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Influence of Information, Communication and Technology on Financial Performance of Small and Medium Sized Businesses in Nyeri County Kenya

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Abstract: Economic Survey 2009 statistics indicate a tremendous growth of SMEs in Kenya over the last ten years; constituting about 96 per cent of all business enterprises in the country; yet 90% of the business start-ups do not operate beyond their third anniversary. The main objective of this study therefore was to investigate the influence of information; communication and technology on financial performance of small and medium scale enterprises in Nyeri County Kenya. The study sampled 10% of the population which constituted 1020 business enterprises. The research utilized both quantitative and qualitative approaches; adapting descriptive research design. The study used both primary and secondary data. The study found out that there is inefficient use and lack of full exploitation of the capabilities of the systems which affects their productivity and growth since it limits their competitiveness. The study findings indicated that there is a significant relationship between internal control systems adopted by an SME and financial performance of the SME which implies that internal control activities, ICT, control environment, continuous monitoring of internal control activities and risk assessment influence financial performance of SMEs to different extents as suggested by the model. Based on the findings, the study recommends that SMEs and other business organizations should put in place sound systems of internal control activities which should include frequent and adequate execution of internal control activities such as adoption and development of efficient ICT solutions. The optimization of these variables will culminate into enhanced financial performance of SMEs as well as their survival and growth.

Keywords: ICT, Financial Performance, SMEs, Profitability, Liquidity

I. INTRODUCTION

The number of small and medium enterprises has been increasing rapidly for the last two decades with the majority based in the rural areas. According to the national and small enterprise baseline survey (GOK, 2007); about 1.3 million small enterprises were in Kenya employing about 2.4 million people. Their share to GDP was estimated at 18.8% second to agriculture having increased from 13.8 in 1993. The Economic strategy for wealth and employment creation 2003 – 2007 (GOK, 2007), indicates that about 25% of all households engage in some form of small business activity with the majority depending on their business for all household income. In 2012 the SMEs segment contributed over 80% of the country's employment with majority of new jobs being created in that sector (430,000 out of 503,000 new jobs created in 2011) and contributes about 20% to the country GDP (GOK, 2012).

According to the Kenya's Economic Survey 2013 released by the Ministry of Devolution and Planning, the informal sector, which constitutes 89.7% of total employment, created an additional 591,400 jobs in 2012. According to (ROK, 2012), SMEs contributed to seventy percent of the Gross Domestic Product in 2012 in Kenya. In Europe Small and Medium Sized Enterprises (SMEs) are currently the largest employment creators contributing significantly to the country's Gross Domestic Product (GDP). SMEs constitute currently the major part of economic activities in Sweden. Nowadays, they represent about 99% of all types of enterprises in Sweden and provide high job opportunities to its labour force (Nutek, 2004, p. 15).

Despite being recognized as the backbone of the country's Kenya's economy, many Kenyan SMEs face significant challenges, key among then being access to finance. Studies indicate that one out of three startups do not survive past the first three years after being established. Various studies have been conducted on the reasons key to growth and sustainability of small and medium enterprises. Some of the reasons identified as to why small and medium enterprises growth is affected include; lack of access to sound financing, challenges in embracing technology, challenges in accessing markets, lack of training of the entrepreneurs and failure to adopt or ineffective Internal Control Systems (ICs).

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines internal control as a process implemented by an entity's board of directors, management and other personnel to provide reasonable assurance regarding the achievement of objectives in effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations. COSO is dedicated to providing guidance on organizational governance, business ethics, internal control, enterprise risk management, fraud and financial reporting. COSO established a common internal control model that is used by large and small reporting entities.

A study carried out by Ong'ang'a D.O *et al* 2014, showed that there is a positive correlation between return on investments, which is a measure of performance, and internal control systems. This implies that where we have high return on investment, implying high performance, there are high chances of growth. "The likelihood of achievement is affected by limitations inherent in all systems of internal control" (Hayes *et al.*, 2005). Organizations establish systems of internal control to help them achieve performance and organizational goals, prevent loss of resources, enable production of reliable reports and ensure compliance with laws and regulations. An internal control system comprises the whole network of systems established in an organization to provide reasonable assurance that organizational objectives will be achieved. Internal control is considered as an emerging issue in SMEs. Studies show that 90% of the business start-ups do not operate beyond the third anniversary due to lack of sound internal control systems (Katuntu, 2005). Therefore, the study sought to contribute to the existing literature by empirically investigating the role of internal control systems on financial performance and its importance in small and medium-sized enterprises.

