

## USE OF TECHNOLOGY AND FINANCIAL LITERACY ON SME PRACTICES AND PERFORMANCE

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### ABSTRACT

SMEs tend to face uncommon barriers in achieving entrepreneurial success especially in emerging economies. This study, conducted a research on the impact of SME financial literacy and use of technology on practice of record keeping in relation to business performance, the ordinary least Regression analysis is used to analyse the influence of these variables on each other. The research conducted shows a significant relationship between the firm's use of technology to its record keeping practices and performance, and also a positive significant relationship with financial literacy. The study also found a significant relationship between financial literacy and firm book keeping practice; it suggests the dual role of financial literacy and use of technology for improving SMEs financial practices in Nigeria.

**Keywords:** Technology; Financial Literacy; SME; Financial technology

### 1.0 INTRODUCTION

Small and Medium Enterprises have been identified as crucial for the development of any economy (Nigeria inclusive), they serve as means for individual survival and sustenance (Aremu and Adeyemi 2011). The presence of few owners/managers and the small structure of SMEs form a large cost of getting useful information for a critical way of making of decisions (Olurotimi & Isibor, 2024b). Therefore, having a good utilisation of technology and financial literacy precision could immensely improve SMEs process of making decisions.

The advent of digital technology and information has revolutionised global business practices (Forester 1987; Olurotimi, Isibor, Ogbemor, & Lawal, 2024). Besides the issues surrounding ICT, the potential profit validates its adoption by firms and individuals. The use of technology brings unshakeable satisfaction and effectiveness mostly in relation to learning processes. The adoption of new technology creates opportunities for the acquisition and development of different skills and knowledge (Olurotimi, Isibor, Ogbemor, & Lawal, 2024). Hence changing the way business practices are carried, electronic business, electronic commerce and electronic

marketing, which have all shown a positive effect on all business globally regardless of their size. (Iansiti and Lakhani 2014)

The applicability and adoption of ICT is said to be only noteworthy if studied by meeting the conditions for a successful company (Tarute and Gatautis 2014). Financial literacy as a fundamental tool, which is inevitable for a person or company has an uncompromising link with the use of technology. Financial literacy and the use of technology at personal or firm-level tends to strengthen each other. According to (Kumar 2017) and (Olawale 2014) Suggested in their study that technology is a major component in financial literacy practices which has an effect on the firm's financial performance and practices. At the level of a firm the construct of financial literacy is shown to affect or determine a few fundamental firm practices, in a manner that has improved firm performance. (Wise 2014)

However, with low levels of advancement technology, Nigeria has displayed a deviant behaviour to the adoption of ICT, lagging behind other nations. The choice of technology is made to be the almost decision for SMEs in Nigeria, therefore, understanding the intricacies is imperative. General financial literacy level in Nigeria is relatively low (below 60% CBN 2011). Therefore studying the influence of both financial literacy and the utilisation technology, on SMEs performance and practices makes an intriguing subject.

The adoption of technology by businesses has proven to have a friendly impact on business practices and financially literate business managers, providing an opportunity for better SME financial management and improved SME performance. This study therefore carries out a collective research on the impact of SMEs use of technology with financial literacy on firm's practice and performance. The adopted model for this study is a model that establishes the impact of financial literacy and the use of technology in a firm's record-keeping practices considering their effect on SMEs performance in Nigeria.

## 2.0 HYPOTHESIS DEVELOPMENT

This study is based on an "evolutionary theory of economic change" by R R Nelson 2009. The theory postulated that organisation/firm in search of innovative solutions to improve its profit figures prosperously, firms grow at a cost to outperformed firms. Which changes the competitive business environment dynamically, firms are not able to grasp the finest technology fails to improve its performance optimally.

The theory stated clearly the need for firms to be innovative to boost performance. The theory is applied to emphasize importance of adopting the right technology as a basis for growing firm performances. The use of ICT has had an undeniable positive influence on business practices. Bharadwaj (2000) said that businesses with strong IT resources could tackle business planning issues more effectively technologically and make cost-effective decisions that encourages fast inter and intra-business communications and enable firm to predict market needs before their competitors. Investing in ICT is therefore vital for an organisation in improving communication, product design and development (Liang, You and Liu 2010). Previous studies have shown a positive influence of ICT on firm performance.

Financial Literacy at any level either individual or firm is important for good financial management. Considering the small nature of SMEs, managers can easily communicate their

financial abilities and knowledge into firm practices, leading to optimal use of firm resources. An SME manager who is financially literate, aware, and understands the sources of financing has the ability to implement good business budgeting, planning and controlling, also setting up an efficient procedure of gathering, processing, storing and disbursement of financial information.

