



## Technology acceptance model, innovative behaviour and MSE performance in Vihiga County, Kenya



Research article



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### Abstract

The call for MSE performance has emerged as a result of challenges associated with business transactions such as payments of suppliers, receiving payments and maintaining business relationships. Given MSE performance, past studies have sought to look into it in relation to technology acceptance model. However, to fill the existing gap, the study used innovative behaviour to moderate the link between the study variables. The main objective was to investigate the effects of technology acceptance model and innovative behaviour on MSE performance in Vihiga County Kenya. As guided by technology acceptance model and explanatory research design, 5915 MSEs were targeted. Using multi-stage sampling technique, data from 455 Micro and Small Enterprises (MSEs) was analyzed. The findings indicated that there is a significant relationship between perceived ease of use and MSE performance ( $\beta=.383, p<.05$ ); perceived usefulness and MSE performance ( $\beta=.281, p<.05$ ). The moderating variable, innovative behaviour had a significant effect on the relationship between perceived ease of use and MSE performance ( $\beta=.207, p<.05$ ); an insignificant relationship between perceived usefulness and MSE performance ( $\beta=.003, p>.05$ ). The study recommends that the government to provide adequate regulatory framework that will encourage the use of technology in the MSE sector and hence enhance their performance.

**Keywords:** Technology Acceptance Model, perceived ease of use, perceived usefulness, innovative behaviour, MSE Performance, Kenya



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## Public Interest Statement

The study postulates that an understanding of MSE performance in Kenya is vital in managing and avoiding the massive failure of small businesses, given that MSEs are important to national economic growth. The findings of this research, therefore, would assist MSEs to identify issues that affect performance of their enterprises. Through research findings, as the present study's, both the National and County Governments have a basis for formulating holistic policies to enable performance of MSEs.

## 1.0 Introduction

Performance in a business is determined by its ability to manage available resources effectively (Iswatia & Anshoria, 2007). Widely, performance has been regarded as a good measure of effectiveness and efficiency of resources in an organization (Richard, Devinney, Yip, & Johnson, 2009). Performance is key due to the fact that it helps in resource allocation as well as planning the progress towards goal achievement (Ittner, Larcker, & Randall, 2003). MSE performance is used to identify how well a business uses the available resources to gain profits (Baxter, 1967). Thus, profitability is the key indicator of MSE performance. Different indicators have been used in existing literature to measure MSE performance, which include financial and non-financial measures. Financial measures include measures such as growth and profitability while non-financial indicators include customer satisfaction, global success ratings, goals achievement, and other indicators (Rosenbusch, Rauch, & Bausch, 2013).

For several years now, the relationship between technology acceptance model and MSE performance has drawn attention of many researchers across several countries in the world. Most recently the two variables has been discussed in Jordan , (Al-Sharafi, Arshah, Herzallah, and Alajmi (2017), in Vietnam (Chong and Syarifuddin 2010), and India (Herzallah and Mukhtar 2016). In Kenya, technology acceptance in relation to MSE performance has been examined by Simiyu and Oloko (2015) on growth of SMEs in Kisumu City, Kimaru (2019) on the electronic public transport fare system and Nyaga (2017) on awareness of mobile banking services on growth of MSE. In terms of MSE performance, there exists a huge gap in Kenyan context. This is evident from a report by (Statistics, 2010) which shows that 3 in every 5 enterprises fail before the first year of operation and further 80% of the remaining fail before they reach the fifth year while establishments that are acquired are more vulnerable to closure and they account for 61.3 % of the total businesses closed (Group, 2017).

Technology acceptance model is getting popular due to its time liberty, cost saving, ease of use, swiftness, and convenience of carrying out the transactions. Technological changes are witnessed in the recent studies as indicated by (Aladwani, 2001) who identified e-commerce as the fastest growing area for enterprises. Furthermore, (Woodward, 2009) indicated that uncertain future of economies with Shifts in population demographics and

other dynamic forces had transformed the operations of organizations as never before, bringing new opportunities that need to be exploited all over the world.