II. Statement of the Research Problem

Kenya has about 1.6 million registered small and medium sized enterprises constituting about 96 per cent of all business enterprises in the country (economic survey, 2009). SMEs represent the largest sector in the economy employing up to 75% Kenya's workforce and contributing up to 18.4% of the country's Gross Domestic Product (GDP) (Economic Survey, 2009). SMEs have expressed an impressive need to grow and introduced various expansion mechanisms.

In Kenya, the SMEs sector is considered as one of the major contributors to the economy by providing income and employment to a significant proportion of the population (Ngugi & Bwisa, 2013). The Kenya economic survey report (GOK, 2009) shows that the SMEs sector contributed 79.8% of new jobs created in year in Kenya 2009. in 2012 the SMEs segment contributed over 80% of the countries employment with majority of new jobs being created in that sector (430,000 out of 503,000 new jobs created in 2011) and contributes about 70% to the country's GDP (GOK, 2012). Despite the SMEs importance in the Kenyan economy, Sessional paper no. 2 of 2005 indicates that three out of five businesses fail within the first three years of operation (ROK, 2005).

The failure of SMEs lead to loss of jobs and consequently increased insecurity, low liquidity in the economy, and decline in economic growth (OECD, 2009). The SMEs sector plays a key role in the economic development and contributes to a large extent to employment and poverty reduction in the country. According to the Sector Plan for Manufacturing 2008-2012 of the Kenya Vision 2030, the manufacturing sector whose major component is value adding SMEs among the key productive sectors identified for economic growth and development because of its immense potential for wealth and employment creation as well as poverty alleviation (ROK, 2007). According to Sessional Paper No.2 of 2005 on Development of Micro and Small Enterprises(SMEs) cut across all sectors of the country's economy and provide one of the most prolific sources of employment, not to mention the breeding ground for entrepreneurs in medium and large industries, which are critical for industrialization.

A study carried out by Aikins in the United States (2008) on examination of government internal audits ' role in improving financial performance established that in general, local government auditors performed more audits in operational areas that deal with fiscal receipts and outlays. In addition, auditors' work significantly influenced local government financial performance both directly and indirectly through improvements in internal controls and efficiency of operations. A study carried out in Nigeria by Owizy (2008) Assessment of Effectiveness of Internal Control in Government Ministries: A Case study of Benue State Ministry of Finance. The study found out that Benue State ministry of finance do prepare annual budget promptly and also have adequate expenditure tracking to prevent financial recklessness.

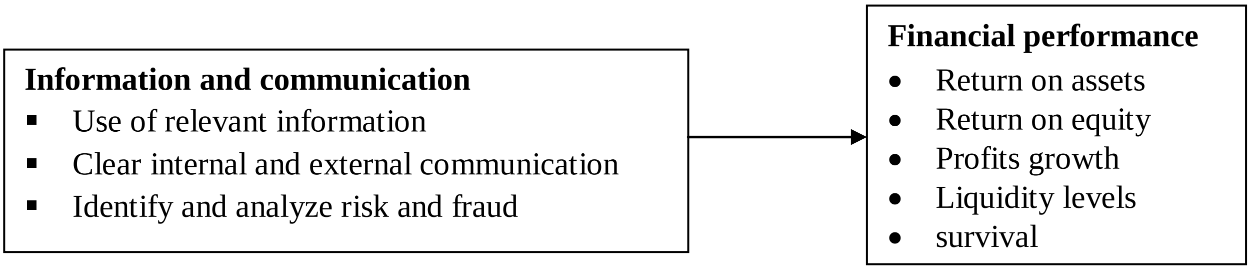
A study by Ochoge in Uganda (2011) on internal controls and organizational performance: a case of Medipoint industries limited identified that the internal controls used in Medipoint Industries Limited were ineffective and unsatisfactory, the level of organizational performance was found to be inadequate and a significant positive relationship between internal controls and organizational performance was established to exist. According to "a review of SME's strategic planning for growth and sustainability of in Kenya" by Peter K. Gatukui et al 2014, most SME owners across the world consider internal control systems to be relevant only to large companies and not to their very own business situations. A survey by KPMG (2013), showed that internal controls are a critical ingredient for the growth of SME's in Kenya

