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# EFFECT OF PERCEIVED EASE OF USE OF E-BANKING TECHNOLOGIES ON PERFORMANCE OF MICRO AND SMALL ENTERPRISES IN VIHIGA COUNTY, KENYA. MEDIATING ROLE OF E-BANKING TECHNOLOGY ADOPTION

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#### ABSTRACT

The study examined the relationship between the perceived ease of use of e-banking technology and the mediating effect of e-banking technology adoption on the performance of MSEs in Vihiga County, Kenya. The study employed explanatory research design. Results indicated that perceived ease of use of e-banking technology had a positive and statistically significant effect on MSE performance, e-banking technology adoption had a mediating effect on the relationship between perceived ease of use and MSE performance. The findings of this study provide an insightful information to inspire MSEs to embrace e-banking technology in their enterprises as part of their strategic move towards obtaining competitive advantage over their competitors and to enable them achieve their objective of profit maximization, hence improved performance. Therefore, other institutions should take advantage of e-banking technology innovations to provide improved customer services in the face of competition and offer faster services that enhance performance.

**Keywords:** Effect, Perceived Ease of Use, E-Banking Technologies, Performance, Micro, Small Enterprises, Vihiga County, Kenya

#### **1.0 INTRODUCTION**

Performance refers to an ongoing process that involves managing the criteria for which an institution, agency or project can be held accountable (Duranti, 2010). These criteria are represented as components parts of an internal system and cover the institution's ability to control financial expenses, satisfy staff, deliver timely interventions and respond to target group reactions to interventions. Performance of a business refers to the ability of the business to meet the required standards, increase market share, improve facilities, ensuring returns on profitability and total cost reduction and once this is achieved, a business is believed to be performing effectively (Cruz, Justo, & De Castro, 2012).

Business performance is a multidimensional concept, and different indicators have been used in past literature to measure performance. Researchers have examined both financial and nonfinancial measures as well as domestic and international firm performance. Financial measures are more often used in MSE performance research and include different measures of growth and profitability while non-financial indicators include such company's measures as owner

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satisfaction, global success ratings, goals achievement, and other indicators (Awwad & Akroush, 2016). This paper focuses on the financial and non-financial performance of small and micro enterprises (SMEs) in Kenya.

Shifts in population demographics as well as technological changes, fluctuating economies and other dynamic forces have transformed the operations of Micro and Small Enterprise (MSE) as never before, bringing new challenges and opportunities to the forefront all over the world. There is an increased emphasis on entrepreneurship by governments, organizations and the public with regard to these shifting forces (GEM, 2012). E-banking technology has been recognized as a key determinant for an organization's growth and profitability. E-banking technology has been related to high firm growth superior performance, and longevity (Soininen, Puumalainen, Sjögrén, Syrjä, & Durst, 2013). E-banking technology offers various benefits to MSEs such funds transfers, make payments, pay bills, receive payments, check account balances which in turn reduces transaction costs and establish greater control over bank accounts (Frank, Kessler, & Fink, 2010).

In Kenya, the introduction of mobile money system (MPESA) services in 2007 and banks' introduction of automated teller machines (ATMs) and point of sale (POS) infrastructure has increased the adoption of e-banking technology. Data from the Central Bank of Kenya (2017) indicate that the number of POS machines grew from 973232 in 2013 to 1783281 in 2017, debit cards increased from 2877999 in 2013 to over 8 million cards by the end of 2017 while mobile banking transactions increased from 68,000 per annum in 2013 to over 130 million transactions per annum in 2017. However, the micro and small enterprises are lacking behind in the adoption of e-banking technology as they are mostly affected with limited access to financial services (Asad, Shabbir, Salman, Haider, and Ahmad (2018). The current study, therefore, investigated Perceived ease of use of e-banking technology on performance of micro and small enterprises (MSEs) in Vihiga County, Kenya.

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

Tobbin and Kuwornu (2011) combined the Technology Adoption Model (TAM) and DoI to investigate key factors that influenced Ghanaian consumers' acceptance and use of mobile money transfer. A self-administered questionnaire was used to collect data. Perceived ease of use and perceived usefulness were found to be the most significant determinants of behavioural intention to use mobile money transfer in Ghana. Perceived trust, trailability and perceived risk were also found to significantly affect behavioural intention.

