

# Effect of Online Banking on Performance of Small and Medium Enterprises in Kisumu County

REV. FR. Leonard Obunga<sup>1</sup>, Dr. Kennedy Ombaba<sup>2</sup> & Joseph Mwanza<sup>3</sup>

Department of Accounting and Finance  
The Catholic University of Eastern Africa

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## Abstract

Ideally, the Small and Medium Enterprises (SMEs) sector plays significant role in the economy of Kenya particularly as far as establishment of employment/jobs is concerned. Technological innovations such internet banking model which eases the complexity of banking transactions and changes the competitive dimensions of the enterprise have the potential of significantly improving SME performance and thus SMEs are expected to be adopting and using them. The actual state in SMEs is that although there is a steady increase in online banking acceptance, not all small and medium enterprises are making use of it. Instead they make use of the traditional banking model. The main objective of this study was to establish the effect of online banking on performance of small and medium enterprises in Kisumu City. The specific objective was to ascertain the effect of communication online banking on performance of small and medium enterprises in Kisumu City. The study was guided by the following research question. How does communicative online banking affect performance of small and medium enterprises in Kisumu County? The researcher employed Descriptive research design to do the study. A sample of 57 respondents was chosen using stratified random sampling and Yamane model of sample size determination from a population of 332 small and medium enterprises in Kisumu town. Data was collected using questionnaires. The data was analyzed using both descriptive and inferential statistics. The study results revealed that communicational online banking had positive effect 0.361 on performance of Small and medium enterprises in Kisumu County. Communicative online banking had a statistical significant effect on performance. The researcher recommends that small and medium enterprises in Kisumu to embrace ICT and communicative online banking as its results to significant SME performance as a result of timely information derived for faster and effective decision making.

**Key words:** Communicational online banking, Performance, SMEs, Kisumu County

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## I. Introduction

Online banking is an electronic innovation in the banking sector that uses mobile network and mobile technology communication to achieve connected mobile phones and other mobile devices banking system and also acquire varying financial via mobile interface of e short messaging services (SMS) (Shaikh & Karjaluo, 2015). The new mode makes it possible for customers to get financial help any place, time and situation, hence making a change to the rule of inter-bank competition. Banks are more focused on provision of services that are professional and personalized; they are no longer concerned with coverage and number of outlets. The propagation of, and fast advancement in systems based on technology that are technology based, especially the ones that have internet connections, are fast ones to experience change in element in the aspect of customer interaction within a company (Baptista & Oliveira, 2015).

Its adoption affects performance of small and medium enterprises. Performance in this case relates to the process of developing enterprises that retains the likelihood of just and steady development of general ranks performance (inclusive of: revenue, sales volume, profit and asset gross) or keeps achieving improvement of overall performance and development quality and level (Tidd & Bessant, 2018). The potential of a firm to grow fast, healthily and continuously means the growth of an enterprise. Any effort organized is intended to generate a profit or economic outcome by providing services or products to an outside group is referred to as an enterprise. The operation of an enterprise originally requires capital and time investment in developing, growing or bettering the business activities (Hillary, 2017).

Online banking has made tremendous performance in the economic development of the country through innovative technology which is consistently cited as one of the greatest challenges faced by small and medium enterprises (SMEs) around the world. It is widely recognized that technology is invaluable for improving efficiency, accuracy, increasing outreach and reducing costs. However, many SME slack sufficient funds to invest in suitable backend technologies, or operates in regions where access to critical infrastructure

such as the Internet remains scarce. Still others sink funds into poor technology investments, or simply choose not to invest, limiting their ability to grow and compete (Khalique, Bontis, Abdul Nassir bin Shaari & Hassan, 2015).

In the global business environment, online banking has tremendously changed performance of SMEs through exhibiting immense dynamisms, which are driven by the increasingly changing innovations in the area of Information and Communication Technologies (ICT). The innovations in banking sector and use of mobile money transfer have continued to permanently alter the rules of SMEs performance and expectations of the new digitized highly inter-linked economies operating in a rather global village.