Technology acceptance model is recognized as a determinant for the growth and profitability of an organization. According to (Sivabalan, Booth, Malmi, & Brown, 2009), e-banking technology has been related to high firm growth, superior performance, and longevity (Soininen, Puumalainen, Sjögrén, Syrjä, & Durst, 2013). Technology offers various benefits to MSEs such as funds transfers, make payments, pay bills, and receive payments, check account balances which in turn decrease transaction costs and gain greater control over bank accounts and maintain customer relationships (Frank, Kessler & Fink, 2010). The need for technology is meant to decrease expenses of cash management and increasing efficiency of carrying out cash transactions hence enablement of conducive environment for growth and survival of enterprises. Bayero (2015) suggested that the prediction of a cashless society was determined by an increased use of internet banking.

As indicated by Nweke (2012), practically 97% of transactions were carried out without physical cash and this had enormously decreased cost, corruption, money laundering and tax evasion in the western world. Laoye (2011) suggested that the system is focusing at empowering electronic methods for making payments and not aimed at discouraging cash transactions. Studies have indicated that e-banking technology characteristics contribute immensely to e-banking technology adoption which leads to enhanced MSE performance. In Kenya, the use of technologies such as automated teller machines (ATM), mobile banking and Internet banking, direct transfer of electronic funds, bill payments, debt and credit card use has been gradually growing (CBK, 2010; Gikandi & Bloor, 2010).

Technology acceptance is therefore becoming the centerpiece of enterprise selling strategies, with the leading organizations transactions of products and services must be carried out without actually affecting the regular operation of these organisations by creating new financial services or changing existing ones to accommodate customers. However, with exposure to such e-banking services, it is not clear if MSEs are becoming innovative by adopting e-banking technology in their enterprises (Khalifa & Cheng, 2002). For adoption to be effective there is need for innovative behaviour to be the invisible hand driving the decisions made in business. Many enterprises through innovative behaviour, have held competitive advantage over their competitors Ashourizadeh, Chavoushi, and Schøtt (2014). Innovative behaviour is increasingly becoming the single most important element in creating and sustaining competitive advantage (Tidd, 2006). Several studies having looked at direct relationship between technology acceptance and MSE performance. An intermediate relationship was not used in prior research. This study proposes to investigate the model of technology acceptance model, innovative behavior and MSE performance in response to this scenario to fill this gap. It was thus hypothesized as below;

*Ho<sub>1</sub>*; There is no significant relationship between perceived ease of use and MSE performance in Kenya

*Ho<sub>2</sub>*; There is no significant relationship between Perceived usefulness and MSE performance in Kenya

*Ho<sub>3</sub>*; There is no moderating effect of innovative behaviour on the relationship between perceived ease of use and MSE performance in Kenya.

*Ho<sub>4</sub>*; There is no moderating effect of innovative behaviour on the relationship between perceived usefulness and MSE performance in Kenya

## 2.0 Theoretical framework

The Technology Acceptance Model (TAM) is supported by concentrating on technical problems (Davis, 1989). This model relates to the behavioural intentions of individuals and their use of IT. It is proposed that a person's actual behavior is dictated by his behavioral intent to use, which is in turn affected by the attitude of the consumer towards the technology's perceived usefulness. However, by ease of use, attitude and perceived usefulness are both decided. The implementation of the TAM model includes an appreciation of the usefulness and user-friendliness criteria of end-users (Pedersen, Leif, Methlie & Thorbjornsen, 2002). Usefulness and perceived ease of use from this model influence the attitudes of consumers towards any service. Davis (1993) indicates that it is important to value user specifications based on perceived usefulness and the perceived ease of use of the technology rather than using other quantitative measure.

Wang, Wang, Lin and Tang (2003) were interested in defining the variables that decide user acceptance of internet banking. According to the Technology acceptance Model (TAM), principles of perceived ease of use and perceived usefulness are considered important for assessing the acceptance and use of different information technology (IT). Such beliefs cannot completely explain the actions of the consumer towards newly emerging IT, such as electronic payment. Using the TAM as a theoretical framework. Wang et al. (2003) introduces "perceived reputation" as a new element that represents the protection and privacy issues of the consumer in the acceptance of IT using TAM as a theoretical context. As a result, technology acceptance model affect performance. Thus, to avoid being overtaken by technology advancement, MSE owners are expected to evaluate performance of their business and make sound decisions with regard to technology (Celik & Isaksson, 2013).

