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CHALLENGES AFFECTING USE OF I.C.T BY SMALL & MEDIUM SIZED ENTERPRISES (SMES) IN KENYA: A CASE STUDY OF TSAVO SECURITIES LTD

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Abstract

Purpose: The purpose of the study was to underscore the challenges faced by Small and Medium Sized Enterprises (SMEs) in using Information Communication Technologies (ICT) in the case of Tsavo Securities Ltd.

Methodology: A descriptive case study design was used in this study and the population (32 employees) constituted all the employees appearing on the employment register. A sample of 50% (16) was selected from the population. A self-report questionnaire was the data collection tool used in this study. The data was analyzed by use of inferential statistics and presented using graphs and charts.

Results: Findings in this study indicate that inadequate funds and costs of acquiring hardware and software, inadequate training, lack of an ICT policy and poor ICT security were fundamental challenges facing SMEs in Kenya. Benefits accruing to SMEs from the use of ICT were competitive advantage, local expansion and cost saving.

Unique contribution to theory, practice and policy: The researcher concluded that the above challenges affected the use of ICT use by SMEs. Consequently, the researcher suggested several solutions to curb these challenges. The deepening of the local SME financial market was advocated for to curb the challenge of finance. In addition, the introduction of an ICT policy was advocated for. Training needs needed to be addressed by the introduction of government sponsored ICT training initiatives. The study recommended an investigation into the causal relationship between ICT use and financial performance.

Keywords: *challenges, information communication technologies, small and medium enterprises*

1.0 INTRODUCTION

Information and communications technology (ICT) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems, as well as the various services and applications associated with them, such as videoconferencing and distance learning. ICTs are often spoken of in a particular context, such as ICTs in education, health care, or libraries (OECD, 2005).

According to Wikipedia Online dictionary, ICTs stand for information and communication technologies and are defined, for the purposes of this primer, as a "diverse set of technological

tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony (www.wikipedia.org).

In July 1999 the Government of Kenya officially liberalized the telecommunications sector and the Communication Commission of Kenya (CCK) was formed to regulate the sector. It was felt that these initiatives will highly improve the country's telecommunications infrastructure, and ensure competitiveness in international markets. Successful use of information technology in any given country is driven by the state of the telecommunication and information infrastructure available in that country. Kenya is one of the fastest growing Mobile markets in Africa (CCK Report, 2007). Within a seven Year period Kenya growth in the Mobile industry has managed to connect 11 million subscribers (Business Daily, 2008). Since the 1970's the Kenya government has shown a very keen interest in improving telecommunications in the country, and has in fact recently set a target to increase Tele-density in both urban and rural areas by about five times by the year 2015 (CCK Report, 2007).

Small and medium enterprises (SMEs) are an important factor in the East African economies in general and the Kenyan economy in particular especially with respect to employment. Nonetheless, SMEs are facing increasing competition through globalization as most multinationals are exploiting those markets which were before designated for SMEs. Globalization which is evidenced by the rapid spread of information and communication technologies (ICT) and ever decreasing prices for communication, makes markets in different parts of the world become more integrated. Therefore, one basic question is whether the use of ICT (as production technology, as information processing technology or as information communication technology) can help SMEs to cope with this new challenge. Information asymmetries are one of the major causes for high transaction costs, uncertainty and therefore market failure (Wolf, 2006) A reduction of the information gap also reduces the ability of the better informed to extract rents from the less informed be it buyers or sellers of goods or factors. A reduction of information asymmetry will also create new opportunities and therefore enhance the efficiency of resource allocation. On a macro level this will then lead to faster growth and diversification of the economy (Matambalya, 2000).

Several benefits have accrued to those firms applying ICT in their day to day activities. Some of these benefits include increased management efficiency as well as increased competitiveness. Nonetheless, it is the researcher's casual observation that ICT is not being given the attention it deserves by the owners of SMEs. Sethna (1992) observed that small enterprises use simple technology that is often human powered and this limits the quantity of goods to be produced and hence the growth of the enterprise. He concludes that entrepreneurs require access to technical skills upgrading and to appropriate technology so as to produce quality goods and increase their sales. McCormick (1992) attributes the poor quality of goods manufactured by SMEs to poor technology. Goods manufactured are therefore unable to compete with goods coming from the Asian countries which have better technology. There was therefore need to analyze challenges affecting the utilization of ICT in SMEs.

