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THE ROLE OF INNOVATION PRACTICES IN FOSTERING SUPPLY CHAIN PERFORMANCE OF PUBLIC ENTITIES: EVIDENCE FROM A DEVELOPING ECONOMY

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ABSTRACT

Today, there is a paradigm shift in firms from managing competition to managing supply chains in the wake of alleviating expected results. This has called for concerted efforts from multisector stakeholders to derive the best ways of overcoming supply chain predicaments spanning from increasing costs, cross boarder restrictions, sunken quality and untimeliness. In 2020, just what could go wrong for supply chains did exactly that following emergency of the Covid 19 and later on Russia's invasion of Ukraine; sinking many chain firms in the oblivion of struggling to bring products to where and when required. In Kenya, the Public Procurement Authority report, 2017 shows that many public entities procure at 60% above prevailing market prices, this painting a blustery image in supply chain performance. Empirical evidence reveals that studies on innovation practices have tried to provide solutions to this effect, though majority have concentrated on solitary case perspectives and focused on organization-wide performance, arousing the gist of the current study. The purpose of the study was to investigate the effect of innovation practices on supply chain performance in a developing economy, Kenya. Through a primary quantitative paradigm, we surveyed 187 public entities in a correlational survey design. The study is mainly grounded in Technology, Organization, and Environment theory. Standard linear regression models guided analysis. Cronbach Alpha technique with 0.7<α<0.88 ascertained reliability. Findings show that innovation practices significantly affect supply chain performance ($R^2 = 0.422$, $\beta = 0.649$, p<0.05), this denoting that unit improvement in adopting innovations aggravates performance by 0.649 units. The results pitch theoretical establishment on why a firm's love for innovativeness should not diminish. We recommend stakeholders in public entities to continuously focus on leveraging innovation practices to improve their results.

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1.0 INTRODUCTION

1.1 Background to the study

With the ever-changing business systems, competitive environments and highly dynamic technologies, many firms are considering innovativeness as a tool to obtain competitive scales. In the global arena today, governments are adopting innovative practices and technologies in Supply Chain Management (SCM) with a view to improving quality and economic growth. Innovativeness as an antecedent of performance however, varies in different organizations (Alves, et al., 2018). It is reported that information technology used in creation of goods and services enables firms to succeed in the current turbulent market environment characterized by high competition. Many philosophical viewpoints, for instance the resource based view take of a firm point out that an organization with unique innovative resources and capabilities can obtain competitive scales in tumultuous markets and outperform her competitors and industry contenders. Of worth to note is that innovation practices enables organizations to manufacture new varieties of products and services that are in turn the antecedents for high performance (improved quality, reduction in costs of operations, timely delivery to intended markets, and efficient service delivery to citizens). In a nutshell, such firms become bosses in competitive markets and gain high performance which has high technological capability (Mudany, Kemei, Awuor & Ogutu (2021)

In the words of Zhang et al. (2019), there are two types of innovation practices; first, product innovations which imply the new products obtained after putting in action technological products and second, process innovations which stem from putting in action processes deemed to improve a service or a product. Innovation is acclaimed as an operative alternative for organizations to compete effectively in tempestuous market forces. This can be achieved by implementing diverse innovation forms such as social innovations, organizational innovations, eco innovations, marketing innovation and process-product innovations (Ortiz-Villajos & Sotoca, 2018). The choice of the type of innovation by an organization must however be aligned to the firms set objectives. Gu, Yang, & Huo (2021) show that technology usage can improve performance in manufacturing firms. Mwangi and Kariuki (2013) contend that public entities' inadequate application of ICT systems and processes negatively affects compliance to the legal framework. Other studies even though, reveal that innovation practices has moderating influences; especially on human resource practices and firm performance (Bulitia, 2008).