In addition to technology acceptance model, entrepreneur innovation theory was used to support the study. Schumpeter (1949) indicated that Innovation takes place when an entrepreneur launches a new product or manufacturing method, opens up a new market, finds a new source of raw materials, or introduces a new company to the industry. Schumpeter

(2005) also argued that entrepreneurship is about integrating capital in new ways, such as the development of new goods, new manufacturing methods, the discovery of new markets, the detection of new sources of raw materials / inputs and the setting of a new market or industry norm that changes the market equilibrium in the economic systems. As a key to entrepreneurship, Drucker (2005) considers innovation, capital and entrepreneurial behavior. According to him, entrepreneurship includes increasing the value or consumer loyalty of resources, developing new values and incorporating existing materials and resources in a new and efficient manner. Anchoring on technology acceptance model and entrepreneur innovation theory, conceptualization was thus made between technology acceptance model, innovative behaviour and MSE performance in Kenya.

### **Relationship between Perceived Ease of Use and Performance of MSEs**

Tobbin (2011) combined TAM and DoI to investigate key factors that affected the adoption and usage of mobile money transfer by Ghanaian consumers. To collect information, a self-administered questionnaire was used. The most important determinants of behavioral intention to use mobile money transfers in Ghana were found to be perceived ease of use and perceived usefulness. It has also been found that perceived confidence, trialability and perception of risk have a major impact on behavioral intention to use technology. Selvanathan, Pei Jun Tan, Tan Fei Bow, Supramaniam (2016) examined the effect of cost, customer experience, ease of use and trust in online banking adoption. The questionnaire was distributed in Kota Damansara, Selangor, Malaysia, to 120 online banking users. The findings showed that consumer trust and familiarity have a major relationship with online banking adoption. Nevertheless, the expense and ease of use in this study were found to have insignificant effect on online banking.

Al-Sharafi, Arshah, Herzallah, Alajmi, (2017) investigated the Impact of Perceived Ease of Use and Usefulness on Customer Intention to Use Online Banking Services: The Perceived trust as a Mediator was included in the study. This analysis was performed through empirical evidence from the Jordanian commercial banks survey. This research used an extended Technology Acceptance Model (TAM) structure. The data was analyzed using Partial Least Squares (PLS), which consisted of 198 questionnaires administered to bank clients in Jordan. The results indicated that trust increases if users perceive online banking to be useful whereas perceived ease of use fails to predict Jordanians' intention to accept and use online banking. Perceived trust also mediates partially the impact of perceived usefulness on the intention to use online banking services.

## **Relationship between Perceived Usefulness and Performance of MSEs**

Chong et al, (2010) investigated the factors that included perceived usefulness, perceived ease of use, confidence and government support which showed some effect on the adoption of online banking services in Vietnam. The total sample of 156 individuals selected via the process of the survey, in which 66 percent is the response rate showing the available sample of 103, calculated through correlation as well as multiple regression analysis was employed. Based on the factors that emphasize the use of online banking services, usefulness, confidence and government support was perceived to show a major impact on technology adoption while perceived ease of use was found to be insignificant according to the model of technology acceptance. It suggests that the bank establish new directions as well as good strategies and also enhance the privacy and security of the website services, which helps to develop trust. In addition, government would play an important role in growing the adoption of online banking services.