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In Europe and USA online banking technologies have now penetrated all aspects of small and medium enterprises financial services, both retail and wholesale, back-office and front office, information and transaction. That's why the analysis of e-finance for SMEs in developing countries will be limited to mainly Internet banking and payments, e-trade finance and online credit information and to some extent to possibilities of Internet to disseminate mainly Anglo-Saxon tradition of venture capital and business angels to finance online SMEs in developing countries. Online banking operations represent currently between 5% and 10% of the total retail banking transactions volume both in the USA and in Europe. This is less than the share of Internet securities trading, estimated at between 20 and 25% of the total, but much more than overall business-to-consumer (B2C) e-commerce representing less than 2% of the total retail trade. Thus, in France, the number of online banking accounts is growing at 75% per year and is forecast to reach 10 million by 2003 (Chishti & Barberis, 2016).

In sub-Saharan Africa, Small and medium enterprises (SMEs) are now widely recognized as engines of economic growth and key contributors to sustainable gross domestic product (GDP) of all countries, including those in the Middle East and North Africa (MENA) region. These businesses predominantly operate in the manufacturing and service sectors and create employment opportunities for both skilled and unskilled persons. However, market conditions and regulatory environments are not always supportive of the growth of SMEs and access to formal finance is one of the main obstacles they face. IFC's Financial Institutions Group (FIG) in MENA provides investment and advisory services to the region's banks and other financial institutions to build their capacity in SME banking so that they can profitably and sustainably reach out to the SME sector. This is achieved through online banking services that are providing equity finance, lines of credit, risk sharing facilities, trade finance, disseminating best practices, improving processes and products, and streamlining delivery channels. Ultimately, IFC's goal is to increase the number of banks and financial institutions that offer financial and banking services to SMEs in a profitable and sustainable manner. IFC is recognized globally as an SME finance market leader owing to its global expertise and knowledge.

In Kenya, performance of SMEs has been greatly improved by the use of online banking services attributed high tech innovativeness that is vested in the competitive environment. Online banking services have experienced massive development and unprecedented growth during the past years and it is emerging to be a primary catalyst for economic and social growth (Islam, Muzi & Meza, 2018). However, despite reported few cases in online money transfer theft cases, there is solid background of innovations that guarantees success of small medium enterprises through online banking sector. Majority operators of Small and Medium Enterprises find bank accounts to be inconveniencing since it means they have to leave their businesses for them to make a transaction at the bank; this made necessary for Small and Medium Enterprise operators to use mobile banking. Since launch of mobile money transfer system in 2007, the mobile payment system has become famous with both the unbanked and the banked population (Martin & Kinoti, 2017). This research article sought to determine the effect of communicative online banking on performance of small and medium enterprises in Kisumu County.

## **1.2 Statement of the Problem**

Ideally, the Small and Medium Enterprises (SMEs) sector plays significant role in the economy of Kenya particularly as far as establishment of employment/jobs is concerned. Technological innovations such internet banking model which eases the complexity of banking transactions and changes the competitive dimensions of the enterprise have the potential of significantly improving SME performance and thus SMEs are expected to be adopting and using them. The actual state in SMEs is that although there is a steady increase in

online banking acceptance, not all small and medium enterprises are making use of it. Instead they make use of the traditional banking model. For instance, Ciravegna, Kundu, Kuivalainen and Lopez (2018) found that although Internet Banking is accessible to, not all companies make use of it.

Another factor causing stagnant/slow growth in SMEs is the lack of the ability to acquiring financial resources. Negative thoughts regarding them contribute, which have effect on their capability to get financial services which is being provided by financial institutions. Reason being formal financial sectors thinks of them as not being suitable clients as the amount they transact is small. According to Brennan, Blumenthal, Goodman, Seidman and Meixell (2017), SMEs access to financial institutions is hard because of low levels of capital, poor revenue, and absence of records on finance and assets for securing credit from banks and it affects their growth in return.

Online banking provides technological services that reduce costs; increase income and increases reach ability and mobility. They can help to extend social and business networks and they clearly substitute for journeys and, for brokers, traders and other business intermediaries (Kirui & Onyuma, 2015). While the above studies exist, most of them look at the factors that affect adoption and use of online banking transactions and not how online banking transactions have affected the performance of the small and medium enterprises (Matata & Namusonge, 2015). It is against this basis that this study endeavors to assess the effect of communication online banking on performance of small and medium enterprises in Kisumu County. The remaining sections of this research article is as follows; section 2 covers literature review & hypothesis development, section 3 cover methodology, section 4 results & discussions and section 5 conclusions & recommendations.

