DETERMINANTS OF FINANCIAL INCLUSION AND PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI CITY COUNTY

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Abstract

Purpose: The general objective of this study was to assess the determinants of financial inclusion and performance of small and medium enterprises in Nairobi City County.

Methodology: The study adopted a descriptive research design.

Findings: Determinants of financial inclusion among the SMEs in Nairobi City County included; access, Quality and usage of various financial services. The study revealed that determinants of performance among the SMEs in Nairobi City County included; product/service costs, volume levels traded, profit margins, human resource levels and efficiency levels. The results also identified technological innovations such as MPESA, Mshwari and Agency banking as the most crucial technology factors which played a crucial part in improving their business. The regression results revealed that there was a direct link between the performance levels of SMEs and financial inclusion. Further, the study findings also revealed that technology included platforms like mobile money transfers, ATMs and agency banking eased and ensured inclusion. This was seen as an integral part of inclusion further enhancing the performance of various SMEs.

Unique contribution to theory, practice and policy: This study can be a source of solution to be implemented by government of Kenya and the Central Bank of Kenya to create policies that create room for small and medium enterprises to obtain loans from financial institutions. In addition, the study This study will also create awareness among financial institutions in the importance of usage, access and quality of finances to small and medium enterprises which in turn will enable better performance of enterprises. This will definitely have an effect on social inclusion of citizens and better the economic performance.

The aftereffects of the study would also contribute towards filling the gap on the topic. It is trusted that the discoveries of the study will make significant augmentations to the writing in the field of financial inclusion and performance fortifying further interest.

 Keywords: *Financial Inclusion, Technology, Performance and Small and Medium Enterprises*

INTRODUCTION

Background

Financial inclusion is an intervention strategy that seeks to overcome the market friction that hinders the markets from operating in favour of the poor and underprivileged (Aduda & Kalunda, 2014). According to The Central Bank of Kenya (CBK, 2014), financial inclusion is the delivery of formal financial services in a reliable, convenient, affordable, continuous, and flexible manner to those without access to financial services. The objective of financial inclusion should be advantaging the poor majority who initially do not use formal financial services (Sarma & Pais, 2008). Financial inclusion offers incremental and complementary solutions to tackle poverty, to promote inclusive development and to address MDGs (Aduda & Kalunda, 2012).

Financial inclusion aims at drawing the unbanked population into the formal financial system so that they have the opportunity to access financial services ranging from savings, payments, and transfers to credit and insurance. In this study, financial inclusion means making available required financial services in a reliable and convenient manner to micro and small medium enterprises by the financial institutions. Financial inclusion indicators are: Access; which includes penetration of the bank branches or point of sale devices in rural areas and barriers to access such as costs or information. Usage; which takes into account average savings balances, number of transactions per account, number of electronic payments made. Quality; measures describing capacity of the financial products and services to match clients' needs, the range of options available to customers, and clients' awareness and understanding of financial products and impact; which looks into the influence of inclusion on the enterprises' outcomes, such as an enterprise's level performance or human capital investments (World Bank, 2013).

According to Pierre, (2004) Organizational performance encompasses three specific areas of firm outcomes: (1) financial performance (profits, return on assets, return on investment, etc.); (2) market performance (sales, market share, etc.); and (3) shareholder return (total shareholder return, economic value added, etc.). However, it has been critiqued that financial measures lack predictive ability to explain future performance, reward short-term or incorrect behaviour, provide little information on root causes or solutions to problems, and give inadequate consideration difficult to quantify intangible assets such as intellectual capital. As a result, many firms are supplementing financial metrics with a diverse set of non-financial performance measures that are believed to provide better information on strategic progress and success (Ittner *et al.,* 2003).

Small and Medium Enterprises (SMEs) play an important economic role in many countries. Many governments and development organizations have focused on the promotion of SMEs as a way of encouraging broader participation in the private sector (Kushnir, 2010). The SMEs sector accounts for 60-70 per cent of jobs in most developed and developing countries, and for most of the new jobs created, several countries in Africa have prioritised their investment in SMEs (Iddris, 2012). The MSE definition in this study was taken to mean a business unit(s) with between 1 to 50 employees, whose annual turnover never exceeds 5 million. For enterprises in the manufacturing sector, the investment in plant, equipment, machinery and registered capital should not exceed 50million (Kushnir, 2010).