Studies conducted by Simiyu (2011) on effectiveness of internal control system in parastatals in Kenya, Mugwe (2010) on Internal control practices on performance of manufacturing companies in Kenya, Webola (2009) on the relationship of internal control and resource management of NGO's in Tanzania clearly indicated that organizations face quiet a number of challenges during internal controls in performance like; struggles with liquidity problems, financial reports are not made timely, accountability for the financial resources is still wanting, frauds and misuse of institutional resources. However, the studies that were carried out did not focus on the effectiveness of internal controls on performance of SMEs in Nyeri County Governments. In addition, the findings of the study that were carried out were too general and did not focus specifically the relationship between internal control systems and financial performance among the small and medium sized business enterprises in Nyeri County. Previous studies that have been carried out focused in different sectors and carried out in different environments. It was for this reason that this study sought to investigate the effectiveness of internal controls on performance of SMEs in County Governments of Nyeri Kenya.

Purpose of the Study

The study sought to establish the influence of information, communication and technology on financial performance of SMEs in Nyeri County in Kenya

Conceptual Framework



Independent Variable **Dependent Variable**

Schumpeterian Theory of Innovation

Schumpeter (1928) pointed to the discontinuous and disruptive nature of technological change in capitalism that brings the inseparable combination of short-term instability and long-term growth. Schumpeter argued that entrepreneurs created the opportunity for new profits with their innovations, which involves embracing new technologies. He set up a production function where the entrepreneur is seen as making new combinations of already existing materials and forces, in terms of innovation; such as the introduction of a new good method of production, opening of a new market, conquest of a new source of production input, and a new organization of an industry (Casson et al., 2002).

For Schumpeter, the entrepreneur is motivated by the desire for power and independence, the will to succeed, and the satisfaction of getting things done. He conceptualized 'creative destruction' as a process of transformation that accompanies innovation where there is an incessant destruction of old ways of doing things substituted by creative new ways, which lead to constant innovation.

Information, Communication and Technology

A study by Ngugi (2012) indicated that most SMEs face low productivity due to use of inefficient technology. This has affected SMEs growth to a very great extent.This study also indicated that SMEs are mainly users of technology, not adaptors of technology. This implies that, although SMEs do not invent new technologies, they need to adopt the most recent and suitable technology available and suitable to their operations.

John J. Morris (2011) asserts that software vendors that market enterprise resource planning (ERP) systems have taken advantage of this new focus on internal controls by emphasizing that a key feature of ERP systems is the use of "built-in" controls that mirror a firm's infrastructure. SMEs tend to have low productivity and they are weak in terms of competition which is the result of using inefficient technology, not maximizing machinery utility and not improving in technology due to the limitation of funding and most SMEs are mainly users of technology, not adaptors of technology.

According to Ogneva, M., K. R.Subramanian & K.Raghunandan. (2007). Information and communication refer to the systems put in place by an organization to identify, capture, process and report relevant and reliable information in a timely manner so that people can carry out their responsibilities effectively. In addition, these systems deal with both internally and externally generated/required data and flows both vertically and horizontally in the organization.

Ogneva et al., (2007) looks at information and communication component as the identification, capture, and communication of pertinent information in an appropriate form and timeframe to accomplish the financial reporting objectives. Open channels of communication are necessary to allow information to flow throughout the entity and into the financial statements and therefore management should discuss the identification, capture, and flow of financial information in its report (Schroth & Shah, 2000). An agency's control structure must provide for the identification, capture and exchange of information both within the agency and with external parties. For example, management relies on the information system, including the accounting system, for reporting on agency or program activities to the Legislature, oversight agencies, and federal grantors. Accurate information communicated in a timely manner is, therefore, the focus of the component of internal control (Woolf, 2010).Review of the impact of information technology in internal control assisted this study in achieving its second objective which was to establish the influence of information technology as an element of Internal Controls on the performance of SMEs

III. Research Methodology

Research Design

The study adopted a descriptive research design. This design is considered appropriate since it facilitates gathering of reliable and accurate data that clearly helped to investigate the effect of information, communication and technology on financial performance of small and medium scale business enterprises in Nyeri County; Kenya. The study targeted 1020 small and medium sized enterprises where 10% of them were sampled to participate in the study.