## **II. Literature Review & Hypothesis Development**

### **2.1 Communicative Online Banking and Performance of SMEs**

Hoque, Saif, AlBar and Bao (2016) researched on the impact of mobile phone communication on SME performance; a case of selected units. An explanatory research design was used. The target of the study was 4380 business units within Nairobi County, out of which 129 SMEs were sampled. Primary data was sourced through the use of a self-administered, semi-structured questionnaire. The study found that all the three independent variables have a significant influence on SME performance, with operational costs affecting SME performance negatively while efficiency of business operations and marketing and sales affect it positively. The study concluded that the continued use of mobile phone communications by SMEs in Nairobi County and the wider nation can boost the overall performance and profitability of the SMEs. There is low participation by SMEs in developing mobile phone business applications, and this increases their operating costs. The use of mobile money transfers in the SME sector is widespread. Additionally, SMEs use the cheap mobile platform for relying relevant product and market information to customers which reduces operational costs while increasing sales.

Wang, Pauleen and Zhang (2016) examined effect of social media applications affect B2B communication and improve business performance in SMEs. Cross-sectional research design was used. In the findings, Micro and small-sized firms that are clients of BN-Desarrollo make more limited use of IB services than medium-sized firms. The interaction of IB use and other banking variables is important. Access to credit, acquisition of banking instruments, and stronger linkages with Banco Nacional are interrelated with the use of Internet banking. This finding is relevant since fewer than 30 percent of micro and small firms are currently making use of IB for their operations. The limited use of IB might prevent micro and small firms from forging a stronger client-bank relationship and making better use of banking instruments to improve business performance. These results were obtained from BN-Desarrollo client firms' database analysis. They are the starting point for the study that is complemented and enhanced with the analysis of the intervention and control groups.

Wambua and Mugambi (2013) did a study on the effect of multiple banking on the performance of small and medium enterprises in Mombasa, Kenya. The study analyzed the effects of diversity of banking services, diversity of off-balance sheet items, diversity of relationship banking and multiple bank credit facilities on the performance of SMEs. A sample size of 258 SMEs was used, from which the business managers or proprietors were interviewed. The result of the study showed that multiple banking variables: multiple business accounts, diversity of off-balance sheet items and diversity of relationship banking correlated positively with net asset value, profitability and growth of the SMEs.

Gichohi, Nyancha and Dulle (2017) examined the communicative online banking factors affecting the performance of small and micro enterprises (SMEs) traders at Limuru town market in Kiambu County, Kenya. The study employed a descriptive research design to achieve the objectives. The target population under study was the 965 licensed SMEs by Limuru sub-county operating in Limuru Market in 2014. The study used a questionnaire to collect the required data from a sample of 274SMEs. The study results revealed that access to finance and availability of management experience are the key socio-economic factors affecting the performance of businesses in Limuru Town Market. The other key factors that were found to affect businesses

in Limuru Town Market positively are: access to business information, access to infrastructure and government policy and regulations. The study recommended that the government should start offering basic business and financial management skills as this will enable entrepreneurs to make informed investment decisions as well as enhance their entrepreneurial skills that enable them to recognize and exploit the available business opportunities. The literature reviewed led to development of the following hypothesis statement.

*H<sub>1</sub>: Communicative online banking has no significant effect on the performance of small and medium enterprises in Kisumu County.*

### **III. Methodology**

The study adopted a descriptive research design. The research's target population comprised of 332 registered and operational enterprises operating within Kisumu City CBD. The sample size was 57 registered and operational enterprises operating within Kisumu City CBD. The study utilized questionnaires as the main tool of data collection. Questionnaires are measuring instruments that ask individuals to answer a set of questions or respondent to a set of statement (Muriungi, Waithaka & Muriuki, 2017). The respondents were selected using stratified random sampling. The SMEs were stratified according to their business type and then from each stratum, a representative number of businesses was then purposively sampled. To ascertain the reliability of research instruments, a pilot study was carried out. The study further adopted Cronbach's Alpha-coefficient to assess the reliability of the research instrument. The study adopted content validity which was determined in various ways. First, the researcher developed the instrument basing on the research objectives. Secondly, the researcher discussed the items in the instrument with the supervisors, colleagues and other lecturers of the department in the school of education, Moi University. The advice helped the researcher to determine the validity of research instruments. The advice helped the researcher to refine as well as improve on the contents of the research instrument.