Herzallah and Mukhtar (2016) examined the effect of Perceived Usefulness, Ease of Use and Confidence on the adoption of e-Commerce Services by managers in Palestine's small and medium-sized enterprises (SMEs). The research used a survey conducted by 250 Palestinian SME managers. Using a structural equation modelling (SEM) method via partial least square (PLS) software, the data was analyzed. The results showed that perceived confidence and perceived usefulness had positive effects on the behavioral intention of the participating managers to implement e-Commerce services. It also found that the understanding of the manager, including its perceived ease of use, greatly influenced their perceived trust in the use of e-Commerce services. In addition, perceived ease of use had a major influence on perceived usefulness. Hamid et, al, (2015) investigated the relationships between the variable of the indicator (perceived usefulness and perceived ease of use) and the criterion variable that is the purpose to use e-government continuity. The questionnaire was completed by a total of 543 government servants who taught in Malaysian public schools and became participants in this research. Multiple analysis of regression was applied. The findings show that perceived usefulness and perceived ease of use were positively linked to the intention of continuing to use e-government and were able to ascertain a difference of 56 percent in total.

## **2.0 Research Methodology**

### **2.1 Research design**

The study adopted explanatory research design. Explanatory design looks for cause of certain relationship that exists between variables. The design was selected since it allowed the researcher to investigate the relationship between technology acceptance model, innovative behaviour and MSE performance in Vihiga County Kenya.

## 2.2 Target population

The targeted individuals from which data was obtained in order to make logical conclusions (Kothari, 2014), a target population of 5915 consisting of Micro and Small Enterprises located in Vihiga County, Kenya as shown in table 1 below were selected.

**Table 1: Target Population**

Sub County	Population
Emuhaya	579
Hamisi	1561
Luanda	1176
Sabatia	1234
Vihiga	1365
<b>Total</b>	<b>5915</b>

**Source:** County Government of Vihiga (2018)

## 2.3 Sampling procedure and the Sample Size

The study employed multi-stage sampling technique to select the sample size. First, the study used clusters to select the sub counties. The study further employed proportionate stratified sampling technique to select MSEs to participate in the study. With reference to Table 2 below, the population was put into five clusters representing the five sub counties in Vihiga County. This is dividing the study population into homogenous groups known as clusters. Proportionate stratified sampling technique was used to select the respondents in each sub county as was classified into various MSE sector according to (Neuman, 2014). Thereafter, the study picked the owner or the manager in each of the sampled units as the unit of analysis. The key reason being that IT related decisions are often the preserve of the two. For instance, the researcher began by selecting MSEs to participate in study from Emuhaya where out of the total 579 MSEs, only 44 were selected. Proportionate to each sector, out of 53 MSEs in manufacturing sector, 4 were selected to participate in the study. The procedure was repeated for the other three sectors; service, traders and agribusiness for Emuhaya. Thereafter the researcher proceeded to the second Sub County until the last one. The advantage of this method was that it allowed the researcher to obtain a sample that best represented the entire population under study (Neuman, 2014).

**Table 2: Sampling Frame**

MSE Sectors									
Sub County	Manufacturing		Traders		Services		Agri-business		Total (n)
	N	n	N	n	N	n	N	n	
<b>Emuhaya</b>	53	4	168	13	107	8	251	19	<b>44</b>
<b>Hamisi</b>	153	12	432	33	355	27	621	48	<b>120</b>
<b>Luanda</b>	160	12	349	27	261	20	406	31	<b>90</b>
<b>Sabatia</b>	123	9	372	29	236	18	503	39	<b>95</b>
<b>Vihiga</b>	143	11	385	30	426	33	411	32	<b>106</b>
<b>Total</b>	<b>632</b>	<b>48</b>	<b>1706</b>	<b>132</b>	<b>1385</b>	<b>106</b>	<b>2192</b>	<b>169</b>	<b>455</b>

**Key:** N- Target Population, n-Sample Size

**Source:** County Government of Vihiga (2018)

#### 2.4 Data Collection Instruments and Procedures

Primary data was obtained from MSEs operating in Vihiga County by the researcher. The advantage of using primary data is that, researchers obtain information for the specific purposes of their study. Essentially, the researchers' questions were tailored to produce the data that allowed them to study. Primary data thus provided useful insights that may not be captured by secondary data. Quantitative data was collected since it can be subjected to statistical analysis.