Selvanathan, Tan, Bow, and Supramaniam (2016) examined the impact of cost, customer experience, ease of use, and trust on the adoption of online banking. Questionnaire was distributed to 120 online banking users in Kota Damansara, Selangor, Malaysia. The results showed that customer trust and experience have significant relationship towards adoption of online banking. Nonetheless, cost and ease of use was found to be insignificant in this study. The results offer important information for bank providers in designing a mass-oriented or user-friendly internet banking that would attract people to adopt online banking.

Al-Sharafi, Arshah, Herzallah, and Alajmi (2017) examined the effect of perceived ease of use and usefulness on customers' intention to use online banking services, focusing on the mediating role of perceived trust. This study was done through empirical evidence from the

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survey conducted in Jordanian commercial banks. An extended TAM framework was used in the study. Partial Least Squares (PLS) was used to analyze the data, which was composed of 198 questionnaires conducted with bank's customers in Jordan. The results indicated that trust increases if users perceive online banking to be useful whereas perceived ease of use fails to predict 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.

Kones (2014) investigated the factors influencing the use of mobile banking by small and medium Enterprises in Nakuru Central Business District in Kenya. This study, based on a cross-sectional survey, was conducted through the administration of questionnaires. The findings revealed that trust and security, perceived cost, perceived convenience and information communication technology knowledge and skills had a positive influence on a use of mobile banking. The study wind up that security was one of the major factors when it came to using mobile banking, followed by usefulness and trust.

In another study that focused on how technology use can contribute to effectiveness of teaching and learning, Morrone, Gosney, and Engel (2012) reported that "iPads were found to increase student engagement by providing innovative and creative learning environments, despite the effort required of both students and instructors to make adjustments to the technology". Though this study revealed difficulties for faculty and students as they learned how to work with new technologies, the gains reported included relationship building between faculty and students participating in this learning curve together and increased student interest and creativity. Additionally, and most relevant to the current study, this work reports gains of greater levels of student engagement, opportunities to create new kinds of learning environments and activities, and the ability to extend learning opportunities outside the classroom (Morrone et al., 2012).

### 1.1 Mediating role of E-banking Technology Adoption

Igudia (2017) examined factors influencing the adoption and use of electronic payment systems (EPS). A qualitative analytical approach has been adopted in this study. 4 Small and Medium Enterprise owners/managers and 2 officials of two different Banks the Central Bank of Nigeria (CBN) and United Bank for Africa (UBA) were interviewed. Data collected from the interview were processed and analyzed. The study found out that safety and security concerns in an environment characterized by relative high levels of criminality encouraged e-payment adoption but limited the extent of its use among SMEs in Nigeria. Apart from the ease, convenience, monitoring and speed of doing business, another critical aspect of perceived benefits is safety and security.

Masocha and Dzomonda (2018) investigated the drivers of the adoption of mobile money services and the subsequent performance of Small and Medium Enterprises (SMEs) in Zimbabwe. The research used the quantitative research method with a descriptive research design. 160 SMEs participated in the survey and data was collected through the use of self-administered questionnaire in a survey. Participants in the study were selected owner/ managers of SMEs in the rural places in Zimbabwe sampled using the convenience sampling technique. Data analysis included descriptive statistics, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modelling (SEM). SEM was used to test hypotheses and the results indicated that benefits of mobile money and challenges in traditional

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financial services influenced firm adoption of mobile money services. Conclusively, the study established that subsequent adoption of mobile money services has an influence on the performance of SMEs.

In Tanzania, Chale and Mbamba (2015) examined the role of mobile money services on growth of small and medium enterprises where data was collected from respondents in Kinondoni District in Dar es Salaam Region. Data was collected using self-administered questionnaires, which were distributed to 100 respondents, who yielded a 90% return rate. Multiple regression analysis was used to test the role of increased volume of sales, efficiency in purchase of stock, reduced time in processing payments, payments of goods and services, improved habit of savings, and money transfer on business growth in terms of market share, revenue and profitability. Based on technology adoption theories, the study findings revealed that small and medium enterprises use mobile money services in various ways for business purposes, which include sales transactions, efficiency in purchase of stock, receiving payment, payment of goods and services, savings as well as money transfer that influenced their business growth.