The data collected was first sorted, categorized and tabulated. This was followed by data interpretation. Data presentation was in form of tables, charts and figures and these was achieved via SPSS data analysis package. To summarize observations and findings made from the study, descriptive statistics were used for data analysis. Correlation analysis was applied to assess the relationship between communicative online banking and performance of SMEs in Kisumu County. Linear regression was conducted to test the relationship between communication online banking and SME performance.

The analytical model was as follows:

$$Y = \alpha + \beta_1 X_1 + \varepsilon$$

Where:

Y = Performance of small and medium enterprises

$\alpha$  = Constant

X<sub>1</sub> = Communicative Online Banking

$\varepsilon$  = Error term

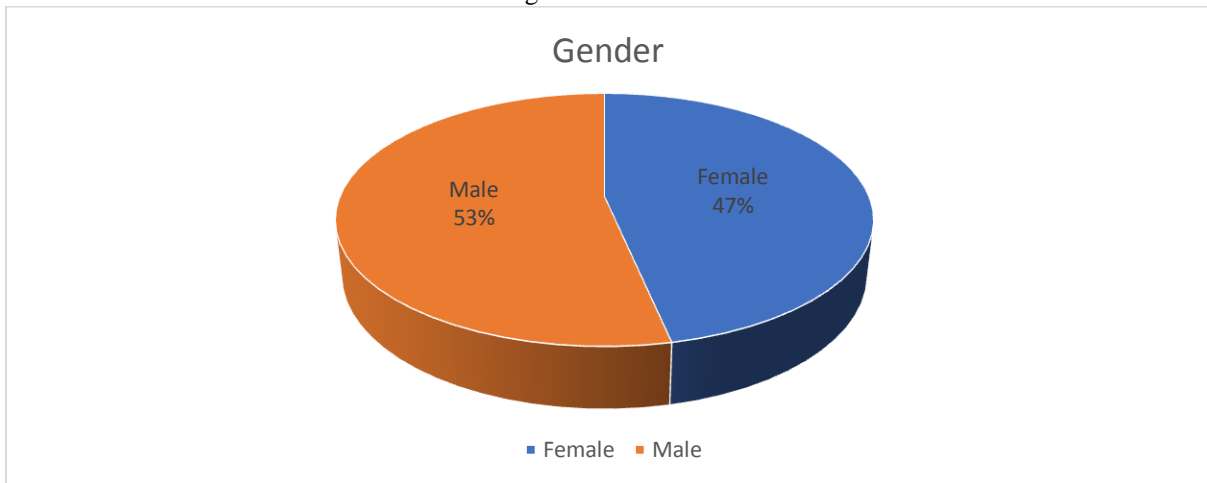
$\beta_1$  = represents Régression coefficient of the independent variable.

### **IV. Results & Discussions**

#### **4.1 Demographic information**

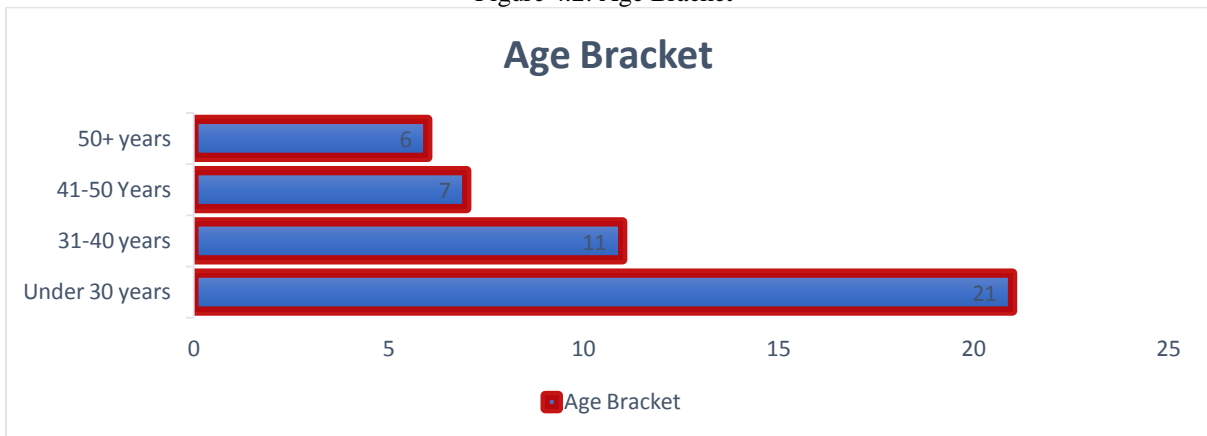
The demographic information of the respondents presented include; gender, age bracket, duration while in this kind of business, role in the business, length of time while working at the enterprise and highest academic qualification. In regards to gender, 47% of respondents were female while 53% of respondents were male. This results were as shown in the figure below.