Questionnaires were used to collect data from MSEs seeking services from the Vihiga County Government. Mugenda and Mugenda, (2003) found that questionnaires were used for a wider sample to collect quantitative information. Due to confidentiality, it also guarantees objective answers. They also allow the researcher to compare responses to different items, thus minimizing subjectivity and allowing quantitative analysis to be used. The researcher used a standardized, structured questionnaire. The questionnaires used five point Likert Scale ranging from Strongly Agree (SA) to Strongly Disagree (SD). The questionnaires was administered to the MSE groups operating in Vihiga County at a personal level. This enabled them explain to the MSE the purpose of the study; clarify meanings, interpretations and any other issues that came up. The approval to carry out the research was obtained from the selected commercial banks before carrying out the research. The questionnaires were presented to the MSEs who were seeking various services from the banks in Vihiga County Government. The researcher introduced herself to the respondents and request for their consent. The questionnaire was presented to them and collected either on the same day or as per the client's convenience.

## 2.5 Data analysis procedures

To evaluate the relationship between these variables, the descriptive statistics for the variables of interest were first calculated, followed by a correlation analysis. Second, the purpose of the research was to investigate the relationship between the technology acceptance model and the performance of MSE. Finally, the purpose of the study was to investigate the moderating effect of innovative behavior on the relationship between the acceptance model of technology and the performance of MSE. Multiple regression was used to analyze data.

## 3.0 Research Findings and Discussion

### Demographic Profile of Respondents

The respondents' demographic profile information includes: age, gender, level of education, designation and ownership of the business. The findings are presented below in Table 3.

**Table 3: Demographic Profile of Respondents**

Profile	Description	Frequency	Percent
<b>Gender</b>	Female	208	51.7
	Male	194	48.3
	<b>Total</b>	402	100.0
<b>Age</b>	Below 25	66	16.4
	26-30	98	24.4
	31-35	81	20.1
	36-40	70	17.4
	Above40	87	21.6
	<b>Total</b>	402	100.0
<b>Education level</b>	None	5	1.2
	Primary	53	13.2
	Secondary	132	32.8
	Certificate	80	19.9
	Diploma	70	17.4
	Bachelor	41	10.2
	Postgraduate	21	5.2
<b>Total</b>	402	100.0	
<b>Business ownership</b>	Sole Proprietorship	284	70.6
	Partnership	72	17.9
	Company	46	11.4
	<b>Total</b>	402	100.0

<b>Designation</b>	Owner	309	76.9
	Manager	93	23.1
	<b>Total</b>	402	100.0

**Source: Researcher (2019)**

As indicated in Table 3, majority of the MSEs owners/ managers were females with a proportion of 208 (51.7%), while males constituted 194 (48.3%), which means that although the majority of respondents are female, the population of males is more than one third of the sample population. In terms of age of respondents, who were the owners/ managers of MSEs, the results indicated that 66 (16.4%) were below 25 years of age, 98 (24.4%) were between 26 to 30 years, 81 (20.1%) were between 31 and 35 years, 70 (17.4%) were between 36-40 years and 87 (21.6) were above 40 years of age. This reveals that majority of respondents for this study are at the youthful stage which is an age full of energy, and thus the MSEs are at the right stage to make decisions that can enhance performance of their enterprises. Education level has an impact on how people respond to different opinions. The study sought to find out the education level of the respondent where 5 (1.2%) of the respondents had no education, 53(13.2%) were primary school leavers, majority 132 (33.9%) were secondary school leavers, 80 (19.4%) certificate level, 70 (16.9%) diploma level, 41(10.4%) bachelor's degree and 21 (5.1%) postgraduate level. This implies that majority of the respondents had tertiary level education (colleges and polytechnics and university level education, then secondary level). Therefore, we make the general conclusion that a large percentage of the entrepreneurs were well educated and as a consequence, would be able to choose and adopt e-banking technology in their enterprises. The study further sought to identify business ownership, findings indicated that 284 (70.6%) of the MSEs were solely owned, 72 (17.9%) was a partnership while 46 (11.4) were companies. This implies that Most of the MSEs in Vihiga County were privately owned. Finally, 309 (76.9%) were the actual MSE owners and 93 (23.1%) were MSE managers. This was beneficial as getting more owners resulted in a higher degree of authenticity of the knowledge obtained as they were well versed with all the difficulties they have faced since its inception while doing the business.