InterMedia (2013) investigated uptake, use and market potential of mobile money services in Tanzania. The survey involved 2,980 households. The data was collected via questionnaires and interviews. The study revealed that the majority of registered mobile money users for business purposes used it primarily to purchase inventory and receive payments for goods and services. It was also found that there was no difference among rural, urban and peri-urban registered users in the way they used mobile money services for business.

Tumaini (2016) assessed the impact of mobile money services on the growth of MSMEs in Nkasi District in Rukwa, Tanzania. The cross-sectional research design was adopted in this study, where stratified random sampling was used to select respondents from population. Questionnaires were distributed to 100 MSMEs owners and managers in different strata namely; Kasu, Chala, Namanyele, Kilando and Kabwe. The binary logit regression analysis was used to analyze the data to observe the relationship between variables. The study found that sales, purchases of stock and paying for services through mobile money services had positively significant influence on the growth of MSMEs. Furthermore, the study found that, saving and credits receiving as well as reduced cost are positively insignificant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs. Mobile money services have significant influence on the growth of MSMEs.

#### **1.2 Statement of the Problem**

Literature has shown that micro and small enterprises generate employment, raise household income, are the source of goods and services, and complement the process of adjustment to large enterprises by bringing linkages for products and services (Mobile Money Services (Bosire & Ntale, 2018). Furthermore, MSEs form dynamic supply-chain linkages between small-scale producers and lucrative urban, national, or export markets. For example, in 2011 the MSE sector sale of goods and services in neighbouring Uganda and Tanzania was the main driver of revenue growth in 76% of all the MSEs. Moreover, they drive competition and innovation by introducing new business methods, products and services. They also drive industrialization and enhance enterprise culture, which is a seedbed for entrepreneurial

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pursuits. MSE performance is critical as it leads to opportunity seizing, value creation and market access.

However, in managing their enterprises, MSE owners face several challenges which include; limited capital and equipment to start and run, employ low level of skills, low level of organization with little access to organized and international markets (Bougaardt & Kyobe, 2011). They also have limited access to formal credit; owners and workers have low levels of education and training, inadequate IT facilities which result to losses. Okpara Ejoh and Okpa (2014) argued that venturing into small business is very risky and that the rate of small businesses failure in developing countries is very high. There is concern over the cost of running the business that is associated with cash handling like theft, pilferage, hiring of security firms to assist in transportation of money to the bank among other issues related to cash handling.

Whereas e-banking technology is the key to the development and growth as well as the survival of vibrant enterprises, its adoption by MSEs in Kenya is below expectation (Group, 2017). This is despite the Kenya Government commitment in facilitating MSEs in accessing and adopting e-banking technology, facilitating infrastructural support with the objective of enhancing enterprise performance through legislation of various policy documents through the Ministry of Science and Technology. It is against this backdrop that the current research sought to fill the existing gap by assessing the effects of perceived ease of use of e-banking technology on MSE performance in Vihiga County, Kenya. Based on literature reviewed, the study was guided by the following hypotheses:

**H01:** Perceived ease of use has no significant effect on MSE performance in Vihiga County, Kenya.

**H02:** E-banking technology adoption has no mediating effect on the relationship between Perceived ease of use and MSE performance in Vihiga County, Kenya.

## 2.0 MATERIALS AND METHODS

The study was undertaken in Vihiga County in Western Kenya. It was quantitative in approach and adopted explanatory research design. In order to select Vihiga County, random sampling method was applied to select participants through use of lottery technique. Data from KES (2009); Statistics (2017) and County Government of Vihiga (2018) showed that there had been an increase in the number of registered MSEs in the County in the last six years. They attributed this increase to the introduction of devolved government that had led to development in different sectors of the County economy. The research was interested in establishing how well the MSEs had adopted e-banking technologies as they carried out business transactions as well as how such adoption had impacted their performance. This research was therefore of its kind as MSE dealing with e banking technology.