Figure 4.1: Gender



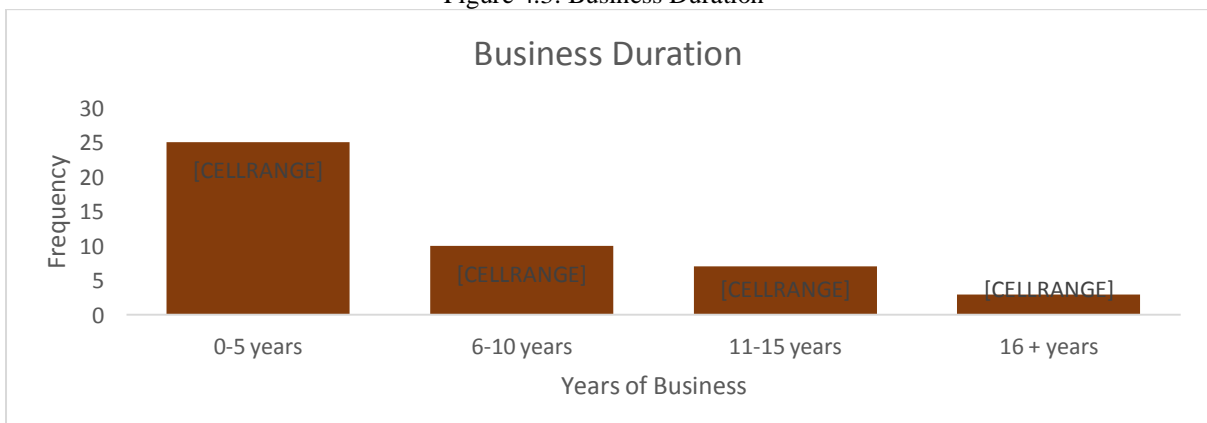
In terms of age bracket, majority of respondents were people aged below 30 years at 47%, followed by people aged 34-40 years. The least guys are aged above 50 years. The results are shown in the figure below.

Figure 4.2: Age Bracket



The researcher further inquire as to how long respondents have been in their businesses. The results are shown in the figure below.

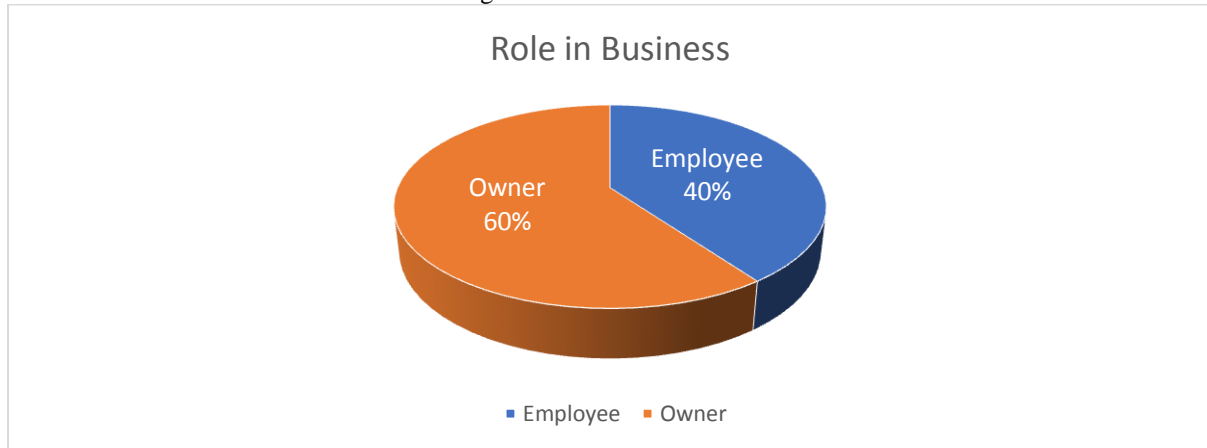
Figure 4.3: Business Duration



From the results, majority 56% have stayed between 0-5 years while those who have stayed for more than 16 years are only 7%. This affirms characteristics of small business that only few exist past 5 years mark.