Based on the above the following hypotheses are formed:

**H1:** The use of technology has a positive impact on SMEs practice of bookkeeping in Nigeria.

**H2:** The use of technology positively influence SMEs performance in Nigeria

**H3:** Financial literacy has a positive impact on SMEs bookkeeping practice in Nigeria

**H4:** Financial literacy has a significant impact on SMEs performance in Nigeria

**H5:** The practice of bookkeeping has positive influences on SMEs performance in Nigeria

## 3.0 LITERATURE REVIEW

### 3.1 Financial literacy

There is no generally accepted definition for financial literacy despite several attempts made to define the concept. Financial literacy according the study being carried out has been defined as the ability of an individual to implement skills and knowledge which effectively manages financial resources. For an SME financial literacy emphasises the capacity of the owner/manager to use their financial skills and knowledge in performing business operations. The South African banking community described financial literate SME managers as managers who have the required level of interpersonal skills, business management skills and entrepreneurial capabilities. In order to understand the functional financial management systems a certain level of understanding in SMEs life cycle financing and other financial requirements are needed. Understanding of regulatory, legal and tax issues in relation to financial matters and understand the array of legal resources it can deploy for necessity in case of financial distress situations or bankruptcy (Messy and Monticone 2012).

### 3.2 Use of Technology

Berisha-Namani (2009), define IT as the technology used to create, distribute, manipulate and hoard information. Parasuraman (2000), talks about four dimensions of the use of technology, which are innovative, optimism, insecurity and discomfort. The innovativeness talks about the length to which persons prefer to try new technology to proffer the best solution for solving a particular problem. Optimism refers to apposite view to perception and adoption of the profit to be gained from technology improving work efficiency and performance. The insecurity perspective presents a lack of trust for tech-driven transactions and doubt of its functionality. And the discomfort dimension depicts a sense of lack of mastery and confidence in using the new technology. The first two dimensions mentioned represent contributors to the process of adopting new technology while the last two represent inhibitors of technological adoption. Tsikritsis (2004), suggested that innovators and optimists are always interested in acquiring new technology. (Pierrakis and Collins 2013) described technological advances as the capacity to create a free online connection structure, secure online money transfer, correct credit scored used by investors and free media tools for marketing products, which in turn engages a group of dispersed people.

### 3.3 Definition of SME

This study defines SMEs by the Nigerian context the environment from where this study is undertaken. A microenterprise according to the national policy on micro, small and medium enterprises: is a firm or business with less than ten employees, and also with assets worth less than five million excluding land and buildings. A small enterprises, a firm or business with between ten and forty-nine employees and assets worth over five million but less than fifty million excluding land and buildings, while medium scale enterprises are defined as firms or business with over fifty employees and assets worth more than fifty million but less than five hundred million excluding land and buildings (MSME National Policy).

### 3.4 Financial Literacy and Use of Technology

The existence and the infusion of technology into daily activities by individuals and business has become a pertinent matter encouraged by enlarged presences and coverage of wireless cell phones, internet, computer and many other electronic gadgets. In established nations of the world with strong economies, where the use of technology is prevalent, technology is become critical to business and individual success. The connection of financial products and technology provides a great tie on improving financial literacy. For example e-banking which has been newly proliferated have better access to financial products (Mabula & Ping 2018). These tech based products may include computer banking, direct deposits stored debit and value cards (Servon and Kaestner 2008). (Olawale 2014) said there is low adoption of technology at firm level in a study on financial literacy and micro entrepreneurs in South Africa. The study discovered that most firms had no e-mail address and inaccessible through the internet at their workstation, zero of their correspondents have a webpage. Firms and individuals who are financially excluded suffer from low or no financial literacy and elementary education leading to limited access to financial products/services. Therefore, they focus much on the use of the informal financial system which are much easier. This constraint through ICT can be leapfrogged, which provides a more realistic alternative to reduce cost of transaction at a great extent and create friendly platforms comfortable for users (Bansal 2014)

### 3.5 Use of Technology and SME practices

Generally, technology is utilised by SMEs at a very low percentage in emerging economies. (Rahman, Yaacob, and Radzi, 2016). Nonetheless, literature offers strong evidence that proves utilisation of technology as an important element in success of SMEs (Oyekuet al. 2014). Investigating the scale of many SMEs they are easily affected by cash flow issues, and therefore have limited funds to assigned to managers for quality management of financial performance and, since they do not participate in economies of scale and market power enjoyed by large businesses (Fariseli et al. 1999; Premkumar and Roberts 1999; Olurotimi & Isibor, 2024a). The usage of ICT by SMEs can promote the development of core competencies for managing, information-intensive resources, reduce the cost of operation and develop the ability to gather information locally and globally leading to quick flow of information (Berisha-Namani 2009). For instance, crowdfunding via web-based platforms can increase SMEs access to finance and potentially repair specific market faculties, some of which are; sufficient flexible financing for start-ups and marketing tools to enlarge entrepreneurs market reach. (Eniola & Entebang 2015).