The target population for the study consisted of micro and small enterprises located in Vihiga County, Kenya. The list of registered MSEs in the County obtained from the County Administration under the Department of Licensing was indicated as 5,915 as at December 2018 which formed the target population for this study. The study population consists of registered MSEs from sub-counties in Vihiga County and the unit of analysis was all the MSEs while the

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unit of observation was owners/managers in Vihiga County. Table 1 shows the distribution of MSEs per Sub-County from Vihiga County.

**Table 1: Target Population** 

Sub-County	Population	
Emuhaya	579	
Hamisi	1561	
Luanda	1176	
Sabatia	1234	
Vihiga	1365	
Total	5915	

Source: County Government of Vihiga (2018)

The sample size was determined from all the MSEs that were registered by the County Government of Vihiga. Out of the target population of 5915, a sample size of 455 owners/managers was chosen. This was considered satisfactory for an explanatory research design as indicated by Zikmund, Babin, Carr, and Griffin (2012), that a sample of between 400 and 500 is deemed very good for explanatory design. The study employed multi-stage sampling technique which involved clustering and proportionate sampling techniques. The population was split into five clusters representing the five sub-counties in Vihiga County and the businesses were also clustered under different categories: manufacturing, traders, services and agri-business. The study further employed proportionate stratified sampling technique to select MSEs to participate in the study. Table 2 shows the selection of MSEs per Sub-County from Vihiga County.

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

### Table 2: Sampling Frame

Key: N- Target Population, n-Sample Size

Source: County Government of Vihiga (2018)

The research picked the owners or managers in each of the sampled units as the units of analysis. The key reason for selecting the owners or managers was that IT-related decisions are

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often the preserve of the two. The researchers 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. The researcher employed Yamane (1967) formula to determine the sample size based on 5% margin of error/ level of precision and 95% level of confidence.

The researcher used structured questionnaire to collect quantitative data from MSE managers/owners. The questionnaires were administered by the researcher with aid of trained research assistants (2). This study had one dependent variable, one independent variables and a mediator. The independent variables were; perceived ease of use, dependent variable was MSE performance and mediator was e-banking technology adoption. All the variables were measured using 5-point Likert scale.

MSE performance was a measurement of the degree of the organizational goal achievement. Profitability was used to measure MSE performance. The dimension of profitability was measured using a set of 7 items adopted and modified from Hughes and Morgan (2007) in the questionnaire. Indicators included "Income from e-banking has high margin hence contributing positively to enterprise annual profitability", "e-banking have low maintenance costs leading to high levels of profitability over their economic lifetime". The dimensions of perceived ease of use was measured using 11 items adopted from Wang and Ahmed (2009), with modifications to suit the study. Indicators for perceived ease of use included "Using electronic banking requires little mental effort" and "Learning to operate electronic banking is easy for me". The dimensions of e-banking technology adoption was measured using 9 items adopted from (Chong, 2013; Rawashdeh, 2015) with modifications to suit the study. Indicators of e-banking to pay my utility bills", "I use e banking to transfer money," among others.

Data analysis involved identifying analysis tools, using various tests by each research objective of the study. Each item in the questionnaire was coded and entered into SPSS software. Checking and cleaning of data which involved checking for inconsistencies, and missing responses to ensure accuracy and completeness of the instrument. Descriptive statistics was used to analyze data for classifying and summarizing numerical data and confirmed the need for continuing with further data analysis (Somekh & Lewin, 2011). This provided a basis for inferential statistics using correlation and regression analysis. It included the analysis of data using frequencies, dispersions of dependent and independent variables and measures of central tendency and variability and to obtain a feel for the data (Saunders, Lewis, & Thornhill, 2012; Sekaran & Bougie, 2010). The study results were summarized using frequencies, percentages, means and standard deviations. Correlational tests were used to establish whether an association exists between two variables, the direction and extent in which two or more variables are related (Sekaran & Bougie, 2010). The values of the correlation coefficients vary from a value of +1.00 to a value of -1.00 which represents extremely perfect relationships.