### **Descriptive Statistics for Technology acceptance and Innovative Behaviour**

For all variables in the sample, the means, standard deviations, and correlation findings were as shown in the table below. Perceived usefulness had the highest mean of 4.1747 with a standard deviation of .69817 from the results, while perceived ease of use had the lowest mean of 4.1188 with a standard deviation of .70697 from the results. With a standard deviation of .94858, MSE performance had a mean of 4.6397, while innovative behaviour had a mean of 4.1598 with a standard deviation of .60541. In addition, for all variables, the Cronbach Alpha

was above .7, suggesting that reliability was in the agreed range. The aim of the correlation analysis was to show both the intensity and direction of the interaction of the research variables. Correlation findings show that all variables were positively correlated with perceived usefulness having the highest relationship  $r = .701$ ,  $p < .01$ , followed by innovative behavior  $r = .638$ ,  $p < .01$ , while ease of use  $r = .499$  was the least as shown in the table below.

**Table 4: findings of Means, standard deviations, reliability and correlations.**

Variables n=402	M	SD	Reliability( $\alpha$ )	Correlation1	2	3
MSE performance	4.6397	.94858	.900			
Perceived ease of use	4.1188	.70697	.905	<b>.499**</b>		
Perceived usefulness	4.1747	.69817	.898	<b>.507**</b>	<b>.701**</b>	
Innovative behaviour(IB)	4.1598	.60541	.896	<b>.470**</b>	<b>.557**</b>	<b>.638**</b>

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Source:** Researcher (2019).

### Hypothesis testing

Before testing hypothesis one, the control variables were included in the model. The findings in the table 5 reveals that gender  $\beta = -.085$ ,  $p > .05$ , age  $\beta = -.024$ ,  $p > .05$  and education  $\beta = -.016$ ,  $p > .05$  were found to have insignificant effect on MSE performance. However, they contributed .4% of variance to MSE performance. Hypothesis H<sub>1</sub> stated that perceived ease of use had no significant effect on MSE performance. Control variables which included gender  $\beta = -.045$ ,  $p > .05$ , age  $\beta = -.024$ ,  $p > .05$  and education  $\beta = -.024$ ,  $p > .05$  had an insignificant effect on MSE performance. However, the findings indicated that perceived ease of use had a positive and significant effect on MSE performance with coefficient estimates of .383 with  $p < .05$ . The study further indicated that the model explained 29.6% of the variance on MSE performance with  $R^2 = .30$ ,  $\Delta R = .296$ ,  $F = 83.773$ ,  $p < .05$ . The  $\Delta R^2$  of .296 indicates that perceived ease of use contributes 29.6% of the variance on MSE performance while holding constant control variables, thus the null hypothesis was rejected.

Hypothesis H<sub>2</sub> stated that perceived usefulness had no significant effect on MSE performance. The control variables were included in the model. The findings in the table 5 reveals that gender  $\beta = -.002$ ,  $p > .05$ , age  $\beta = -.025$ ,  $p > .05$  and education  $\beta = -.014$ ,  $p > .05$  had an insignificant effect on MSE performance. Furthermore, the findings indicated that perceived usefulness had a positive and significant effect on MSE performance with coefficient estimates

of .325 with  $p < .05$ . The study further indicates that this model explains 2.2 % of the variance on MSE performance with  $R^2 = .322$ ,  $\Delta R^2 = .022$ ,  $F = 13.113$ ,  $p < .05$ . The  $\Delta R^2$  of .022 indicates that perceived ease of use contributes 2.2 % of the variance on MSE performance while holding constant control variables and perceived ease of use variables, thus the null hypothesis was rejected.