The study by Gu et al. (2016) studied the effect of ICT innovations on supply chain resilience and performance. Based on a sample size of 206 manufacturers in the Chinese manufacturing firm, the writers adopted a systematic empirical review methodology to examine the relationship between supplier information technologies (IT) exploitative use, supplier IT explorative use, customer IT exploitative use, customer IT explorative and supplier resilience. Guided by the lens of information processing theory, it is argued that for firms to recover from operational disruptions caused by disruptions in the supply chain such as the Covid 19, they must exhaustively improve the capacity of utilizing IT to amend their structures and survival processes. The grounds of information processing theory cement that the use of information communication technology is an ideal way of improving information sharing and processing which are bases of evading disruptions. The results show that supplier and customer resilience

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improves supply chain performance and supplier IT explorative use have an effect on performance. Further the ambidextrous use of IT takes effect on the customer side.

In addition, Chege et al. (2019) looked at impact of IT innovation on organization performance in Tharaka Nithi County of Kenya by randomly selecting 297 small scale farmers and SMEs which were registered and licensed by the government. A quantitative research design was utilized where primary data was collected by semi structured questionnaires. Structural equation modelling was also utilized in analyzing the collected data. Results of the study showed that technology innovation has a positive and significant effect on performance. The recommendations informed entrepreneurs to consider coming up with innovative strategies in order to spur performance. The government of Kenya as well need to also strengthen and actualize policies meant to develop ICT infrastructure among entrepreneurs, improving SMEs innovation externalities as well as putting up ICT resource centers in order to improve organization performance.

From the afore discussions, empirical dialogs on innovation practices in public procurement are documented in scholarly works. Majority of the studies hitherto, concentrated on solitary firm perspectives, such as the works of (Gu et al., 2016: ICT innovations effect on supply chain resilience and performance in Chinese manufacturing firms; Chege et al., 2019: impact of IT innovations on organization performance on small scale farmers and SMEs), ignoring a multifaceted approach of firms in diverse industries. Additionally, reviewed studies concentrated on organizational performance or rather, aspects of supply chains performance (Gu et al., 2016: ICT innovations effect on supply chain resilience and organizational performance; Chege et al., 2019: IT innovations on organization performance) disregarding a clear focus on supply chains performance. In this view, a clear cut model on effect of innovation practices on supply chain performance in public entities in a developing economy is nonexistent in literature. With this, we set to bridge this gap by suggesting knowledge on effect of innovation practices in public procurement on supply chain performance of public entities in a developing economy, Kenya.

1.2 Objective of the study

The main objective of the study was to establish the effect of innovation practices on supply chain performance of public entities in a developing economy, Kenya

1.3 Hypothesis of the study

H01 Innovation practices has no significant effect on supply chain performance of public entities in Kenya

1.4 Conceptual framework

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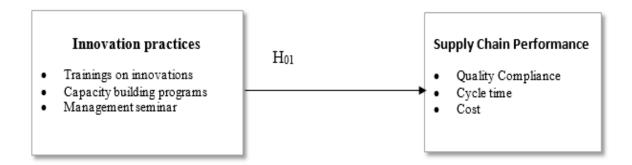


Figure 1. 1: Conceptual framework of the effect of innovation practices on supply chain performance of public entities in Kenya.

Source: (Adopted from Tornatzky & Fleischer, 1990)

The conceptual model of the study above shows an association between innovations practices and supply chain performance which exhibits a cause and effect relationship. The independent variable is innovation practices. Aspects of innovation practices in place (trainings on innovations, capacity building programs, management seminars) may affect supply chain performance of public entities. With this therefore, it is expected that the values of supply chain management as enshrined in the Constitution of Kenya 2010, in terms of transparency, value for money, competition and cost-effectiveness (estimated in this case as supply chain performance metrics, quality compliance, cost effectiveness, cycle time) may be achieved by public entities. Therefore, the study is composed of two main variables; independent variable (innovation practices) dependent variable (supply chain performance) as shown in the figure 1.1

2.0 LITERATURE REVIEW

2.1 Technology-Organization-Environment Theory (TOE)

The Technology, Organization, Environment, TOE, framework model was first put forward by Louis Tornatzky and Mitchell Fleischer in 1990 as an organization level theory of recognizing how technology can be embraced in the firm and the elements that influence adoption of this technology to create value. The proposers of this model in this case, recognized these elements as three fold: technological, organizational and environmental.