### 3.6 SME use of Technology and Book Keeping

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Financial records are business info that contains details of transactions between or among business entities; it could be kept for future and present references in both paper and electronic format (Oyeku et al. 2014). Electronic records refer to records stored in digital form processed and transmitted using a computing system. The practice of book keeping electronically by small and medium enterprises brings new challenges for the SMEs to curtail. Challenges such as digital hacks causes a break down in digital security leading to alteration of stored information.

## 4.0 METHODOLOGY

In other to gather data for the purpose of this study the World Bank Enterprise Survey is used and also in an attempt to show the variables that captured financial literacy, use of technology and how it affect SME practices and performance. The World Bank survey looks at the period between 2007-2014. According to the World Bank in 2012, the survey covers many factors that play important roles in shaping business environment in a country (Nigeria).

The population is two thousand six hundred and seventy-six thousand (2676) respondents who are top managers in the SME manufacturing firms from three thousand firms and is in line with Kerjice and Morgan (1970) as cited in (Uwuigbe, Olusanmi and Iyoha 2015) who are of the opinion that 5% of a population is the minimum sample size expedient to make inferences on the entire population. However, the use of technology is proxy by the whether a company has a functioning website, while financial literacy proxy with the highest level of education for manger and performance of SME represented by percentage sales of SME. The study utilized the least square regression analysis to estimate its data.

**Table 1: Summary of Variables**

Variables	Items (Proxies)	Measurement
Dependent	SME performance	% National sales of the company
Independent	Use of technology	Does establishment have a functioning website
	Financial Literacy	Highest level of education obtained by top level manager
Control variables		Do you use technology licensed from a foreign owned company If HQ financial statement is independent of the rest of the establishment

## Empirical Model

In this work the model shown below was adapted from the work of (Mabula & Ping 2018). The equation is shown below

Where;

SMEpef = Small and Medium enterprise performance

UTECH = Use of technology

FL = Financial literacy

= Coefficients of parameter

= Error term

i = Sampled firms

t = time trend

### 4.1 Results and Discussions

Using the ordinary least square to analyse acquired data from Table 2, we observed that a unit increase in use of technology leads to about 2.14 unit increase in performance of SME. With the probability value of 0.047, it could be inferred that use of technology is statistically significant to the model at 5 percent level. If level of financial literacy increases by 1%, performance of SME will increase by 1.38, and it is also significant to the model at 5 percent level. Thus, the advancement in the use of technology and improved level of financial literacy has the potential of increasing performance of SME. The result shows a direct relationship between use of technology, financial literacy and performance of a business entity which is the expected.

**Table 2: use of technology and financial literacy on SME practices and performance**

Source	SS	df	MS			
Model	130617.757	4	32654.4392	Number of obs =	1133	
Residual	1935730.44	1128	1716.07309	F( 4, 1128) =	19.03	
Total	2066348.2	1132	1825.39594	Prob > F =	0.0000	
				R-squared =	0.0632	
				Adj R-squared =	0.0599	
				Root MSE =	41.426	

  

d3a	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
c22b	2.145082	1.079645	1.99	0.047	.0267427	4.263421
ngb7	1.38163	.4035055	3.42	0.001	.5899238	2.173336
e6	2.052154	.6220345	3.30	0.001	.831679	3.272628
all	-1.948672	.3035822	-6.42	0.000	-2.544321	-1.353023
_cons	49.50963	3.108383	15.93	0.000	43.41077	55.60849

H1 shows a positive relationship between the firm’s use of technology and practice of firm book keeping in developing countries. The OLS regression coefficient was significant at (p< 0.05). The result suggested that firms that engage in high use of technological resources tend to have a more improved level of record keeping practices



H2 shows a positive relationship between the firm's use of technology and firm's performance. According to the results the OLS regression coefficient on this relationship was significant at ( $p < 0.05$ ). This suggests that an increase in the level of a firm's technological resources will also have a positive impact on its performance as the firm is able to carry out more activities be it production or rendering services

H3 shows a positive relationship between financial literacy and the firm's record keeping practices. The OLS regression shows manager's level of education coefficient in this is significant at ( $p < 0.05$ ). This suggests a direct relationship between financial literacy and the practice of book keeping. Therefore, this conforms to speculation on factors like the manager's education and financial information has a relationship with financial literacy and firm book keeping practices

H4 shows a positive relationship between financial literacy and firm performance, the OLS results confirms that a manger's level of education is significant at ( $p < 0.05$ ), the analysis also shows that an increase in the level of a manager's financial literacy also increases the firm's performance. This suggests that the level of financial literacy of the SME managers in developing countries plays an important role on firm's growth and survival.