Tsavo Securities is a Stock Broker with the Nairobi Stock Exchange licensed by the Capital Markets Authority. Tsavo securities were incorporated in 2006. In 2007, the company was granted license as an agent of the Suntra Investment Bank. Since then, it has moved quickly to

establish itself as one of the rapidly developing security firms in the country. Its vision is aimed at becoming a leading Securities firm in Kenya, East Africa and the World through provision of high quality professional, advisory and consulting services in capital and money markets. Its motto of "Buy low and sell high" demonstrates its focus on ensuring that its clients create wealth by identifying undervalued properties and disposing them when the time is right

1.1 Problem Statement

A review of literature indicates that the development of SMEs in developing countries is a topic that has attracted a lot of academic and research attention. The government of Kenya has been at the forefront in spearheading policy formulation in an effort to popularize the establishment of SMEs after coming to realization that this strategy presents a strong weapon for alleviating poverty as well as the achievement of the Millennium Development Goals (MDGs). Nonetheless, it has been noted by ICT experts as well as business experts such as Kashorda (2007) and Wagacha (2007) that there exists scanty information or literature concerning ICT dissemination and uptake by small firms. It has been noted that the professionals in the service sector such as law firms, Accounting firms, Clinics, Architects, Stock brokerage firms and property management firms seem not to use ICT as much as they should despite the perceived documented benefits of ICT. These benefits have been identified as management efficiency, increased competitiveness, local and regional expansion. Hence, the study aimed at establishing the challenges faced by SMEs in ICT use.

1.2 Research Objectives

i. To assess the effect of finance on the utilization of ICT by Tsavo Securities Limited.
ii. To find out the effect of ICT policy on the utilization of ICT on by Tsavo Securities.
iii. To determine the effect of training on the utilization of ICT by Tsavo Securities Limited.
iv. To find out the effect of security concerns on ICT use by SMEs

2.0 LITERATURE REVIEW

The definitions used to describe the MSE/SME sector in Kenya are based on employment size (and include both paid and unpaid workers). First and foremost, the sector definition differs from country to country. In South Africa, the term SME refers to Small and Medium enterprises. However, studies done in Kenya, by the ministry and other private researchers recognize that medium enterprises constitute the missing gap in Kenya small business landscape. Hence, the studies define and use the terms MSE/SME to refer to small and micro enterprises. A micro-enterprise is defined as having no more than 10 employees; a small enterprise with 11-50 employees; and a medium/large enterprise with more than 50 employees. Farm holdings are excluded from the definition of MSEs, except those farm-based enterprises that involve some sort of processing before marketing. For example, a farmer who goes to market to sell roasted maize at the marketplace or at the roadside is seen as operating an MSE. Thus, the term micro and small enterprise(MSE) or small and micro enterprises(SME) covers the range of establishments, including informal economy activities that include one or more persons and enterprises in the formal economy employing up to 50 persons. The Ministry of Labour and Human Resource Development (MLHRD), which is the lead government agency for the MSE

sector, makes provision for both formal and informal enterprises, classified into on-farm and non-farm categories, employing 1-50 employees.

In GOK paper No.2 of 1986 and 1997, the government recognizes the importance of small enterprise sector as a primary means of strengthening Kenyan's economy through industrialization and enhancing private sector contribution to national economic growth. Small enterprise sector includes a variety of economic activities that responds to a wide range of market demand and opportunities. Economic activities are either in service and trade industry. The size of the SME/MSE sector has commonly been determined by the number of employees. In the Kenyan context the sector employs between 0-50 people per enterprise (GOK, 1 992). The sector has two clusters as follows: (McCormick, 1992).

a) micro enterprises - these are the smallest and employ between 0-10 people ,

b) Small enterprises employs between 11 to 50 workers

The last three decades have witnessed a sea change in the character and functioning of the world economy. With the speeding up of the relative decline of the industrial sector, the rise of the services economy, and the growing ubiquitous ness of information and communications technologies (ICT) a 'new economy' has been created. There is increasing recognition that knowledge-based economic activities are key to international competitiveness and productivity growth, and that industrialization, particularly manufacturing, is no longer viewed as the principle driver of economic growth. This poses a fundamental question: what are the implications of the new economy for developing countries? (WIDER Angle, 2006).