Financial inclusion is a new phenomenon in Kenya which seeks to reduce poverty and steer economic growth by enabling access to financial services by the people in the lower income

category (FSD Kenya, 2010). The CBK has partnered with FSD and other financial sector players and stakeholders under the private-public partnership arrangement; the Financial Access Partnership (FAP) charged with monitoring and measurement of the levels of access to financial services (FinAccess, 2009). The FinAccess programme does its surveys after approximately three years with the first survey in 2006, the second in 2009 and the latest in 2013. The focus of FinAccess data is mainly on access and usage of specific financial services by individuals of different economic background for the purpose of identifying any difficulties in obtaining services and barriers to usage for different population groups (FinAccess, 2013).

Most studies carried out indicate that most SMEs fail as a result of lack of appropriate financing and appropriate financial services (Amyx, 2005). According to a World Bank study, there are many SMEs in Kenya which, despite their high potential, have been unable to access financing from existing institutions in the financial sector. Such situations may be due to the inability of the enterprise to offer sufficient loan collateral or to operational issues within the enterprise requiring more hands-on assistance than commercial banks and leasing companies, for example, are normally able to provide (World Bank, 2008).

According to Munga (2012) most SMEs lack creditworthiness and management capacity, so they have trouble securing funds for their business activities such as procuring raw materials and products, and investing in plant and equipment. From the external perspective, SMEs are regarded as insecure and costly businesses to deal with because they lack required collateral and have the capacity to absorb only small amount of funds from financial institutions and so they are rationed out in their access to credit because of high intermediation costs, including the cost of monitoring and enforcement of loan contracts. Idowu (2010), claim that one of the major barriers to rapid development of the small and medium enterprises sector is the shortage of both debt and equity financing in the economy. Without finance, micro and small enterprises cannot acquire or absorb new technologies nor can they expand to compete in global markets or even strike business linkages with larger firms (Idowu, 2010).

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In Kenya, the financial Sector Medium Term Plan (MTP); 2012-2017 is one of such programs developed in pursuit of objectives of Kenya's strategic development blue print, under Vision 2030. It sets out the sector priority goals including the need to enhance financial inclusion (FinAccess, 2013). This includes small and medium enterprises (SMEs), which largely comprise those segments which are unserved and underserved by the financial sector, at affordable prices. Also in this line is the Kenya Financial Sector Deepening (FSD) programme, established in 2005 to support the development of financial markets in Kenya as a means to stimulate wealth creation and reduce poverty. It works in partnership with the financial services industry, its main goal being to expand access to financial services among lower income households and smaller enterprise (FSD Kenya, 2010).

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To cover substantial ground towards financial inclusion in third world countries, there is need for financial institutions to focus their attention towards the low-income market which Prahalad and Hart (2002) argue that the low-income market presents a prodigious opportunity for the world's wealthiest companies to seek their fortunes and bring prosperity to the aspiring poor and demonstrates that there is a huge opportunity in serving the lower market segment. Safaricom and Equity Bank are examples of local companies in Kenya that have substantially grown while serving the poor (FinAccess, 2013).

The country has witnessed technological innovations such as short term loans through phones, automated teller machines (ATMs), e-banking and agency banking, and mobile phone money transfer services that have transformed the Kenyan financial sector landscape since 2002. In particular, Mobile telephony in Kenya has allowed expansion and access to financial services to previously underserved by improving access to credit and deposit facilities, allowing more efficient allocation of credit, facilitating financial transfers, and boosting financial inclusion. Agency Banking, MFI's, DTM's and mobile banks have also gone a long way in extending financial services to millions of poor people at relatively low cost (Aduda & Kalunda, 2012).

Research Problem

With an increase in access to financial services by the poor according to FinAccess (2013) survey, there was a concern of need to drive down transactions costs and promote the development of financial services and products that will benefit financial inclusion efforts. This was seen as important given that a quarter of the adult population is still not using any form of formal, semi-formal or informal financial services and products (FinAccess, 2013). The bottom wealth quintile however has not developed enough according to this survey.