According to the proponents, there are a standard set of elements which explains how technology can be incorporated and used in the organization. These elements are the technology growth, organizational aspects, business and organizational reconfiguration), and the business environment. In the technological aspect, the adoption and use is pegged on technologies within the organization environment, benefits derived, as well as visibility complexity. In the context of the organization, business aspects such as the scope, top management commitment, culture, organization structure, are considered (Chatterjee, et al., 2002). The environmental such as competition, collaboration among partners, socio-cultural issues and government support (Scupola, 2009).

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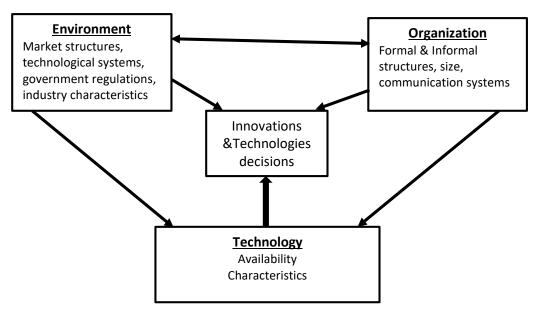


Figure 2.2 Technology-Organization-Environment Model, TOE.

Source: (Tornatzky & Fleischer, 1990)

It is important to recognize why Tornatzky & Fleischer (1990) proposed this theory in organization lenses other than other technological models that had widely been accepted (e.g. Technology Acceptance Model, Theory of reasoned action, and Theory of planned behavior). Importantly, the proponents established this model based on higher level characteristics and traits (i.e. technology, organization and environmental) aspects other than the exhaustive qualities of individual people in the organization (Awa, Ojiabo, Orokor 2017) as explained by the preceding theories. TOE model is thus organization-wide based other individual-based and presents a generalized view of viewing the adoption and application of technology in the firm.

Innovation Practices is an important tool of this study. The study conceptualizes that innovation practices in public procurement such as systems & applications adoption and development such Tender Management Systems (TMS), Warehouse Information Management System (WIS), ICT training & development, e procurement practices Training & Capacity building, are important innovations which may be adopted, developed and used to obtain value for the firm. However, their adoption and use may depend on the Organization, its technology capability and the environment of operation as envisaged by the TOE model. For Innovation Practices to influence supply chain performance, they must widely be accepted and attuned with the existing technological infrastructure. The organization itself must be favorable, that is, the firms culture and norms, communication channels must support the innovation practices. Policies and regulations, both from the internal and external environment must further allow the adoption and use of innovation practices. The theory therefore, takes credence that PEs may adopt innovation practices to improve performance since the practices will position the firm's competitive scales, reduce costs of operations and improve speed and quality in operations. The TOE model thus grounded the variable Innovation Practices

2.3 The concept of innovation practices

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Innovation practices refers to the process of improvement of products and processes to bear specific technological characteristics in their features and functioning that were not present before (Mardia & Namusonge, 2016). In this context, it refers to new models of work and product designs with better, altered features and work processes than they were previously. Also, innovation practices can be defined as a journey by which groups of people or organizational entities leverage the importance of technology to add extra steps in the making a product or service in a market place to increase their competitiveness (Broughel & Thierer, 2022).

The aim of innovation practices in this context is to increase an organization's competitive advantage. Furthermore, innovation practices is the process of increasing productivity by bringing benefits to citizens in the form of new and improved goods and services that improve their standards of living (Broughel & Thierer, 2022). In this context, innovation practices is aimed at finding ways that satisfy consumer's better using technology. From the preceding definitions, innovation practices has 'a new' premise. The study thus defines innovation practices as new ideas, practices, technologies or new ways of improving the final products and services in a formal organization.

Training and capacity building in procurement involve the process of improving the know-how of procurement personnel and department with the latest knowledge and skills to make them more efficient in their functions. The Kenya Institute of Supplies Management (KISM) has training programs for supply chain management practitioners and carries out these trainings especially for practitioners in PEs. Training & Development is an important business functions. It leads to an improved collective response to issues affecting procurement (Mariam & Kisimbii, 2020). The global changes in the field of procurement also get to be shared by different stakeholders leading to collective action.