Instruments of the Study

Primary data was collected using semi structured questionnaires constructed with Likert scale items. Questionnaires were preferred because they are effective data collection instruments that allow respondents to give much of their opinions in regard to the research problem. Secondary data was also gathered from past published scholarly articles explaining theoretical and empirical information on diversity management issues. The questionnaires were pilot tested and checked for validity and reliability.

Findings of the study

Response Rate

Out of the 102 questionnaires that were administered, 90 of them were received back. This accounted for 88.23% percent response rate. According to Bell and Bryman (2007), a response rate of 60% is adequate to permit data analysis. The 88.23% response rate was achieved due to self-distribution of the questionnaires and adequate time given to respondents.

Financial Performance and Growth of the SMEs

The study sought to establish the financial performance and growth of SMEs. The respondents were asked to rate the performance of their respective SMEs based on trends of growth of value of assets, profitability, number of employees and the reduction in the frauds and irregularities. The respondents were required to indicate the level to which they agree or disagree that there has been a positive growth in the indicators of financial performance and growth in their SME. Table 4.5 summarizes the responses obtained.

Table 1: Financial Performance and Growth of SMEs

INDICATOR OF FINANCIAL PERFORMANCE AND GROWTH	EXTENT OF AGREEMENT						
	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Standard Deviation
Value of Assets	13	22	34	12	9	3.2	1.7
Profitability Levels	17	25	29	11	8	2.9	1.9
Number of Employees	19	28	24	12	7	2.8	1.5
Reduction in the number of frauds and irregularities	8	14	39	19	10	3.3	2.1

Descriptive statistics frequencies, mean and standard deviation were used to summarize the study findings on the financial performance and growth of SMEs as shown on Table 4.5. From the findings, majority of the respondents 35(38.8%) respondents agreed that the value of assetts has increase (Mean=3.2, Standard deviation=1.7).The rest of the respondents were either neutral or were in disagreement with the statement. This implies that in majority of the SMEs, there has been an increase in the value of assets. 42 respondents (46.7%) agreed that there has been growth in the profitability of the SMEs (mean=2.9, standard deviation=1.9).The remaining respondents were either neutral or in disagreement with the statement. This implies that in majority of the SMEs, there has been growth in profitability. 47 respondents (52.2%) agreed to a large extent that SMEs have grown in terms of employee numbers (mean=1.7, standard deviation=1.4). Only 22% of the respondents (24.4%) agreed to a large extent with the statement that there has been a reduction in the number of frauds and irregularities in their SMEs with a majority of them being either neutral in disagreement with the statement (mean=1.9, standard deviation=1.7). The findings of the study therefore indicate that to a large extent, financial performance and growth among the SMEs has been on a positive trend, however, this has not been the case with the reduction of the number of frauds and irregularities. The findings of the study point to the fact that the number of frauds and irregularities have been on increase. This calls for more prudent strategies to remedy the situation through more proactive internal control mechanisms.

Information, Communication and Technology and Financial Performance of SMEs

The second objective of the study sought to examine the importance of information, communication and technology on financial performance of SMEs. This was achieved by evaluating the extent to which the respondents rate the various indicators of importance of information, technology and technology to the SMEs. The results were as presented in Table 4.6.