A Study by WIDER (2006) was a major initiative to better understand the relationship between development and the new economy. This initiative, under the direction of Matti Pohjola (University of Helsinki) involved three interrelated research projects undertaken between 1998 and 2003: 'Information Technology and Growth', 'Production, Employment, and Income Distribution in the Global Digital Economy', and 'Information Technology and Global Economic Development'.

Several empirical studies show that the impact and potential of ICT for development are at best mixed and there is considerable variation within and among countries. Small domestic markets, as in Argentina, limit the adoption of ICT and thus productivity growth. This can be seen also in the case of several transition economies of central and Eastern Europe. In the Arab region income differences and low levels of human capital development seem to hinder the widespread diffusion of ICT (D'Costa, 2005)

Developing countries are structurally disadvantaged in seeking the best from the global regime of ICT infrastructure, which, inter alia, is related to their lack of key ingredients such as human capital, physical infrastructure, and venture capital to exploit ICT. But that does not mean the doors are closed. Poor countries (such as the Philippines and India) that have unwittingly created human capital are better placed to interact with the global economy, adapt imported ideas and know-how, and localize them. The wide variation in ICT diffusion is mainly due to weak economic and institutional environments. This suggests that 'old' economy needs such as infrastructure development and domestic market stimulation are still relevant (Heeks, 2002).

Several lessons emerge from these individual studies. First, ICT, in the form of automation, suggests not only increasing competitiveness of small and medium enterprises due to productivity growth it also results in labour displacement, especially of the unskilled. At the same time, productivity-led opportunities thrown open by economic integration suggest that the vast rural poor and illiterate populations may miss out on the benefits of ICT if appropriate social policies are not aimed at improving the quality of their lives. Second, developing countries must still contend with traditional development concerns such as poverty and inequality as well as structural transformation from agriculture to industry. Yet, they must be alert to the possibility that increasing export competition in labour-intensive manufactures means declining terms of trade when not offset by continuous learning and technological upgrading (Castells, 2002).The new economy also imposes a reduction in social protections due to endemic fiscal crisis and business demands for flexibility and deregulation, open unemployment due to privatization of the state sector, and, paradoxically, by productivity-enhancing ICT. The continued emphasis on investment in traditional development spheres such as education, literacy, basic health, and physical infrastructure is considered necessary to make participation in the new economy more effective (Ibid)

Third, while the evidence of productivity growth based on ICT diffusion is not robust for developing countries, partly due to productivity lags, it would be foolhardy to ignore the benefits of ICT in poor societies. If anything, ICT is an enabling carrier technology, applicable in both new and old economies. While ICT is not a panacea for poverty, developing countries, if they fail to actively engage in the use and production of ICT goods and services, are likely to be impoverished further and experience deepening problems associated with the global digital divide (Ibid).

Fourth, to avoid global polarization the consumption of both ICT goods and services must be increased. ICT services can be employed in a wide variety of social and economic sectors such as education, health, rural development, business, banking, and manufacturing activities. Thus, fostering knowledge workers and establishing communications infrastructure is consistent, though in conflict resource allocation-wise, with basic education and human capital development and with infrastructure spending on rural roads and irrigation. The fundamental development challenges of literacy, basic education, alleviation of poverty and inequality, health, and the rural-urban gap could be addressed by wider ICT adoption, complemented by a variety of critical services to under-served rural and low-income constituencies. Poor countries must foster e-development to complement a wider development strategy to meet basic needs. Based on the extensive and intensive use of ICT, public sector services can be efficiently provided to citizens, business, and to various government departments. The expected benefits are lower transactions costs, greater efficiency in service delivery, more transparent governance, and productivity growth (D'Costa, 2005b)

Fifth, the challenges to the implementation of such projects should not be underestimated as they require financial and human resources, long-term commitment, intra-government coordination, and public acceptance. ICT cannot be seen as a technological fix to what are essentially social and political problems. At the same time, the economics of ICT suggest that developing countries cannot increase their long-term economy-wide productivity if they remain outside the

new economy. The role of the government and other institutions cannot be overemphasized, especially in areas of regulatory reform.