### 3.0 RESULTS AND DISCUSSION

3.1 Descriptive Statistics for Perceived Ease of Use of E-Banking Technology by MSEs

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The study examined the effect of perceived ease of use on MSE performance. The findings indicate that the managers and owners of enterprises agreed that e-banking requires little mental effort (mean = 4.07, standard deviation= 0.921, skewness=-1.178, kurtosis= 1.548). The implication is that the enterprises had the ability to adopt e-banking technology as it is perceived easy to use. As a result, there is improved profitability. Moreover, the managers and owners of MSEs understood most of the operations they performed during transactions (mean= 4.17, standard deviation= 0.856, skewness=1.061, kurtosis= 1.076). The implication is that managers and owners of MSEs were knowledgeable on the use of e-banking technology. Besides, they agreed that learning to operate e-banking is easy (mean = 4.15, standard deviation= 0.881, Skewness=-1.176, kurtosis= 1.478). Consequently, employees and owners had it in mind that the organization values them hence they are motivated to work towards attaining E-banking is an easy way to conduct a banking transaction (mean = 4.24, standard deviation= 0.829, Skewness=-1.215, kurtosis= 1.800).

In addition, the managers and owners of MSEs agreed that information displayed on the screen during electronic banking is clear, well-organized and easy to read (mean = 4.14, standard deviation= 0.855, skewness= -0.974, kurtosis= 0.769). On the issue that e-banking platform offers information in more than one language, the results summed up to a mean of 4.07, a standard deviation of 0.970, skewness of -0.943 and kurtosis of 0.253). Furthermore, managers and owners of MSEs agreed that e-banking system is flexible to interact with (mean=4.13, standard deviation= 0.874, Skewness= -1.342, kurtosis of 2.355).

The results on willingness to use e-banking frequently summed up to a mean of 4.20, standard deviation of 0.877, skewness of -1.381 and kurtosis of 2.096. Lastly with regard to whether the managers and owners of MSEs understand the terms and conditions of e banking since they are simple and clear, the results summed up to a mean of 4.05, standard deviation of 0.974, skewness of -1.007 and kurtosis of 0.601. This findings implies that that managers and owners perceived e banking technology easy to use and has changed the lives and operations of individuals and organizations respectively. Table 2 below illustrates the results as explained above.

Items	Min	Max	Mea	Std.	Skew	Kurtosis
			n	Deviation	ness	
Using e-banking requires	1	5	4.07	021	-	1 5 1 9
little mental effort.	1	5	4.07	.921	1.178	1.340
I understand most of the						
operations I perform during	1	5	4.17	.856	-	1.076
any transaction					1.001	
Learning to operate e-	1	5	1 15	001	-	1 170
banking is easy for me	1	5	4.13	.001	1.176	1.4/0
E-banking is an easy way to						
conduct a banking	1	5	4.24	.829	-	1.800
transaction.					1.213	

#### Table 3: Descriptive Statistics for Perceived Ease of Use of E-Banking Technology

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Information displayed on					
the screen during electronic	1	5	1 1 1	855 074	760
banking is clear, well-	1	5	4.14	.033974	.709
organized and easy to read.					
The e-banking platform					
offers information in more	1	5	4.07	.970943	.253
than one language.					
I find e-banking system	1	5	113	874 -	2 3 5 5
flexible to interact with	1	5	4.13	.874 1.342	2.333
I am willing to use e-	1	5	4 20	877 -	2 006
banking frequently	1	5	4.20	.677 1.381	2.090
I understand the terms and					
conditions of e-banking	1	5	4.05	07/ -	601
since they are simple and	1	5	4.05	1.007	.001
clear					
Average	1	5	4.14	0.893 -1.142	1.331

#### **3.2 Perceived Ease of Use on MSE Performance**

The study hypothesized that perceived ease of use had a significant influence on MSE performance. However, the research findings in Table 3 showed that perceived ease of use had coefficients of estimate which was significant basing on  $\beta 1 = .508$  (p-value = which is less than  $\alpha = 0.05$ ). Therefore, the null hypothesis was supported and it was concluded that perceived ease of use had a significant effect on MSE performance. This suggested that there was up to 0.508 unit increase in MSE performance for each unit increase in perceived ease of use.