**Table 5: Results for Technology Acceptance Model, innovative behaviour on MSE performance**

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	3.800***	.494ns	-.078ns	3.075**	3.089*
Gender	-.085ns	-.045ns	.002ns	.037ns	.037ns
Age	-.024ns	-.024ns	-.025ns	-.032ns	-.033ns
Education	-.016ns	-.024ns	-.014ns	-.012ns	-.012ns
Perc. Ease of use		.383***	.325***	-.521ns	-.511ns
Perc. Usefulnes		.415***	.281***	.308***	.295ns
Inov. Behavior			.317***	-.495ns	-.498ns
PerEase × InvBehav				.207**	.205ns
PerUsef × InovBehav					.003ns
$R^2$	.004	.300	.322	.335	.335
$\Delta R^2$	.004	.296	.022	.013	.000
F	.493ns	83.773***	13.113***	7.656***	.001ns

Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ , ns= Not significant, Dependent variable MSE Performance

### Moderating Effect of Innovative Behaviour on technology acceptance model and MSE performance

Hypothesis H<sub>3</sub> stated that innovative behaviour has no moderating effect on perceived ease of use and MSE performance. The control variables (gender, age and education) were included in the model. Age ( $\beta = -.037$ ,  $p > .05$ ), ( $\beta = -.032$ ,  $p > .05$ ) and education ( $\beta = -.012$ ,  $p > .05$ ) insignificantly affected MSE performance. Furthermore, perceived ease of use had a negative and insignificant effect ( $\beta = -.521$ ,  $p > .05$ ) on MSE Performance while innovative behaviour had a negative and insignificant effect ( $\beta = -.495$ ,  $p > .05$ ) on MSE performance. However, innovative behaviour ( $\beta = .207$ ,  $p < .05$ ) moderated the relationship between perceived ease of use and MSE performance. The model explains 1.3% of the variance between perceived ease of use and MSE performance with ( $R^2 = .335$ ,  $\Delta R^2 = .013$ ,  $F = 7.656$ ,  $p < .05$ ). The beta weight suggests

that the interaction of innovative behaviour and perceived ease of use had a positive effect on MSE performance, hence the influence was significant. Therefore, innovative behaviour significantly moderated the relationship between perceived ease of use and MSE performance. Thus, this hypothesis was rejected.

Hypothesis H<sub>4</sub> stated that innovative behaviour has no moderating effect on perceived usefulness and MSE performance. The control variables (gender, age and education) were included in the model. Age ( $\beta = -.037$ ,  $p > .05$ ), ( $\beta = -.033$ ,  $p > .05$ ) and education ( $\beta = -.012$ ,  $p > .05$ ) had an insignificant effect on MSE performance. Furthermore, perceived usefulness had insignificant effect ( $\beta = .295$ ,  $p > .05$ ) on MSE Performance while innovative behaviour had a negative and insignificant effect ( $\beta = -.498$ ,  $p > .05$ ) on MSE performance. Additionally, innovative behaviour had no contribution to the model. As indicated in table 5 the regression coefficient of the interaction term of innovative behaviour and perceived usefulness on MSE performance is ( $\beta = -.003$ ,  $p > .05$ ). The beta weight suggests that the interaction of innovative behaviour and perceived usefulness had no effect on MSE performance, hence the influence was not significant. Therefore, innovative behaviour does not significantly moderate the relationship between perceived usefulness and MSE performance. Thus, we fail to reject this hypothesis.

#### **4.0 Summary of the findings, conclusion and Recommendation**

##### **Summary of the findings**

The study predicted that perceived ease of use had no substantial relationship with MSE performance in testing for hypothesis 1. The outcome of this study shows that perceived ease of use has an effect on the performance of MSE. Literature and previous studies confirm the conclusions. For example, a study by (Nyaga (2013) investigated current awareness and acceptance of different mobile money services to determine whether the adoption of mobile money services had any effect on the growth of SMEs through profitability. The study found that there was a major contribution of mobile money to the SME market. In contrast to the formal banking sector, the majority of traders depend on it for their regular transactions. Typically, ease of use is connected to inherent IT features and this influenced customer's attitude towards e-banking and its acceptance, as it uses a highly complex banking transaction system. A strong correlation between ease of use and the desire to use technology has been found in studies (Curran & Meuter, 2005). Perceived ease of use therefore had an effect on MSE performance (Schierz et al. (2010). Therefore, perceived ease of use has proved to have an effect on MSE performance. Thus null hypothesis is dismissed.