Finally, the continued emphasis on knowledge workers, information literacy, and communications infrastructure vital to participating effectively in the new economy also suggests that developing countries must find a political voice at the global level so that they are not excluded from the multilateral negotiations on the emerging global information society. In the end global participation must be complemented by the ensuing 'good' governance that is expected to emerge from the widespread adoption of ICT (Chowdhury & Wolf, 2006).

The new economy notwithstanding, developing countries in the world and especially in Africa must still contend with traditional development problems such as poverty and inequality as well as structural transformation from agriculture to industry (Cypher & Dietz, 2004). These countries continue to be plagued by low levels of economic development and low living standards (Castells, 2000; Hoogvelt, 2001). Increasing export competition in labour-intensive manufactures means declining terms of trade and a reduction in social protections due to endemic fiscal crisis. Whatever job growth exists is accompanied by the ever-expanding informal sector in urban self-employment or low-value services, open unemployment due to privatization of the state sector and, paradoxically, by productivity-enhancing new technologies. China, and to some extent India, known for recent robust growth and massive expansion in the production and consumption of ICT goods and services, is also faced with rising unemployment and regional inequality (Meng & Li, 2002: 277; D'Costa, 2003a). The continued emphasis on investment in old development spheres such as education, literacy, basic health and physical infrastructure is necessary (D'Costa, 2003a; Gadfrey, 2003).

Furthermore, the evidence of productivity growth based on ICT diffusion is not robust, certainly not for developing countries (Heeks, 2002).For example, the data on adoption of ICT by SMEs in Kenya, Tanzania and India show a negative or weak relationship between adoption and productivity (Chowdhury & Wolf, 2006). Also, there are considerable productivity lags with the diffusion of ICT (Andersen and Corley, 2003). Consequently, it may not seem realistic or attractive for poor countries to participate in the new economy, which rests heavily on a highly skilled and educated workforce, a developed communications infrastructure, high investment in fixed capital and high income (Pohjola, 2001; Clarke, 2003).

Small and medium enterprises (SMEs) are an important factor in the East African economies in general and the Kenyan economy in particular especially with respect to employment. Nonetheless, SMEs are facing increasing competition through globalization as most multinationals are exploiting those markets which were before designated for SMEs. Globalization which is evidenced by the rapid spread of information and communication technologies (ICT) and ever decreasing prices for communication, makes markets in different parts of the world become more integrated. Therefore, one basic question is whether the use of ICT (as production technology, as information processing technology or as information communication technology) can help SMEs to cope with these new challenges. Information asymmetries are one of the major causes for high transaction costs, uncertainty and therefore market failure (Wolf, 2006). A reduction of the information gap also reduces the ability of the better informed to extract rents from the less informed be it buyers or sellers of goods or factors. A reduction of information asymmetry will also create new opportunities and therefore enhance

the efficiency of resource allocation. On a macro level this will then lead to faster growth and diversification of the economy (Matambalya, 2006).

3.0 RESEARCH METHODOLOGY

A descriptive case study design was appropriate for this study. The population from which the conclusion for the study was made included all the employees in the employment register at the time of study. The employment register which also represents the sampling frame consisted of 32 employees. A sample size of 50%, that is 16 (half the population) was considered representative. Finally, the 16 respondents were chosen using systematic sampling procedure. Hence every 2nd employee appearing in the employment register was included in the sample. The study used primary data collected through a questionnaire for data analysis but also used secondary data as a source of literature review. The data collected was analyzed by use of inferential statistics. In particular, frequency tables, averages and percentages were used. The tool of analysis was Microsoft Excel spreadsheets though Statistical Package of Social Sciences (SPSS) was used to a low extent.The data was then presented using tables, graphs and charts.