M	odel	Unstandardized Coefficients		Standardize d Coefficients	Τ	Sig.
		В	Std.	Beta	_	
			Error			_
2	Gender	092	.087	046	-1.059	.290
	Age	034	.031	048	-1.100	.272
	Education	018	.031	025	575	.566
	Perceived ease of	.508	.043	.508***	11.75	.000
	use				5	
	Model summary sta	atistics				
	$\mathbf{R}^2$	.264				
	$\Delta \mathbf{R}$	.256				

#### Table 4: Results for Perceived Ease of Use on MSE Performance

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$\mathbf{F}$	138.17	
	3	

In line with the objective and the hypothesis postulated in the study, indeed the research findings indicated that perceived ease of use had a positive and statistically significant effect on MSE performance ( $\beta$ = 0.508, p< .05). The study findings agreed with literature reviewed on perceived ease of use and MSE performance. For instance, a study by Nyaga (2017) investigated current awareness and uptake of various mobile money services, to determine if mobile money services uptake had any impact on SMEs growth through increased sales or savings and loan accessibility. The study found that mobile money had made a significant contribution to the MSE sector. Majority of the traders rely on it as opposed to the formal banking sector for their day-to-day transactions. Ease of use is usually related to innate features of IT and this affects a customer attitude towards and adoption of e-banking because it relies on a highly complex system for performing banking transactions. Studies have revealed a positive association between ease of use had an effect on MSE performance (Schierz, Schilke, & Wirtz, 2010). Perceived ease of use has therefore proven to have an effect on MSE performance and thus the null hypothesis was rejected.

Mediating Effect of E-Banking Technology Adoption on the Relationship between Perceived Ease of Use and MSE Performance.

Hypothesis two stated that e banking technology adoption has no mediating effect on the relationship between perceived ease of use and MSE performance.

First step is to determine whether perceived ease of use has a relationship with e-banking technology adoption. Results in table 5 reveals the findings of this procedure. The study shows that all control variables in this model were insignificant as they all had p>.05. Additionally results of perceived ease of use indicates a  $\beta$ =.683, p<.05 indicating a positive and significant effect on e-banking technology adoption. Furthermore, the study findings shows that all the variables in this study account for 47.6% of the variance on e-banking technology adoption as shown by R2=.476 with a significant F=90.220, p<.05. These findings fulfil the requirement of the first procedure as suggested by MacKinnon (2012) as indicated that X must have a relationship with M

Table 5 model 2 shows the results of b1 and C' side of figure 3.1 which was meant to determine the effect of e-banking technology adoption on MSE performance and direct effect of ebanking technology characteristics on MSE performance. The results reveal that all the control variable were insignificant in this model as indicated by p>.05. Additionally the findings indicated that e-banking technology adoption has a significant effect on MSE performance with  $\beta$ =.324, p<.05, hence supporting equation Y=b0+C+b1M+E. Furthermore this model was used to test the effect of perceived ease of use on MSE performance. The findings in table 5 shows that e-banking technology characteristics has  $\beta$ =.287, p<.05 showing a significant effect on MSE performance. All the variables in this model explain 31.9% of the variance on MSE performance as shown by R2=.319 with F=37.124, p<.05

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Since a1 and b1 were significant, the process of mediation was possible by calculating the product of  $a1 \times b1$ 

Results in Table 5 indicate that (a × b =.683×.324=.221) with confidence interval, CI= .146, .303. Since confidence intervals from the bootstrap analysis are both positive and non-zero, H2 is therefore rejected. Findings further in model 3 shows the results of total effect ( $\beta$ =.508, p<.05) which is equal to direct effect ( $\beta$ =.287, p<.05) +indirect effect ( $\beta$ =.221, p<.05) which indicates that perceived ease of use had a significant relationship with MSE performance but when the mediator is introduced, then there is an increase on the relationship between independent and dependent variables.

Zhao, Lynch Jr, and Chen (2010) presented a unified criteria for establishing mediation, understanding the particular type of mediation, and translating the data patterns uncovered into theoretical statements. In this study, mediated effect (a  $\times$ b) and direct effect (c) both existed and pointed at the same direction which is known as complementary mediation. The product of a× b× c for H2, (.683×.324×.287=.113) was positive and hence signaling complementary mediation.