The FinAccess, (2009) report points out that low income is the main barrier to expanding access. There are moreover barriers related to documentation requirements and literacy levels. The report further emphasizes that the economic growth up to 2008 motivated demand for financial services in all quintiles except the bottom wealth quintile, which has suffered an economic decline. Most MSEs fall in this lower quintile. The study results showed that in some cases where the services were accessible, some people did not use them. For those who used the services, their main challenges were lack of money, for saving in order to attract more loans, and high charges. This report however portrays national data and further does not have individual assessment of the enterprises which benefit from the financial services. It is therefore not clearly possible to measure how any barrier to inclusivity affects financial inclusion or directly relate the positive or negative performance of an enterprise to terms and conditions of the institutions offering financial services (FinAccess, 2009).

If the institutions terms like costs of finances have some impacts, then to what extent does a business stand to lose or gain by using these finances? The economic decline in the bottom wealth quintile (FinAccess, 2009) indicates that even though more people are having access to both formal and informal financial services, there may be a problem and financial inclusion programs may not be achieving the intended objectives, especially for the SMEs. The study therefore sought to determine whether the performances of the SMEs are in any way affected by financial inclusion factors.

Purpose of the Study

The main aim of this study was to assess the determinants of financial inclusion and performance of small and medium enterprises in Nairobi City County.

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Objectives of the Study

i. To investigate determinants of financial inclusion among the SMEs in Nairobi city county.

ii. To assess the determinants of performance among the SMEs in Nairobi city county.

iii. To assess the technological factors that aid financial performance among Nairobi City County.

iv. To analyze the effects of determinants of financial inclusion on the performance given technology in Nairobi city county.

THEORETICAL REVIEW

This section focuses on financial inclusion theories.

Financial Growth Perspective

Theories on the financial growth argue that financial development creates a productive environment for growth through supply leading (financial development spurs growth) or demand-following effect (growth generates demand for financial products) (World Bank, 2008). These theories also perceive the lack of access to finance as a critical factor responsible for persistent income inequality as well as slower growth. Access to safe, easy and affordable source of finance therefore is recognized as a pre-condition for accelerating growth and reducing income disparities and poverty which creates equal opportunities, enables economically and socially excluded people to integrate better into the economy, and actively contribute to development, and protect themselves against economic shocks (Serrao, 2012).

Theoretical disagreements do exist about the role of financial systems in economic growth. Some economists see the role as minor while others see it as significant. The demand following view as supported argues that the financial system does not spur economic growth; rather the financial system simply responds to development in real sector. The supply leading proponents contrasts the former view. The origin of the finance-led growth hypothesis argues that the existence of an energetic financial sector has growth enhancing effects. Schumpeter (1911) posited that banks enable an economy to grow by providing efficient markets for funds.

According to Levine (1996) also emphasize the positive role of financial systems in economic growth as cited by Aduda (2012). Therefore, the main argument of proponents of the supply leading theory is that, financial markets evolve in response to increased demands for financial services from an already budding economy. Therefore, the development of financial markets is a reflection of growth in other sectors of the economy. Majority of the theories have established a positive link between financial development through inclusion and economic growth. Financial Inclusion ensures sustainable access to, and use of appropriate financial services. This financial inclusion framework considers demand-side (consumers) and supply-side (financial sector providers) factors that ultimately affect the inclusions/exclusion of individuals hence relevant to this study.

Financial Intermediation Theories

Financial intermediation is seen as the extent to which financial institutions bring deficit spending units and surplus spending units together (Ndebbio, 2004). Arguments point out that, banks are able to effectively monitor borrowers and thus play the role of delegated monitoring (Diamond, 1984). Diamond (1984), asserts that intermediaries provide services by issuing secondary financial assets to buy primary financial assets. If an intermediary provided no

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services, investors who buy the secondary securities issued by the intermediary might as well purchase the primary securities directly and save the intermediary's costs.

In theories stressing entrepreneurship, financial market imperfections determine the extent to which talented but poor individuals can raise external funds to initiate projects. Thus, the evolution of financial development, growth and intergenerational income dynamics are closely intertwined. Finance influences not only the efficiency of resource allocation throughout the economy but also the comparative economic opportunities of individuals from relatively rich or poor households; access to finance attempts to reduce market frictions.