Table 2: *Importance of Information, Communication and Technology to SMEs*

INDICATOR	YES		NO		NOT SURE	
	f	%	f	%	f	%
Discussion of internal audit reports	48	53.3	28	31.1	14	15.7
Use of active website	44	48.9	32	38.9	11	12.2
Online submission of internal audit reports	39	43.3	31	34.4	20	22.2
Use of e-procurement	34	37.8	29	32.2	27	30.0
Business automation	56	62.2	21	23.3	13	14.4

Percentages were used to summarize the study findings as shown on Table 4.6. From the findings, 48(53.3%) respondents said that management discusses internal audit reports frequently; 28(31.1) saidmanagement does not conduct discussions on internal audit reports frequently and only 14(15.7%) of the respondents were not sure. This implies that in majority of the SMEs the managements discuss internal audit reports frequently. 44 respondents (48.9%) said that their SMEs has an active website but he websites are not frequently updated; 32(38.9%) said that their SMEs do not have an active website and 11(12.2%) were not sure whether the SMEs have an active website and whether the website if any is frequently updated. This implies that majority of the SMEs have websites in place but the websites are not frequently updated. The findings however indicate that a large number of respondents were unaware or indifferent about the presence or status of the SME's website. 39 respondents (43.3%) said that the employee submit internal audit reports online; 31(34.4%) said that the employees do not submit the audit reports online and 20(22.2%) were not sure about whether the employees submit the internal audit reports online. This implies that the majority of the SMEs have put in place and are using online systems of submission of internal audit reports, however, a large number of respondents were not aware of existence and level of usage of the online systems. 34 respondents (37.8%) said that their SMEs uses e-procurement system to procure goods and services; 29(32.2%) said that their SMEs do not use e-procurement and 27(30.0%) were not sure about the use of e-procurement in their SMEs. It was also found out that some SMEs use mobile phones to place orders and receiving payments. This implies that in majority of the SMEs, e-procurement is used but the number of respondents who were unsure about the use of e-procurement in their SMEs is big. Finally, majority of the respondents, 56(62.2) said that their business is not automated; 21(23.3%) said that the business is automated and 13(14.4%) said that they were not sure about the automation of the operations in their SMEs. Further, the study sought to establish the opinion of the respondents on the level of adoption and utilization of information, communication and technology in the operations of their SMEs. Figure 4.2 displays a summary of the responses obtained.

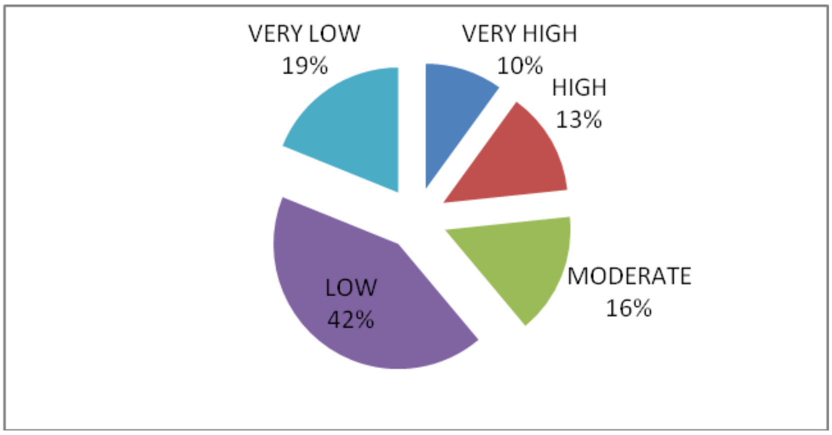


Figure 1: *Level of Adoption and utilization of ICT systems*

Information presented in Figure 4.2 indicates that in majority of the SMEs, the level of adoption and utilization of ICT systems is low (42%); very low(19%); moderate(16%); high(13%) and very high(10%). Cumulatively therefore, the level of utilization and adoption of ICT systems in the SMEs is low (61%). This implies that although some of SMEs have adopted and utilize ICT systems, majority of the SMEs neither adopt nor utilize ICT systems. The low utilization of ICT systems adversely affects the financial performance of the SMEs as well as their growth potential.

In summary, the findings of the study indicate that though a sizable number of SMEs have invested in vibrant information, communication and technology systems, the level of usage as indicated by low awareness among the employees about the existence of such systems is low. This translates into inefficient use and lack of full exploitation of the capabilities of the systems. The inefficient use and poor adoption of the technological systems into the operations of the SMEs affects their productivity and growth since it limits their competitiveness as well as increasing their cost and convenience in carrying out their operations. Some of the innovative ways through which the SMEs carry out communication is through websites, online systems of information sharing and procurement as well as discussions on internal audit reports among the managers.