	ETA (a <sub>1</sub> )=M1		$PF(b_1)=1$	M2	Total effect=M	13	
		$\beta pv$	β	PV	β	pv	
Gender	059	.246	060	.444	.064	444	
Age	035	.052	.016	.559	018	.559	
Education	028	.119	.004	.878	.005	878	
Perceived ease of use	<sup>of</sup> .683	.000	.287	.000	.508	.000	
E-banking techr adopt	1.		.324	.000			
R2	.476		.319		.264		
F	90.220*	**	37.124*	**	35.654**	**	
$\overline{\text{Mediation}} = a_1 \times I$	Mediation= $a_1 \times b_1$ = .683×.324 = <b>.221;</b> CI=.146, .303						

# Table 5: Results for mediating effect of e-banking technology adoption on the relationship between perceived ease of use and MSE performance.

Note: \*\*\*p < .001, Dependent variable: MSE performance

Source: Researcher (2019).

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#### 4.0 CONCLUSION AND RECOMMENDATIONS

Based on the research findings, it is evident that perceived ease of use has a positive and statistically significant effect on MSE performance. Specifically, mobile technologies have made a significant contribution to the MSE sector. Majority of the traders rely on it as opposed to the formal banking sector for their day-to-day transactions. Moreover, it is evident that most of the MSE owners and managers have a clear understanding of the basic functions of mobile money services which has contributed to a positive impact on performance of their enterprises. Furthermore, the study found out that there is a mediating effect of e banking technology adoption on the relationship between e banking technology characteristics and MSE performance. The findings were consistent with Igudia (2017) which found out that e banking technology adoption. The relationship between perceived ease of use and MSE performance mediated by e banking technology adoption returned a complementary mediation verdict. Drawing from the findings, it can be concluded that e banking technology adoption has a mediating role on the relationship between perceived ease of use and MSE performance.

The findings of this study provide an insightful information to inspire MSEs to embrace ebanking technology in their enterprises as part of their strategic move towards obtaining competitive advantage over their competitors and to enable them achieve their objective of profit maximization, hence improved performance. Other institutions should take advantage of e-banking technology innovations to provide improved customer services in the face of competition and offer faster services that enhance performance. The fact that e-banking technology adoption indicated a complementary mediation contributes to new knowledge in this study.

#### REFERENCES

- Al-Sharafi, M. A., Arshah, R. A., Herzallah, F. A., & Alajmi, Q. (2017). The Effect of Perceived Ease of Use and Usefulness on Customers Intention to Use Online Banking Services: The Mediating Role of Perceived Trust. International Journal of Innovative Computing, 7(1).
- Asad, M., Shabbir, M., Salman, R., Haider, S., & Ahmad, I. (2018). Do entrepreneurial orientation and size of enterprise influence the performance of micro and small enterprises? A study on mediating role of innovation. Management Science Letters, 8(10), 1015-1026.
- Awwad, A., & Akroush, M. N. (2016). New product development performance success measures: an exploratory research. EuroMed Journal of Business.
- Bosire, J. M., & Ntale, J. F. (2018). Effect of Mobile Money Transfer Services on the Growth of Small and Medium Enterprises in Informal Sector of Nairobi County, Kenya. International Journal of Information Research and Review, 5(3), 5326-5333.
- Bougaardt, G., & Kyobe, M. (2011). Investigating the factors inhibiting SMEs from recognizing and measuring losses from cybercrime in South Africa. Paper presented at the ICIME 2011-Proceedings of the 2nd International Conference on Information

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ISSN 2583-0333

Management and Evaluation: ICIME 2011 Ryerson University, Toronto, Canada, 27-28 April 2011.