Information asymmetry is a situation where by the one party has more or better information than the other (Chibba, 2009). Dermirguc-Kunt and Levine (2009) argue that reducing financial market imperfections to expand individual opportunities creates positive incentive effects. These models show that lack of access to finance can be the critical mechanism for generating persistent income inequality or poverty traps, as well as lower growth. In summary, the theoretical models cited above point out five main roles that financial intermediaries play namely: acquisition of information on borrowers, provision of risk reduced agreements, accumulating capital, improve corporate governance and ease the transaction process.

METHODOLOGY OF THE STUDY

The study used descriptive research design. The target population was 236 SMEs in the city out of which a sample of 30 respondents were interviewed. This study used primary data collected using questionnaires. The study pre-tested 5 questionnaires prior to conducting the main study. The quantitative data that were obtained from the questionnaires were coded and keyed into statistical package of social science (SPSS) analysis software for analysis.

RESULTS OF THE STUDY

Demographic Characteristics

The respondents were required to provide information about their gender, age, level of education and business category. The results revealed that majority of the respondents, 56.7% were male compared to the 43.3% females. The results also indicated that the age bracket of 30-40 was most frequent, at 56.7%, followed by that of 18-30 and 40-50 at 23.3% each. The brackets of 20-50 an above 60 were least frequent, at 10.0% each which implies that majority of the respondents were relatively young. Further, the results revealed that secondary and tertiary levels of education had the highest respondent representation at 40% and 36.7% respectively, while other category had the least representation at, 10.0%. The results also showed a well spread representation of business category, although the category of hardware shops was more frequent at 26.7%. The least representation is in the other, unnamed business category. This means that the respondents were involved in various businesses as a source of income.

Descriptive Statistics

Determinants of Financial Inclusion among the SMEs in Nairobi City County

Ownership of Bank Account

The study sought to find out whether the respondents owned a bank account, majority of the respondents, 90%, agreed that they did. Just 10% did indicate owning an account. **Distance between Financial Institution and Business**

Information was sought on how far the respondents' financial institution was from the business.

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Table 1: Distance of Financial Institution from Respondents' Business

Distance	Frequency	Percent
Below 10 km	30	100.0
Between 10-50km	0	0.0
Above 50 km	0	0.0

Results in Table 1 above show all the respondents indicated that the distance from one's business to the financial institution was below 10 km. This means that there was ease of access to the financial services, further implying greater financial inclusion.

Multiple sources of Income

The study sought to understand if the respondents had more than one source of finance for their business. This was in a bid to know the extent to which they had access to finances necessary to run their businesses.

Table 2: Use of Multiple Sources of Income

Response	Frequency	Percent
Yes	27	90.0
No	3	10.0
Total	30	100.0

The results in Table 2 above indicate that nearly all the respondents, 90.0% had multiple sources of income. Just three, translating to 10.0% had single source of business finance.

Table 3: Alternative Sources of Finance

Source of finance	Frequency	Percent
Family and friends	20	18.9
Chamas and Merry-go-rounds	30	25.5
Individual lenders	27	28.3
SACCOs	25	23.6
Hand outs	4	3.8

The results shown in Table 3 indicate that chamas and merry-go-rounds, at 28.3% comprised the largest source of alternative source of finance for the respondents, followed by individual lenders. The least frequent alternative source of finance was handouts, at 3.8%. The results imply that the respondents made use of a variety of sources to obtain the necessary funds for their businesses. Results in Table 3 also showed that all the respondents, 100% agreed that they had taken a loan at one point or another from any one of the financial sources they had named.

Making Loan Remittances

The respondents also had to state what mode they used for making loan remittances to the financial source they had named.

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Table 4: Mode of Loan Remittance

Mode of loan remittance	Frequency	Percent
Mobile money transfer	21	70.0
Bank account	4	13.0
Cash	5	17.0
Total	**30**	**100**

The results in Table 4 above show that most respondents, 70%, made their loan remittances through mobile money transfer. The rest used bank account (13%) and cash (17%). This indicates greater penetration of mobile money transfer in Nairobi County.

Rating of Indicators of Financial Inclusion

Three major indicators of financial inclusion were targeted for rating. These included access, quality and usage.

Access

Access is an indicator of financial inclusion was targeted for rating and the results presented in Table 5 below.