2.4 Innovation Practices and Supply Chain Performance

The study by Gu et al. (2016) studied the effect of ICT on the supply chain resilience and performance. Based on a sample size of 206 manufacturers in the Chinese manufacturing firm, the writers adopted a systematic empirical review methodology to examine the relationship between supplier information technologies (IT) exploitative use, supplier IT explorative use, customer IT exploitative use, customer IT explorative and supplier resilience. Guided by the lens of information processing theory, it is argued that for firms to recover from operational disruptions caused by disruptions in the supply chain such as the Covid 19, they must exhaustively improve the capacity of utilizing IT to amend their structures and survival processes. The grounds of information processing theory cement that the use of information communication technology is an ideal way of improving information sharing and processing which are bases of evading disruptions. The results show that supplier and customer resilience improves supply chain performance and supplier IT explorative use have an effect on performance. Further the ambidextrous use of IT takes effect on the customer side.

In addition, Chege et al. (2019) looked at impact of IT innovation on organization performance in Tharaka Nithi County by randomly selecting 297 small scale farmers and SMEs which were registered and licensed by the government. A quantitative research design was utilized where

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primary data was collected by semi structured questionnaires. Structural equation modelling was also utilized in analyzing the collected data. Results of the study showed that technology innovation has a positive and significant effect on performance. The recommendations informed entrepreneurs to consider coming up with innovative strategies in order to spur performance. The government of Kenya as well need to also strengthen and actualize policies meant to develop ICT infrastructure among entrepreneurs, improving SMEs innovation externalities as well as putting up ICT resource centers in order to improve organization performance.

From the afore discussions, empirical dialogs on innovation practices in public procurement are documented in scholarly works. Majority of the studies hitherto, concentrated on solitary firm perspectives, such as the works of (Gu et al., 2016: ICT innovations effect on supply chain resilience and performance in Chinese manufacturing firms; Chege et al., 2019: impact of IT innovations on organization performance on small scale farmers and SMEs), ignoring a multifaceted approach of firms in diverse industries. Additionally, reviewed studies concentrated on organizational performance or rather, aspects of supply chains performance (Gu et al., 2016: ICT innovations effect on supply chain resilience and organizational performance; Chege et al., 2019: IT innovations on organization performance) disregarding a clear focus on supply chains performance. In this view, a clear cut model on effect of innovation practices on supply chain performance in public entities in a developing economy is nonexistent in literature. With this, we set to bridge this gap by propounding new knowledge on effect of innovation practices in public procurement on supply chain performance of public entities in a developing economy, Kenya.

3.0 METHODOLOGY AND DESIGN

The research used a quantitative paradigm in the lens of positivism belief. Philosophy is about the source and development of knowledge. The positivism philosophy was suitable for this study since it involved collection of quantitative data, objective from the environment in which the data was collected, involved testing of hypothesis and followed the established theories to draw conclusions on innovation practices and supply chain performance of public entities. Furthermore, the study follows an established and agreed upon scientific method. We employed a correlational survey design. The use of correlational survey design is confirmed by Arasa, et al., (2013) who justifies that the purpose of correlation studies is to gain an understanding of the relationship among variables of a study majorly without the researcher having an influence over the variables. Further, correlation designs adopt the use of quantitative methods, and are ideal in obtaining data in their natural being. The field work for the study was conducted in Kenya among her public entities in major industries between February 2023 to May 2023. The state corporation's advisory committee report website as quoted in the Taskforce report on parastatal reforms (2021) show that Kenya has 187 fully registered public entities. In this view, the units of observation were the 187 registered PE, from which 187 Heads of procuring units were surveyed. For the purposes of this study, the units of observation were the 187 registered PEs. According to the Public Procurement and Asset Disposal Act, 2015, Heads of procuring units are professionals in public procurement practices ad their

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opinions are deemed professional in making award decisions. The choice of the heads of procuring units as units of analysis was thus confirmed in PPAD Act, (2015).