The findings of the study strengthens those of similar studies such as that by Ngugi (2012) which reported that SMEs face low productivity and poor growth due to use of inefficient technology and failure to adopt technology. The findings of the study are also in line with those of John J. Morris (2011) who asserts that SMEs tend to have low productivity and are weak in terms of competition which is as a result of using inefficient technology, not maximizing machinery utility and not improving in technology. In line with the findings of the study by Ogneva et al., (2007), organizations require

ICT systems to allow information to flow throughout the entity and into the financial statements and therefore management should discuss the identification, capture, and flow of financial information in its report. Due to the sub optimal utilization of the ICT systems in the SMEs, the accrued benefits for efficient use of the systems are generally lacking. This increases the cost of operations, reduces the efficiency and effectiveness of internal control systems and consequently impacts negatively on the financial performance, growth and competitiveness of the SMEs in the business industry.

Conclusions and Recommendations

The study concluded that ICT influence the financial performance of SMEs in Nyeri county Kenya. Therefore, SMEs and other business organizations should put in place sound systems of internal control activities which should include frequent and adequate execution of internal control activities such as continuous monitoring of activities, optimal communication flows, adoption, development of efficient ICT solutions, prudent risk management strategies and assessment and control of the internal control environments. The optimization of these variables will culminate into enhanced financial performance of SMEs as well as their survival and growth.

REFERENCES

[1.] Aikins, S. K. (2008). *An Examination of government Internal Audits' Role in Improving Financial Performance*. Published MBA Thesis. University of South Florida, US

[2.] Bell, E., & Bryman, A. (2007). The ethics of management research: an exploratory content analysis. *British Journal of Management*, *18*(1), 63-77.

[3.] Casson, A., Chilley, M., Topping, F., Evans, M. Souter, A. & Lindsey, K. (2002). *The POLARIS gene of Arabidopsis encodes a predicted peptide required for correct root growth and leaf vascular patterning*.

[4.] Government of Kenya Reports (2013). *Performance of County Governments in Keny*a,

[5.] John J. (2011). "The Impact of Enterprise Resource Planning (ERP) Systems on the Effectiveness of Internal Controls over Financial Reporting" *Journal of Information Systems, 25*(1), 129-15.

[6.] KPMG. (2013). The KPMG Survey of Corporate Responsibility Reporting.

[7.] Mugwe, H. (2010). *Internal control Practices on Performance of Manufacturing Companies*

[8.] Ngugi, K. (2012). Challenges hindering sustainability of small and medium family *Unpublished PhD thesis JomoKenyatta University of Agriculture and Technology*.

[9.] Ngugi, J. & Bwisa, H. (2013). *Factors influencing growth of group owned small and medium enterprises: a case of one village one product enterprises*. International Journal of Education and Research Vol. 1 No. 8

[10.] Ochoge, J. (2011). *On Internal Controls and Organizational Performance: A case of medipoint Industries. Published MBA Thesis.*Makerere University, Uganda

[11.] Ogneva, M., Subramanyam, R. & Raghunandan, K. (2007). *Internal Control Weakness and Cost of Equity Evidence from SOX Section 404 Disclosures. The Accounting Review.*

[12.] Owizy, S. O. (2008). Assessment of Effectiveness of Internal Control in Government Ministries a Case study of Benue State Ministry of Finance

[13.] Republic of Kenya (2005), *Economic Survey*, Nairobi Kenya: Government Printers

[14.] Republic of Kenya (2012) *Economic Survey* Nairobi Kenya: Government Printers.

[15.] Schroth, H. A., & Shah, P. P. (2000). Procedures: Do we really want to know them? An examination of the effects of procedural justice on self-esteem.*Journal of AppliedPsychology.*

[16.] Schumpeter, F. (1928). Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle, Transaction Publishers Harvard

[17.] Simiyu, J. (2011). '*Effectiveness of Internal Control System in Parastatals in Kenya*'

[18.] Webola, A. (2009). on the relationship of internal control and resource management of NGO's in Tanzania.MBA Thesis. Tanzania University of Open Learning

[19.] Woolf, E. (2010). *Auditing Today* (3rd Ed.). Prentice Hall International (UK) Ltd.