- Chale, P., & Mbamba, U. (2015). The role of mobile money services on growth of small and medium enterprises in Tanzania: Evidence from Kinondoni district in Dar es Salaam region. Business Management Review, 17(1).
- Chong, A. Y.-L. (2013). Mobile commerce usage activities: The roles of demographic and motivation variables. Technological Forecasting and Social Change, 80(7), 1350-1359.
- Cruz, C., Justo, R., & De Castro, J. O. (2012). Does family employment enhance MSEs performance: Integrating socioemotional wealth and family embeddedness perspectives. Journal of Business Venturing, 27(1), 62-76.
- Curran, J. M., & Meuter, M. L. (2005). Self-service technology adoption: comparing three technologies. Journal of services marketing.
- Duranti, L. (2010). From digital diplomatics to digital records forensics. Archivaria, 68, 39-66.
- Ejoh, N., & Okpa, I. (2014). Challenges and benefits of the cash-less policy implementation in the Nigerian economy. European Journal of Business and Management, 6(26), 24-32.
- Frank, H., Kessler, A., & Fink, M. (2010). Entrepreneurial orientation and business performance—a replication study. Schmalenbach business review, 62(2), 175-198.
- GEM, G. E. M. (2012). Global report. SR Xavier et al.
- Group, W. B. (2017). World development indicators 2017: World Bank.
- Hughes, M., & Morgan, R. E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. Industrial marketing management, 36(5), 651-661.
- Igudia, P. O. (2017). A Qualitative Evaluation of the Factors Influencing the Adoption of Electronic Payment Systems (SMEs) by SMEs in Nigeria. European Scientific Journal, ESJ, 13, 31.
- InterMedia. (2013). Mobile Money in Tanzania: Use.

KES. (2009). Economic Survey 2009.

Kones, B. (2014). Factors Influencing Use of Mobile Banking Among Small and Medium Enterprises in Nakuru Central Business District.

MacKinnon, D. (2012). Introduction to statistical mediation analysis: Routledge.

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

- Masocha, R., & Dzomonda, O. (2018). Adoption of Mobile Money Services and the performance of small and medium enterprises in Zimbabwe. Academy of Accounting and Financial Studies Journal.
- Morrone, A. S., Gosney, J., & Engel, S. (2012). Empowering students and instructors: Reflections on the effectiveness of iPads for teaching and learning. Educase Learning Initiative.
- Nyaga, K. M. (2017). The impact of mobile money services on the performance of small and medium enterprises in an urban town in Kenya.
- Rawashdeh, A. (2015). Factors affecting adoption of internet banking in Jordan. International Journal of Bank Marketing.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). Research methods for business students (6. utg.). Harlow: Pearson.
- Schierz, P. G., Schilke, O., & Wirtz, B. W. (2010). Understanding consumer acceptance of mobile payment services: An empirical analysis. Electronic commerce research and applications, 9(3), 209-216.
- Sekaran, U., & Bougie, R. (2010). Research for Business–A Skill Building Approach: John-Wiley and Sons, New York, NY.
- Selvanathan, M., Tan, P. J., Bow, T. F., & Supramaniam, M. (2016). The Impact of Cost, Customer Experience, Ease of Use, and Trust towards Adoption of Online Banking. International Business Research, 9(11), 235-241.
- Soininen, J. S., Puumalainen, K., Sjögrén, H., Syrjä, P., & Durst, S. (2013). Entrepreneurial orientation in small firms-values-attitudes-behavior approach. International Journal of Entrepreneurial Behavior & Research.
- Somekh, B., & Lewin, C. (2011). Theory and methods in social research: Sage.
- Statistics, K. N. B. o. (2017). Economic survey 2017: Kenya National Bureau of Statistics Nairobi.
- Tobbin, P., & Kuwornu, J. (2011). Adoption of mobile money transfer technology: structural equation modeling approach. European Journal of Business and Management, 3(7), 59-77.
- Tumaini, I. N. (2016). The Impact of mobile money services on the growth of micro, small and medium enterprises in Nkasi district council. Mzumbe University.
- Wang, Y., & Ahmed, P. K. (2009). The moderating effect of the business strategic orientation on eCommerce adoption: Evidence from UK family run SMEs. The Journal of Strategic Information Systems, 18(1), 16-30.

Yamane, T. (1967). Elementary sampling theory.

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

- Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. Journal of Consumer Research, 37(2), 197-206.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2012). Business Research Methods (9th International ed.). South-Western College Publishing.