A structured questionnaire guided collection of primary data. Before the actual collection, 10% of the population, forming 19 public entities and who did not take part in the final study was pilot tested to allow for pretesting of the measuring instrument. Connely (2008) argues that a pilot sample should be 10-20% of the sample size or parent population for meaningful generalization of findings; which was a precursor in the current study. The Cronbach's alpha technique was adopted in ascertaining reliability of the measuring instrument. The results are presented in table 3.1

Table 3. 1: Data tool scale reliability test results

Constructs	Number of items	Cronbach's Alpha	based on		
			standardized scores		
Innovation Practices	5	.861	.876		

Source: (Field Survey, 2023)

Results in table 3.1 show that the measuring scale had high reliable value (p=.861), which is above threshold of alpha value of $\alpha > 0.7$ as initially recommended by (George & Mallery, 2009), thus confirming reliability of the measuring instrument.

To establish the effect of innovation practices on supply chain performance of public entities, equation 3.1 was modelled as follows:

$$Y_i = \beta_0 + \beta_1 X_{(1_i)} + \epsilon_i$$
....(3.1)

Where Yi is Supply Chain Performance, β_0 is a constant in the mode, $X_{(1,)}$ is the independent variable, (innovation practices) and \Box i is the error term

Source: (Adapted from Freund, et al., 2006; Field, 2005).

4.0 RESULTS AND DISCUSSIONS

A total of 168 questionnaires were administered to procurement officers of the public entities. The response return rate is presented as shown in Table 4.1

Table 4. 1: Response Return rate

Organizations	Sample	Total Response	Percentage Response
Number of Organizations	168	158	94.05%

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Source: (Field Survey, 2023)

From the findings in Table 4.1, it is clear that out of a total of 168 questionnaires that were administered, there was a response return of 158 fully filled questions which represents 94.05%. This is indicative of good response return according to Kothari (2003) observation that a response return rate above 90% represents a good data collection process and hence qualifies the collected data for generalization over the calculated sample size.

4.1 Descriptive statistics on Innovation Practices

Participants respondent by indicating the extent of implementation of the identified statements on Innovation Practices. A five Point Likert scale was used where: Strongly Agree (SA) = 1, Agree (A) = Neutral(N) = 3, Disagree (D) = 4, = Strongly Disagree (SD) = 5. The findings are presented as shown in Table 4.11 below using frequency counts, percentages, means and standard deviations.

Table 4. 2: Innovation Practices

Innovation Practices	SD	D	N	A	SA	M	ST D
1. The organization carries out training programs for procurement staff on innovation practices	116(73.4	18(11.4	18(11.4	2(1.3)	4(2.5)	1.5	0.93
2. The organization carries out capacity building programs through sensitization of the procurement staff on emerging and innovative technologies in public procurement	108(68.4	20(12.7	16(10.1)	6(3.8)	8(5.1)	1.6	1.13
3. Procurement staffs take part in trainings on procurement and disposals by Kenya Institute of Supplies Management	20(12.7)	39(24.7	74(46.8	15(9.5)	10(6.3)	2.7	1.02
4. The organization supports training of staff on new and emerging procurement and disposal acts and regulations by Kenya Institute of Supplies Management	33(20.9)	59(37.3	57(36.1	7(4.4)	2(1.3)	2.3	0.89
5. Our organization carries out management seminars and team building to enhance on the job training	23(14.6)	56(35.4	48(30.4	23(14.6	8(5.1)	2.6	1.06

KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD- Strongly Disagree, M-Mean, STD-Standard Deviation. Source: (Field Survey, 2023)

From the findings, majority 116(73.4%) of the respondents strongly disagreed that the organization carries out training programs for procurement staff on innovation practices also when adopting new innovations, which was also confirmed by a low mean and standard

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deviation (M=1.5, STD=.93). Majority, 108(68.4%) of the respondents strongly disagreed that the organizations carries out capacity building programs through sensitization of the procurement staff on emerging and innovative technologies in public procurement. A low mean (M=1.6, STD=1.13) was also obtained although with a high standard deviation thus showing that whereas there was less practices on capacity building indicated by majority, there were variations in the response. Majority of the respondents, 74(46.8%) remained neutral on whether they took part in training on procurement and disposals by Kenya Institute of Supplies Management, although 39(24.7%) disagreed and 20(12.7%) strongly disagreed. A low mean (M=2.7, STD=1.02) with a high standard deviation were obtained implying that whereas majority of the respondents remained neutral, there were variations from low mean with a significant percentage agreeing and a few disagreeing. From the findings, majority of the respondents, 59(37.3%) disagreed and 33(20.9%) strongly disagreed that the organization supports training of staff on new and emerging procurement and disposal acts and regulations by Kenya Institute of Supplies Management. A low mean and standard deviation (M=2.3, STD=.89) indicated there was little organizational support of training of staff. On whether their organization has management seminars has team building and seminars to enhance on the job training, 14.6% strongly disagreed supported by another 56%. A mean of (M=2.6) and standard deviation (STD=1.026) was also obtained.