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Table 5: Access

Access	Strongly disagree %	Disagree%	Neutral%	Agree%	Strongly% agree	Total
I have an active bank account with a credible financial institution	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
My bank is located at a convenient distance from my business	0(0)	0(0)	20.0 (6)	53.3 (16)	26.7 (8)	100.0 (30)
I make use of alternative sources of finance including family and friends, chamas and merry-go-rounds, individual lenders and SACCOs	0(0)	0(0)	16.7 (5)	60.0 (18)	23.3 (7)	100.0 (30)
Sometimes I depend on hand outs for my business	0(0)	0(0)	6.7(2)	53.3 (16)	40.0 (12)	
I regularly take loans from my financial sources with relative ease	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
Making remittances through a number of ways including bank, mobile money transfers and cash	0(0)	0(0)	20.0 (6)	26.7 (8)	53.3 (16)	100.0 (30)
Making remittances through a number of ways including bank, mobile money transfers and cash	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
There were no hidden charges by the bank that affects the business	0 (0)	0 (0)	20.0 (6)	26.7 (8)	53.3 (16)	100.0 (30)

Quality

Quality as an indicator of financial inclusion was targeted for rating and the results presented in Table 6 below.

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Table 6: Quality

Quality	Strongly disagree %	Disagree%	Neutral%	Agree%	Strongly% agree	Total %
The loans required no pledging of goods as security	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
The interest rate offered was affordable and reasonable	0(0)	0(0)	20.0 (6)	53.3 (16)	26.7 (8)	100.0 (30)
The interest rates on the loan changes with economic changes and thus affects the business performance	0(0)	0(0)	16.7 (5)	60.0 (18)	23.3 (7)	100.0 (30)
The minimum amount I could borrow was sufficient for my business	0(0)	0(0)	6.7 (2)	53.3 (16)	40.0 (12)	100.0 (30
The minimum amount I could borrow was sufficient for my business	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
I understood the requirements of the type of business loan I took	0(0)	0(0)	20.0 (6)	26.7 (8)	53.3 (16)	100.0 (30)

The loan repayment methods are 0(0) 0(0) 13.3 60 26.7 100.0 simple and understandable (4) (18) (8) (30)

Usage

Information derive from the respondents' rating of usage as an indicator of financial inclusion is presented in Table 7.

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Table 7: Usage

Usage

	Strongly disagree %	Disagree%	Neutral%	Agree%	Strongly% agree	Total %
The procedure for acquiring the loan was simple	0 (0)	0 (0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
I can diversify my business and still maintain my customers and profit levels	0 (0)	0 (0)	20.0 (6)	53.3 (16)	26.7 (8)	100.0 (30)
I can do bank transactions through e.g. agency banking, e-banking or mobile money transfer and therefore I do not have to move to the bank	0 (0)	0 (0)	16.7 (5)	60.0 (18)	23.3 (7)	100.0 (30)
I use my bank account regularly	0 (0)	0 (0)	6.7 (2)	53.3 (16)	40.0 (12)	100.0 (30)
I make more savings to qualify for bigger loans	0 (0)	0 (0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)

Determinants of SME Performance among the SMEs

This was the third objective of the study. Information relating to the link between financial inclusion and SME performance in the business was equally sought for description and the results displayed in Table 8.

Table 8: Indicators of SME Performance

Statement

	Strongly disagree %	Disagree%	Neutral%	Agree%	Strongly% agree	Total %
The volume of goods traded over a period has increased	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
The number of employees have since increased	0(0)	0(0)	20.0 (6)	53.3 (16)	26.7 (8)	100.0 (30)
More customers are doing a repeat purchase	0(0)	0(0)	16.7 (5)	60.0 (18)	23.3 (7)	100.0 (30)
The profit margins have increased	0(0)	0(0)	6.7(2)	53.3 (16)	40.0 (12)	100.0 (30)
I regularly remit my loan payments in time	0(0)	0(0)	13.3 (4)	60 (18)	26.7 (8)	100.0 (30)
The efficiency in running the business has since improved	0(0)	0(0)	20.0 (6)	26.7 (8)	53.3 (16)	100.0 (30)
The quality of my products/services has since improved	0(0)	0(0)	13.3 (4)	60(18)	26.7 (8)	100.0 (30)
I have maintained my customers and acquired new ones after the loan	0 (0)	0 (0)	20.0 (6)	26.7 (8)	53.3 (16)	100.0 (30)
I am able to charge fair prices after the loan	0(0)	0(0)	13.3 (4)	60(18)	26.7 (8)	100.0 (30)
The loan is sufficient to smoothly meet the operations requirements	0(0)	0(0)	13.3 (4)	60(18)	26.7 (8)	100.0 (30)

Factors of technology that aid financial performance

Technology is a key aspect of performance of SMEs. Technology, which also acted as an intervening variable in the relationship between financial inclusion and SME performance was analyzed and the pertinent results presented in Table 9.