4.0 RESULTS AND DISCUSSIONS

4.1 Response Rate

Findings in this study indicated that the 97% response was observed from the selected sample of 32 employees. One questionnaire was invalid (3%) as it was partly unfilled. Therefore, the data analysis was based on (97%) questionnaires.

Table 1: Response Rate

Response	Response rate	% Response
Yes	31	97%
No	1	3%
Total	32	100%

4.2 General Information

The majority of respondents in this study (70%) were female while (30%) were male respondents. This indicates that there were more female than male respondents.

Table 2: Gender of Respondents

Gender	Response rate	%Response
Female	22	70%
Male	9	30%
Total	31	100%

According to this study, the majority of respondents (60%) had college level education while another (40%) had university level education. However, no other response was obtained on this variable meaning that the employees of Tsavo Securities Limited were highly educated.

Table 3: Highest Education Attained

Education level	Response rate	%Response
University	19	60%
College	12	40%
Secondary	0	00%
Total	31	100%

The majority of respondents (75%) according to this study were non managerial staff while (25%) were in management. Consequently, majority of our respondents were employees who could answer the questions in the questionnaire from a critical and objective point of view since they were not in management.

Table 4: Position in Organization

Position	Response rate	%Response
Managerial	8	25%
Non Managerial	23	75%
Total	31	100%

Majority of the respondents (75%) had worked in the organization for a period of one to two years. In addition, (25%) of the respondents had worked for Tsavo Securities limited for a period of less than one year. However, none of the employees had worked at Tsavo securities Limited for more than 3 years as the firm was about two years old since its inception and registration.

Table 5: Number of years Worked

Years worked	Response rate	%Response
Less than a year	8	25%
1 to 2 Years	23	75%
3 years and above	0	00%
Total	31	100%

The majority of the respondents (50%) were working in sales department. In addition, (20%) of respondents were working in the advisory department. A further (20%) worked in the customer care department while the remainder (10%) worked in the accounts department. Majority of respondents are in sales.

Table 6: Departmental Positions

Departments	Response rate	%Response
Customer Care	6	20%
Sales	16	50%
Accounts	3	10%
Advisory	6	20%
Total	31	100%

4.3 Finances and the Use of ICT in SMEs

One of the objectives of this study was to assess the effect of finance on the utilization of ICT by Tsavo Securities Limited. Majority of the respondents (80%) agreed that inadequate finances affect the use of ICT by SMEs while a few (20%) disagreed.

Table 7: Finances and the use of ICT in Organizations

Do finances affect the use of ICT in the organization?	% response	Response
Yes	80%	25
No	20%	6

It was noted in the respondents' explanations that the firm was facing financial constraints which limited its ability to acquire computers for all employees, mobile phones for all employees as well as connect every employee to the internet. In addition, the firm had other pressing needs such as furnishing of offices and paying the salaries of its employees hence allocation of funds for ICT was not considered mandatory.

4.4 ICT policy and Use of ICT by SMEs

The second objective in this study was to find out the effect of ICT policy on the utilization of ICT on by Tsavo Securities. As in Table 8, all the respondents (100%) in the study unanimously stated that the firm (Tsavo securities Ltd) did not have an ICT policy.

Table 8: ICT policy and Use of ICT

Do you have an ICT policy in you firm?	% Response	Response
Yes	0%	0
No	100%	31

All the respondents (100%) in this study indicated that the presence or otherwise of an effective ICT policy affects the use of ICT by SMEs. The respondents indicated that the lack of an effective ICT policy led to the lack of ICT efforts in the same organization. According to some respondents, an effective ICT policy laid out the objectives of using ICT, the perceived benefits and the mechanisms of implementing the ICT policy. No other response was obtained for this variable.