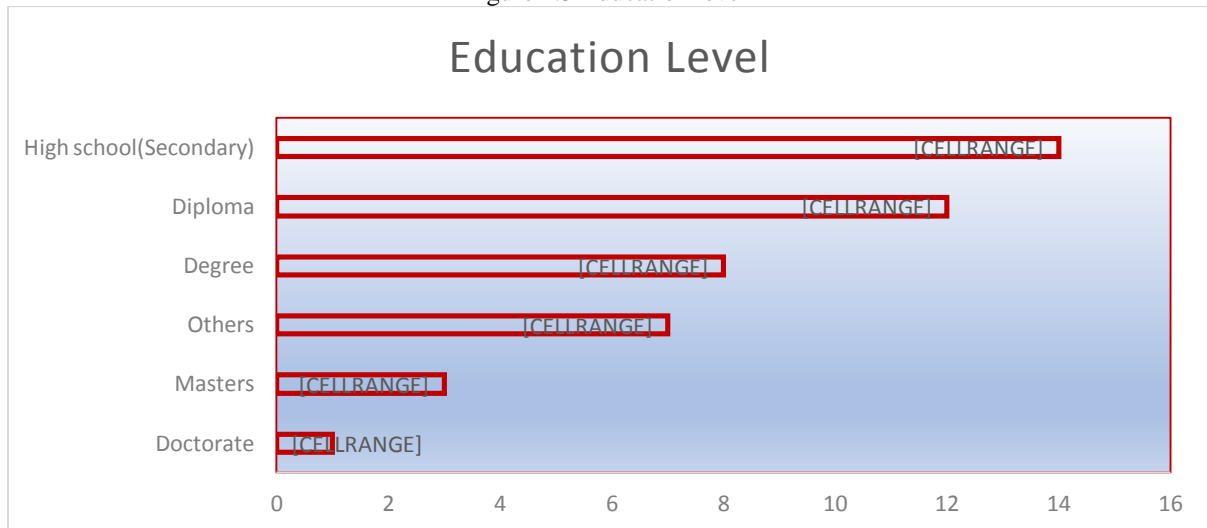
On the respondent role in the business, the results shows that 60% were the owners of the business while only 40% are employees. These further reveals characteristic of small business that they are managed by the owners. The results are shown in the figure below;

Figure 4.4 Role in Business



Lastly, the researcher looked at the education background of the respondent and the results are shown in the figure 4.5.

Figure 4.5 Education level



The results indicates that majority 31% are high school graduates with 27% diploma graduates. Minority that's 2% and 7% are doctorate graduates and masters graduate respectively. These results further shows that high school and diploma graduates are the majority in small scale businesses.

#### 4.2 Correlation analysis

Correlation in the broadest sense is a measure of an association between variables. In correlated data, the change in the magnitude of 1 variable is associated with a change in the magnitude of another variable, either in the same (positive correlation) or in the opposite (negative correlation) direction. Most often, the term correlation is used in the context of a linear relationship between 2 continuous variables and expressed as Pearson product-moment correlation. The Pearson correlation coefficient is typically used for jointly normally distributed data (data that follow a bivariate normal distribution). For non-normally distributed continuous data, for ordinal data, or for data with relevant outliers, a Spearman rank correlation can be used as a measure of a monotonic association. Both correlation coefficients are scaled such that they range from  $-1$  to  $+1$ , where 0 indicates that there is no linear or monotonic association, and the relationship gets stronger and ultimately approaches a straight line (Pearson correlation) or a constantly increasing or decreasing curve (Spearman correlation) as the coefficient approaches an absolute value of 1. Hypothesis tests and confidence intervals can

be used to address the statistical significance of the results and to estimate the strength of the relationship in the population from which the data were sampled. Here where the researcher has produced Pearson correlation of the communication online banking and performance of Small and Medium Enterprises as shown in Table 4.1.