Table 9: Technology

Technology	Strongly disagree %	Disagree %	Neutral%	Agree%	Strongly % agree	Total %
I use technology such as M-pesa, Mshwari and Agency banking	0(0)	0(0)	10.0 (3)	63.3 (119)	26.7 (8)	100.0 (30)
Innovations and technology have played a crucial part in bettering my business and ensured ease access to funds.	0(0)	0(0)	16.7 (5)	30.0 (9)	53.3 (16)	100.0 (30)

The results in Table 9 above indicate that the respondents used of MPESA, Mshwari and Agency banking as technological innovations (63.3% agreed and 26.7% strongly agreed). Besides, they agreed that technological innovations had played a crucial part in improving their business 30.0% agreed and 53.3% strongly agreed.

Effects of Determinants of Financial Inclusion on the Performance Given Technology
This was the last objective. Path analysis through hierarchical multiple linear regression was used to test the objective.

Tests of Regression Assumptions

Regression analysis requires that the data meet certain conditions including lack of multicollinearity. The data was assessed for multicollinearity among the variables of access, quality, and usage (determinants of financial inclusion). Table 10 Shows the results.

Table 10: Assessment of Multicollinearity

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Access	Quality	Usage
1	1	3.916	1.000	.00	.00	.00	.00
	2	.057	8.284	.00	.84	.13	.01
	3	.023	13.060	.05	.11	.85	.10
	4	.004	31.304	.95	.05	.02	.90

a. Dependent Variable: Performanc e

The results in Table 10 show that each of the three variables was high on only one dimension (access = 0.00, .84, 11 and 0.05; Quality = 0.00, 0.13, 0.85, 0.02; Usage = 0.00, 0.01, 0.10 and 0.90). The results are indication of the absence of multicollinearity among the three variables. The data thus passed the test for multiple linear regression.

Moderating Effect of Technology on the relationship between Financial inclusion and SME Performance

Testing for moderating effect involved the use of Baron and Kenny's (1986) four-step method. It included computing two regression models using hierarchical multiple linear regression method. In the first step, the main effects of financial inclusion (independent variable) and technology (moderating variable) on SME performance were tested. The next step involved testing the interaction between the independent and moderating variables. There is assumed a moderation effect if the interaction between financial inclusion and technology is statistically significant. To create an interaction term, the product of financial inclusion and technology was calculated. The pertinent results are contained in Table 11. **Table 11: Regression Results of the Influence of Technology on the Relationship between Financial inclusion and SME Performance**

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.765[a]	.585	.567	.64143	.585	32.456	2	46	.000
2	.788[b]	.621	.596	.62000	.036	4.235	1	45	.045

Goodness of Fit

a. Predictors: (Constant), technology, financial inclusion

b. Predictors: (Constant), technology, scores of financial inclusion

Table 12: Overall Significance of the Influence of Technology on the Relationship between Financial Inclusion and SME Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.707	2	13.353	32.456	.000[b]

	Residual	18.926	46	.411			
	Total	45.633	48				
2	Regression	28.335	3	9.445	24.571	.000ᶜ	
	Residual	17.298	45	.384			
	Total	45.633	48				

a. Dependent Variable: Composite scores of SME performance

b. Predictors: (Constant), Composite scores of technology, Composite scores of financial inclusion

c. Predictors: (Constant), Composite scores of product of technology and financial inclusion, Performance