4.2 Effect of innovation practices on Supply Chain Performance of Public Entities in Kenya

The study first established whether innovation practices has any association with supply chain performance, adopting Pearson' Product moment correlation (r) model.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Source: (Adopted from Chen et al., 2003; Chen & Popovich, 2002)

Where:

r = the Pearson Coefficient of correlation

n= number of pairs of the stock

 $\sum xy = \text{sum of products of the paired stocks}$

 $\sum x = \text{sum of the } x \text{ scores}$

 $\sum y = \text{sum of the y scores}$

 $\sum x^2 = \text{sum of the squared } x \text{ scores}$

 $\sum y2 = \text{sum of the squared y scores}$

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A coefficient correlation above 0.9 indicates presence of high correlation among variables (LeeRodgers & Nicewander, 1988). Results on correlation between innovation practices and supply chain performance is presented in table 4.3.

Table 4. 3: Correlation between Innovation Practices & Supply Chain performances

		Mean SCP	Mean IN_IPs	
	Pearson		**	
Mean SCP	Correlation	1	.583**	
Mean SCP	Sig. (2-tailed)		.000	
	N	158	158	
	Pearson	.583**	1	
Mean IN_IPs	Correlation	.363	1	
Weali IN_IFS	Sig. (2-tailed)	.000		
	N	158	158	

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

Source: (Field Survey Data, 2023)

The table 4.3 results show that innovation practices has a positive correlation with supply chain performance as indicated by the r value (r=.583), implying that innovation practices is positively associated with supply chain performance.

Subsequently, a standard linear regression model was performed to reveal effect of innovation practices on supply chai performance. This was modelled as below;

$$Y i=β 0+β 1X (1 i)+ε i....(3.1)$$

The results are presented in the table 4.4;

Table 4. 17: Effect of Innovation Practices on Supply Chain Performance of Public Entities in Kenya

Littles in Kenya									
Model Summary									
Model R	R	Adjusted	Adjusted RStd. ErrorChange Statistics						
	Square	Square	of th	neR Squa	areF df	f1 df2	Sig.	F	
			Estimate	Change	Change		Change	;	
1 .649 ^a	.422	.418	.37672	.422	113.744 1	156	.000		
a. Predictors: (Constant), Mean Innovation Practices									
Coefficients ^a									

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Model		Unstandardized		StandardizedT		Sig.	Collinearity	
		Coefficie	nts	Coefficients	8		Statistics	5
		В	Std. Erro	r Beta			Toleranc	eVIF
	(Constant)	1.028	.135		7.590	.000		
1	Mean Innovatio Practices	n .604	.057	.649	10.665	.000	1.000	1.000

a. Dependent Variable: Mean SCP

Source : (Field Survey, 2023)

From the regression model findings, Innovation Practices has a positive correlation with supply chain performance as shown by the R value (R= 0.649). This means that there is an association between a combination (mean) of the subscales of innovation practices and mean of the subscales of supply chain performance. Furthermore, it is clear that innovation practices accounts for 42.2% variance in supply chain performance, (R2 =0.422) which is also significant, F (1, 156) =113.744, p<.05, at threshold probability value (p-value) of 0.05. The threshold P- value (P<0.05) is sufficient evidence of significant variance. In addition, the findings using the model standardized coefficient results shows that innovation practices have a positive and significant effect on supply chain performance (β =0.649, p<0.05). This means that for every unit increase in adoption and use of innovation practices, supply chain performance improves by a magnitude of 0.649 units. This magnitude is high, implying that innovation practices are a good predictor of supply chain performance and explains much of its variance this is represented in the model as below;

$$Y = 1.028 + 0.604X1P....(4.1)$$

In which Y denotes the mean supply chain performance (the response variable), 1.028 is the intercept, the magnitude of supply chain performance which increases without including any explanatory variable in the model. 0.6024 units indicates the magnitude of increase in supply chain performance as a result of improving adoption and use of innovation practices by keeping all other factors constant.

