design thinking and lean startup. *International Journal of Service Science, Management, Engineering, and Technology*, 11(1), 157-167.
- Li, Y., Liu, Y., & Ren, F. (2017). Product innovation and process innovation in SOEs: evidence from the Chinese transition. *The Journal of Technology Transfer*, 32(1-2), 63-85.
- Lilly, L., Juma, D., & Ngumi, (2014). Influence of strategic innovation on performance of commercial banks in Kenya: The case of Kenya commercial bank in Nairobi County. *European Journal of Business Management*, 2(1), 336-341.
- Liu, X., Wright, M., & Filatotchev, I. (2015). Learning, firm age and performance: An investigation of returnee entrepreneurs in Chinese high-tech industries. *International Small Business Journal*, 33(5), 467-487.
- Majumdar, S. K. (1997). Impact of size and age on firm-level performance: Some evidence from India. *Review of Industrial Organization*, 12, 231-241.
- Miller, S., Wilson, D., & Hickson, D. (2016). Beyond Planning: Strategies for Successfully Implementing Strategic Decisions. *Long Range Planning*, 37(3), 201218.
- Naala, M., Nordin, N., & Omar, W. A. B. W. (2017). Innovation capability and firm performance relationship: A study of pls-structural equation modeling (Pls-Sem). *International Journal of Organization & Business Excellence*, 2(1), 39-50.
- Obeidat, B. Y., Al-Hadidi, A., & Tarhini, A. (2017). Factors affecting strategy implementation: A case study of pharmaceutical companies in the middle-east. *Review of International Business and Strategy*, 27(3), 386-408.
- Okumus, F. (2003). A framework to implement strategies in organizations. *Management Decision*, 41(9), 871-882.
- Orean, (2018). Exploratory factor analysis: A guide to best practice journal of black psychology, 44(3) 219-246
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley

- Pallant, J. (2013). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS*. Berkshire, United Kingdom: McGraw-Hill Education
- Pituch, K. A., & Stevens J. R. (2016). *Applied multivariate statistics for social sciences*. New York, NY: Routledge.
- Rajapathirana, R. P. J. & Hui, Y. (2018). Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation & Knowledge*, 3(1), 44–45.
- Rosli, M. M., & Sidek, S. (2013). The impact of innovation on the performance of small and medium manufacturing enterprises: Evidence from Malaysia. *Journal of Innovation Management in Small & Medium Enterprises*, 2013, a1-16.
- Rossi, M. (2016). The impact of age on firm performance: a literature review. *Corporate Ownership & Control*, 13(2), 217-223.
- Sahoo, S. (2019). Quality management, innovation capability and firm performance: Empirical insights from Indian manufacturing SMEs. *The TQM Journal*, 31(6), 1003-1027.
- Saunders, M. N. & Bezzina, F. (2015). Reflections on conceptions of research methodology among management academics. *European Management Journal*, 33(5), 297-304.
- Saunila, M., Pekkola, S., & Ukko, J. (2014). The relationship between innovation capability and performance: The moderating effect of measurement. *International Journal of Productivity and Performance Management*, 63(2), 234-249.
- Schumacher, R. E. & Lomax, R. G. (2010). *A beginner's guide to structural equation modelling*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Sekaran, U. & Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach*, 5th edition. New York: John Wiley & Sons Inc.
- Sibanda, M., & Ramrathan, D. (2017). Influence of information technology on organization strategy. *Foundations of Management*, 9(17), 191- 202.
- Silva, J. J., & Cirani, C. B. S. (2020). The capability of organizational innovation: systematic review of literature and research proposals. *Gestão & Produção*, 27(4), e4819.
- Teece, D. (2014). A dynamic capabilities-based entrepreneurial theory of multinational enterprise. *Journal of International Business Studies*, 45, 8-37.
- Uhlener, L. M., van Stel, A., Duplat, V., & Zhou, H. (2013). Disentangling the effects of organizational capabilities, innovation and firm size on SME sales growth. *Small Business Economics*, 41(3), 581-607
- Vanpoucke, E., Vereecke, A., & Wetzels, M. (2014). Developing supplier integration capabilities for sustainable competitive advantage: A dynamic capabilities approach. *Journal of operations management*, 32(7-8), 446-461.
- Van der Aa, W. & Elfring, T. (2002). Realizing innovation in services. *Scandinavian Journal of Management*, 18(2), 155-171.
- World Bank. 2013. Enterprise Survey for Informal Firms: Kenya, Washington, DC. Available at: <http://www.enterprisesurveys.org>.
- World Bank. (2014). Kenya economic update: anchoring high growth – can manufacturing contribute more? *Kenya Economic Update; Edition No. 11*. Washington, DC; World Bank Group.
- Yavarzadeh, S. & Dashtbozorg, M. (2015). Measurement of organizational maturity in knowledge management implementation. *International Journal of Economic, Commerce and Management*, 3(10), 318-344.
- Yesheng, K. & Ibrahim, M. (2019). Service innovation, service delivery and customer satisfaction and loyalty in the banking sector of Ghana. *International Journal of Bank Marketing*, 37(5), 1215-1233.
- Yildiz, O., Bozkurt, Ö. Ç., Kalkan, A., & Ayci, A. (2013). The relationships between technological investment, firm size, firm age and the growth rate of innovational performance. *Procedia-Social and Behavioral Sciences*, 99, 590-599.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business Research Methods*. South Western. Cengage Learning.