Table 13: Individual Significance of the Influence of Financial Inclusion, Technology and the Interaction Term on SME Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.021	.442		-.047	.963
	Composite scores of financial inclusion	.261	.100	.263	2.607	.012
	Composite scores of technology	.696	.111	.635	6.296	.001
2	(Constant)	-.094	.429		-.218	.828
	Composite scores of financial inclusion	.230	.098	.232	2.349	.023
	Composite scores of technology	.757	.111	.691	6.827	.001
	Product of composite scores of financial inclusion and technology	-.138	.067	.197	-2.058	.045

a. Dependent Variable: Composite scores of SME performance

The results in Table 11 reveal a correlation coefficient (R) = .765, coefficient of determination, R^2 = .585 and F = 32.456. Financial inclusion and technology explained 58.5% of the variance in performance. The R^2 value changed by 3.6 % from .585 to .621 when the multiplicative term (financial inclusion*technology). The result was statistically significant, at p = .045. There was statistical significance in the overall significance results as well (F =24.571, p =.000), explaining the fitness of the model.

The results in model 2, Table 13 shows a statistically significant relationship between financial inclusion and SME performance (β =.232, p = .023). The relationship between technology and SME performance is also statistically significant (β = .691, p = .001). The interactive term also

had a statistically significant relationship with SME performance. There was a statistically significant relationship between the interaction term and financial performance ($\beta = .197$, $p = .045$). The results indicate that technology moderates the relationship between financial inclusion and SME performance. The implication is that certain changes in technology positively affect the relationship between financial inclusion and SME performance.

Moderation path diagram is as shown in Figure 1.
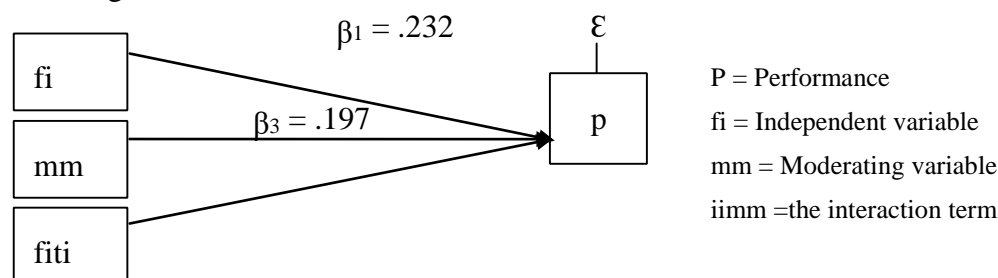
(a)Conceptual Diagram

b) Statistical Diagram

P = Performance

fi = Independent variable

mm = Moderating variable
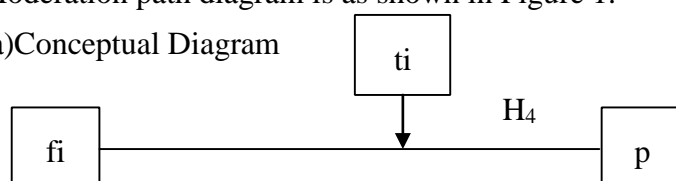
iimm =the interaction term

Figure 1: Moderation Path Diagram of the Effect of Technology

The equation below shows the estimation of the moderation effect of technology on the relationship between financial inclusion and SME performance.

$P_4 = \beta_{04} + \beta_{14}X_{fi} + \beta_{24}X_{ti} + \varepsilon_4$ P = -

$.094 + .232X_{fi} + .691X_{ti}.197 + \varepsilon_4$

Where:

P = Financial performance

Fi= Financial inclusion Ti=

Technology

ifti = Interaction term

The regression equation shows that a unit change in financial inclusion results in an increase of 0.232 in financial performance. A unit change in technology results in an increase of 0.691 in firm performance. Conversely, a unit change in the product of financial inclusion and technology leads to an increase of 0.197 in financial performance.

CONCLUSION

There is a high link between financial inclusion and performance of various SMEs within Nairobi City County.

RECOMMENDATIONS

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To policy makers and practitioners; there is need to seriously consider and continue to enable an environment where inclusion is possible. This will enhance usage, access and quality of finances which in turn will enable better performance of enterprises. This will definitely have an effect on social inclusion of citizens and better the economic performance. For further studies, scholars should include more inclusion variables and intervening variables apart from just technology as there are more to inclusion and the intervening variables than what the study has looked into. The study also recommends a further study on the factors affecting financial inclusion and their effects on financial performance of small enterprises in rural parts of the country.

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