**Table 4.1: Correlation**

		Performance	COB
Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	60	
COB	Pearson Correlation	.498*	1
	Sig. (2-tailed)	.000	
	N	58	58

\*Correlation is significant at the 0.05 level (2-tailed).

From the Table 4.1, for SME performance Pearson correlation for communication online banking,  $r=0.480$ ,  $p=0.00 < 0.05$ . This implies that communication online banking had a weak positive linear relationship with performance of Small and Medium Enterprises at 5% level of significance. This study results resembles that of Hoque et al. (2016) that communication online banking has a positive linear relationship with performance of Small and Medium Enterprises.

**4.3 Regression Analysis**

This section presents regression model summary, ANOVA and the regression coefficient analysis results. The regression model summary results were as follows; R was 0.532 which indicates a significant degree of correlation.  $R^2 = .283$ , the adjusted R-square is 0.243 which indicates that 24.3% of performance can be explained from communication online banking. The remaining 75.7% could be as a result of other external factors outside the scope of independent variables of the study.

**Table 4.2: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.532 <sup>a</sup>	.283	.243	.12394

a. Predictors: (Constant), COB

**4.5 Analysis of Variance**

Analysis of variance (ANOVA) was employed to measure the differences in means between performance and its predictor variables. The results are shown in Table 4.3;

**Table 4.3: Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.327	1	.109	7.097	.000 <sup>b</sup>
	Residual	.830	56	.015		
	Total	1.157	57			

The F-ratio was 7.097 at 1 degree of freedom which is the variable factor. This represented the effect size of the regression model and the model is significant at 95% confidence level ( $p=0.000$ ) indicating that performance of SMEs can be predicted from the aforementioned independent variable.

**Table 4.4: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.597	.186		3.208	.002
	COB	.361	.109	.443	3.324	.002

Table 4.4 above illustrates the regression coefficient of communication online banking on performance of SMEs in Kisumu County. From the findings in Table 4.4, the Beta value of COB is 0.361 indicating positive effect with performance. The p-value is given as 0.002, hence we can conclude that communication online banking has a statistical significance. This led to rejection of the null hypothesis that communicative online banking has no significant effect on the performance of small and medium enterprises in Kisumu County. The same sentiments are echoed by Wang, Pauleen and Zhang (2016) in their study where they examined effect of social media applications affect B2B communication and improve business performance in SMEs. Cross-sectional research design was used. In the findings, Micro and small-sized firms that are clients of BN-Desarrollo make more limited use of IB services than medium-sized firms. The interaction of IB use and other banking variables is important. Access to credit, acquisition of banking instruments, and stronger linkages with

Banco Nacional are interrelated with the use of Internet banking. This finding is relevant since fewer than 30 percent of micro and small firms are currently making use of IB for their operations.

Similar findings were also reported by Wambua and Mugambi (2013) who did a study on the effect of multiple banking on the performance of small and medium enterprises in Mombasa, Kenya. The study analyzed the effects of diversity of banking services, diversity of off-balance sheet items, diversity of relationship banking and multiple bank credit facilities on the performance of SMEs. A sample size of 258 SMEs was used, from which the business managers/proprietors were interviewed. The result of the study showed that multiple banking variables: multiple business accounts, diversity of off-balance sheet items and diversity of relationship banking correlated positively with net asset value, profitability and growth of the SMEs. Therefore, we can conclude that communicative online banking influence performance of SME's.

## V. Conclusions & Recommendations

The study concluded that communication online banking has a significant effect on performance of small and medium enterprises. The study also concluded that online banking has a statistically significant effect on performance of small and medium enterprises. Online banking has tremendously changed performance of SMEs. This is attributed to account enquiries, new account updates, loan or mortgage applications, contact information updates and bank balances update enquiries. Online banking provides technological services that reduce costs; increase income and increases reach ability and mobility. The researcher therefore rejects the hypothesis that there is no effect of communicative online banking on the performance of small and medium enterprises. The study recommends that further studies should be done to establish the significance of communicative online banking in profitability of firms. Studies should be done on how multinational firms are making use of ICT tools of communicative online banking in enhancing operational efficiency.

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