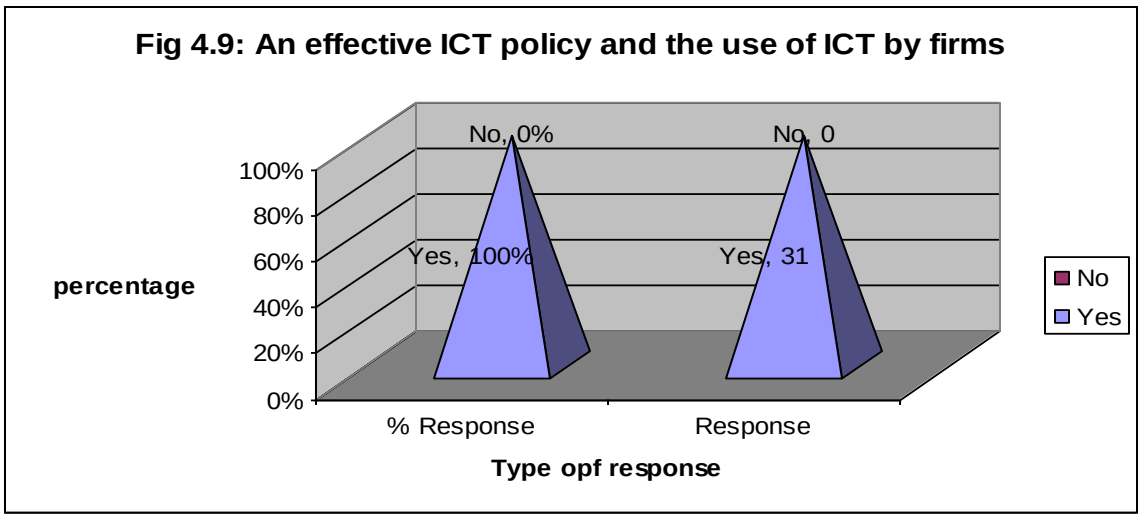

Figure 1: An Effective ICT Policy and the Use of ICT by SMEs

4.5 Training and Use of ICT by SMEs

The third objective was to determine the effect of training on the utilization of ICT by Tsavo Securities Limited. According to the majority of respondents (68%), training needs were a fundamental challenge affecting use of ICT by SMEs. However, (32%) of respondents did not see trainings as a fundamental challenge to ICT use by SMEs. The majority of respondents indicated that they were only equipped with Microsoft word and excel application knowledge. A significant proportion of the respondents had hands on experience in customer care software use while a small proportional had hands on hardware maintenance knowledge. Many of respondents claimed that training in ICT was fundamental as it enabled better service delivery to clients.

Table 9: Training Needs

Training needs as a fundamental challenge affecting use of ICT by SMEs	% response	Response
Yes	68%	21
No	32%	10

It was also noted that training was rarely carried out in the firms as shown by the majority of respondents (62%). Meanwhile, (25%) of the respondents indicated that training was often carried out in the organization. Only (13%) of the respondents indicated that ICT training was undertaken very often.

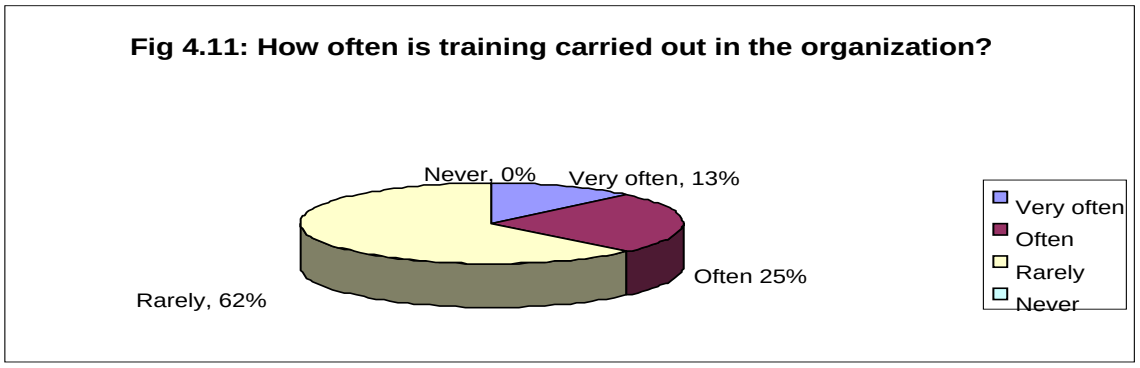

Figure 2: How often is Training carried out in the SMEs

4.6 Security Concerns and Use of ICT by SMEs

The fourth objective was to find out the effect of security concerns on ICT use by SMEs. The majority of respondents (48%) rated the ICT security in their organization as fair. Furthermore, while (42%) rated the ICT security as poor, (10%) rated the ICT security as good. None of the respondents rated the ICT security at Tsavo Security Limited as excellent.