The R square value (R2=0.422) and the standardized model coefficient (β =0.649, p<0.05) is sufficient evidence to conclude that innovation practices have a positive and significant effect and explains a considerable variance of 42.2% in supply chain performance of the public entities in Kenya. In practice, this results infer that by a unit increase in adoption and use of innovation practices, performance of the supply chains would increase by 0.649 units. On the same note, a change in supply chain performance by 42.2% is accounted for by the adoption and use of innovation practices, the remaining 57.8% explained by other factors not considered in the study. Innovations such as training of procurement practitioners in ICT, adoption and use of e procurement practices, building capacity of procurement practitioners by continuous professional trainings, adopting, securing & developing systems used in public procurement practices are important in ensuring the alleviation of supply chains performance.

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The results of current study support positions of other prior studies. Cerne et al., (2015) who modelled the relationship between technological innovation, management innovation and financial performance of three countries; Slovenia, South Korea and Spain. The study collected primary data in the three countries which were analyzed by structural equation modelling. It is acknowledged that previous evidence in literature on innovations was focused on changes in technology, improving technology and changes in management structures. The view that innovations had to be changes in technology or improvements in technology has been documented in majority of the studies. Study showed that management innovations affects financial performance and that innovations, not just technologies, must be attuned to management in order to improve financial performance.

Likewise, the findings by Kiani et al., (2021), studying top managers and CEOs in Chinese SMEs showed that entrepreneurial passion of managers in SMEs improves innovativeness. The writers link innovativeness with the ability for managers to be entrepreneurial. If managers are entrepreneurial, there will be marked innovativeness in the firms and this in turn, will improve profit levels. This study used a structured questionnaire to collect data from 400 SME firms published in the directorate of technology firms of Guangdong province in China. Writers also established that the firm's entrepreneurial orientation has a significant mediating effect on the relationship between managers' entrepreneurial passion and technology innovation; the CEOs entrepreneurial passion was found to be a significant predictor of firm orientations.

In an African context, results of the study agree with the findings by Donbesuur et al., (2020) who showed that both technological and organizational innovations improve performance. The writers used a questionnaire to obtain data from 730 respondents made up of finance officers, business owners, global business managers as well as research, innovation and development officers. Based on the institutional and dynamic capability theories, the study posits that innovations (both technological and organization) have an effect on performance and this is contingent on the domestic institutional factors. Domestic institutional environment, specifically enforceability and specificity improve the effect of innovations on SMEs international performance.

5.0 CONLUSSION

The paper sought to establish effect of innovation practices on performance of supply chains of public entities in a developing economy, Kenya. The model results show that innovation practices has a significant positive effect on supply chain performance, agreeing with empirical establishments. We thus conclude: innovation practices has a significant positive effect on supply chain performance of public entities in a developing economy, Kenya and infer that improvement in adoption and use of innovations has an important role in intensifying performance of supply chains. The paper provides evidence from a developing country that all we need is innovations love in public procurements as this can help supply chain firms raise their performance levels. Conclusively, we provide exciting thoughts that public sector supply chain firms must move away from the 'pen and paper' mantra by adopting innovative practices.

6.0 RECOMMENDATION AND FUTURE RESEARCH AGENDA

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The objective of the paper was to determine effect of innovation practices on supply chain performance of public entities. Undeniably, the results indicate that truly, innovation practices has a significant positive effect and accounts for considerable variance in supply chain performance. The paper therefore provides evidence that innovations love is important due to the role it plays in alleviating expected results.

In equal measures, we suggest the following for future research;

- 1. The current study focuses on public sector firms using tax payers' resources. Future research need to focus on public private supply chain firms that even though have own funding means, hitherto, they use both government procurement laws and own company manuals.
- 2. Evidence of the moderating role of innovations in public procurement on performance relationship may be carried out in developed and first world economies.

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