H5 shows a positive relationship between book keeping practices and firm performance. The OLS regression shows manager's level of education coefficient is significant at ( $p < 0.05$ ). The result indicates that an improvement on better record keeping practices tends to boost firm's performance over time. This emphasizes on the importance of record keeping for firm sustainability. This record keeping helps a firm in planning for the future, appraisal of its performance, investments, marketing and pricing decisions.

### **Table 3: Robustness Analysis**

To validate the result in the main regression model, we further test our hypothesis by using fixed effect model. The result in table 3 confirms the robustness of the main test as the desired variables retained their results.

Source	SS	df	MS	Number of obs = 1133		
Model	654757.719	22	29761.7145	F( 22, 1110) =	23.40	
Residual	1411590.48	1110	1271.70314	Prob > F =	0.0000	
Total	2066348.2	1132	1825.39594	R-squared =	0.3169	
				Adj R-squared =	0.3033	
				Root MSE =	35.661	

  

d3a	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ngb7	.3305833	.3589226	0.92	0.357	-.37366	1.034827
c22b	2.539492	.9484052	2.68	0.008	.6786225	4.400361
e6	1.81265	.5442787	3.33	0.001	.7447188	2.880581
all	-.8654932	.2993221	-2.89	0.004	-1.452794	-.2781922
a2						
2	-13.79763	6.289887	-2.19	0.028	-26.13904	-1.456222
3	-30.42689	6.013101	-5.06	0.000	-42.22521	-18.62856
4	4.551275	6.705261	0.68	0.497	-8.605141	17.70769
5	-11.19698	6.856307	-1.63	0.103	-24.64977	2.2558
6	.2773323	6.975384	0.04	0.968	-13.40909	13.96376
7	-15.53289	6.108374	-2.54	0.011	-27.51815	-3.547631
8	9.73188	5.389821	1.81	0.071	-.8435074	20.30727
9	-4.255584	6.558219	-0.65	0.517	-17.12349	8.61232
10	-15.86833	7.310064	-2.17	0.030	-30.21143	-1.525223
11	-39.28656	6.68569	-5.88	0.000	-52.40458	-26.16855
12	-42.59693	6.636602	-6.42	0.000	-55.61863	-29.57523
13	5.124237	6.41019	0.80	0.424	-7.453218	17.70169
14	4.925924	6.564812	0.75	0.453	-7.954916	17.80676
15	-21.37049	9.198061	-2.32	0.020	-39.41803	-3.322942
16	8.465166	6.433795	1.32	0.189	-4.158606	21.08894
17	-74.63753	6.441302	-11.59	0.000	-87.27603	-61.99903
18	-9.36113	11.08917	-0.84	0.399	-31.11923	12.39697
19	-28.75824	6.816429	-4.22	0.000	-42.13278	-15.3837
cons	71.69613	5.440608	13.18	0.000	61.0211	82.37117

## 5.0 CONCLUSION AND RECOMMENDATIONS

Considering the overall predicament of financial systems and ICT in emerging economies, small and medium enterprises face enormous problems in form of availability and technical know-how of technology. Many SMEs find it cost worthy to keep an eye on the latest trends in ICT with different and frequent updates on many technology, in tackling this issues it is sacrosanct to understand the impact of financial literacy and ICT relatively on firm practices as it has been exemplifies in this study.

The right mix of technology, and the financial knowledge and skill of a financially literate SME manager/owner brings in a range of operational backups, which if well used will enhance business practices and ultimately bring about sustained and improved performance.



Limited by the nature of the study and terms of data and analytical approach, the study realized that there are unharnessed profits of integrating ICT and corporate financial management in firms in Nigeria.

## 6.0 RECOMMENDATION FOR FURTHER STUDY

The Nigerian economy is yet to tap into its applicability of ICT implementation and the result on awareness, usage and access to financial products both at firm and individual level. This study suggests further studies to be carried out using a more rigorous scientific research and more variables of firm practices.

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