Hypothesis two proposed that perceived usefulness had no major impact on the performance of MSE. The findings revealed that perceived usefulness had a positive and significant effect on MSE performance. The results are in agreement with (Hanafizadeh et al. ,

2014) who argued that the willingness of a person to use a particular system for their transactions depends on their perception of its use. Perceived usefulness was found to have a major positive impact on MSE performance. If an invention is considered to have more advantages than its predecessor, it is more beneficial to a customer (Hanafizadeh, Keating, & Khedmatgozar, 2014). The improved performance of MSEs is as a result of perceived usefulness in this analysis. The impact of perceived ease of use and usefulness on clients' intention to use online banking services was explored by Al-Sharafi et al. (2017): The mediating role of perceived trust. The results showed that trust increases if users consider online banking to be beneficial, although perceived ease of use does not predict the intention of Jordanians to embrace and use online banking.

Hypothesis three proposed that innovative behaviour had no moderating effect on the relationship between perceived ease of use and MSE performance. The findings showed that the interaction was positive and statistically significant ( $\beta=.207, p<.05$ ). This then revealed that innovative behaviour significantly moderated the relationship between perceived ease of use and MSE performance. This being an enhancing moderation, it meant that as innovative behaviour is high, there is an increase in perceived ease of use as well as MSE performance. Therefore the objective was attained and the hypothesis rejected. The findings of this study on the moderating effect of innovative behaviour on the relationship between perceived ease of use and MSE performance contributes to new knowledge in the entrepreneurship research field.

The results from hypothesis four of the study further indicated that innovative behaviour had no moderating effect on perceived usefulness and MSE performance. The explanation could be that for any technology to be adopted, there are many factors that necessitate the adoption process, as has been posited by (Rogers & Singhal, 2003). Adoption is the decision to make full use of an invention as the best possible course of action. Rejection is, on the other hand, a decision not to implement an invention, which, in this case, might be that innovative behaviour might not necessitate the relationship between perceived usefulness and MSE performance. The current research finding therefore confirms that innovative behaviour does not moderate the relationship between perceived usefulness and MSE performance. Based on the study results, we argue that new insight in the field of entrepreneurship research is generated by the moderating effect of innovative behavior on the relationship between perceived usefulness and MSE performance in the study.

## Conclusion

From the study results, technology acceptance model (perceived ease of use and perceived usefulness) had a positive and significant effect on MSE performance. The moderating effect of innovative behaviour on the relationship between perceived ease of use and MSE

performance was significant. Therefore, innovative behaviour moderates the relationship between perceived ease of use and MSE performance. However, the moderating effect of innovative behaviour on the relationship between perceived usefulness and MSE performance was insignificant. Based on the findings, we conclude that innovative behaviour manifests no moderation with regard to perceived usefulness and MSE performance. The findings of this study can assist entrepreneurs to make decisions with regard to adoption of e-banking system due to its benefits as well as ease of use. The findings of this study further provide an insightful explanation to entrepreneurs to embrace emerging technologies such as e-banking technology in their enterprises as part of their strategy towards obtaining competitive advantage over their competitors.

### **Recommendations**

This study may not have exhaustively included all the constructs of technology acceptance model. It only focused on two among many constructs; perceived ease of use and perceived usefulness. A further review of other constructs may identify additional variables and other possible mediators and intervening variables, which may broaden the range of influence between these characteristics and MSE performance. The positive results achieved should help, encourage and increase exposure to the variables of the technology acceptance model, innovative behaviour and MSE performance. It is therefore critical that small and medium-sized businesses, in conjunction with banks, continuously develop and upgrade their technology use in order to increase their performance. It is also of importance to the government to provide adequate regulatory framework that will encourage the use of technology in the MSE sector. That way, MSEs' confidence in the use technology for transactions in the business would improve. By designing more friendly, easy to use and effective applications for MSEs to adopt this technology, network service providers should improve the service to attract more customers.

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### **Authorship and Level of Contribution**

All the authors contributed equal to the research writing and revision of the work

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