Table 10: Rate the ICT security in SMEs

How would you rate the ICT security in your organization?	% response	Response
Excellent	0%	0
Good	10%	3
Fair	48%	15
Poor	42%	13

The majority of respondents (67%) indicated that the state of ICT security affected the use of ICT by the firm. When requested to elaborate, the majority of respondents indicated that, security threats such as data corruption through virus attacks, hacking and physical theft of computers were major concerns that made the acquisition and use of computers, mobile phones and other peripherals at the work place to be considered less important. However, (33%) of respondents indicated that the state of ICT security did not affect the use of ICT by Tsavo Securities Limited.

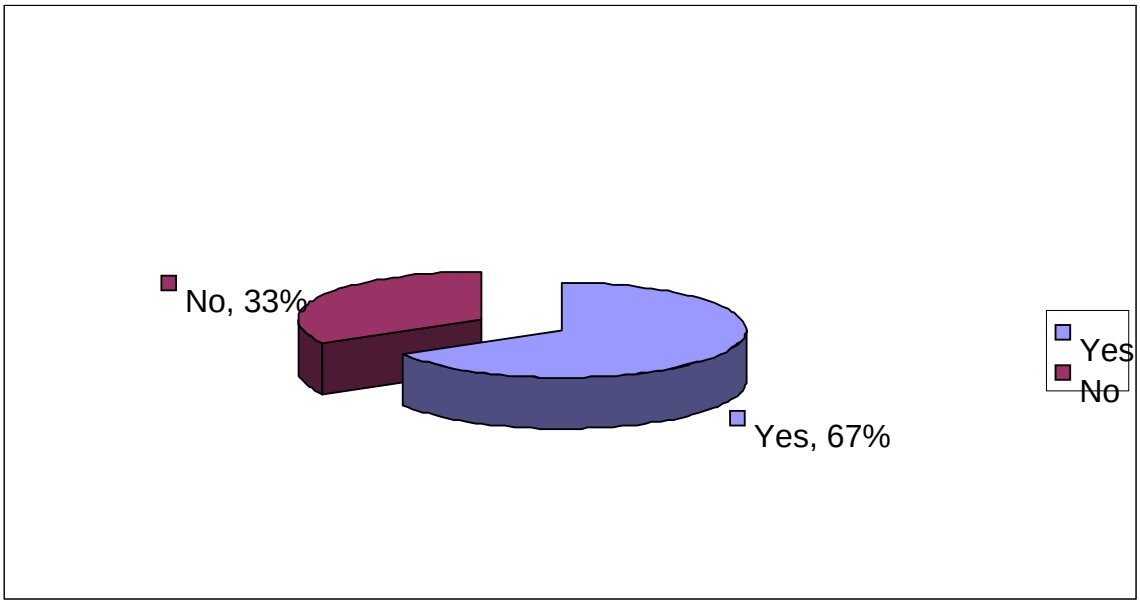

Figure 3: Does the stated level of ICT security affect the use of ICT by your firm?

4.7 Qualitative Analysis/Discussion of Findings

4.7.1 What is the effect of finance on utilization of ICT by the selected firm?

It was noted by the majority of the respondents' that the firm was facing financial constraints which limited its ability to acquire computers for all employees, mobile phones for all employees as well as connect every employee to the internet. In addition, the firm had other pressing needs such as furnishing of offices and paying the salaries of its employees hence allocation of funds for ICT was not considered mandatory. Explanations from the respondents indicated that the cost of acquiring cloned computers ranged between KShs 15,000 and Kshs 25,000 which by all standards was expensive as many computers were required to cover all the staff requirements. Meanwhile, the respondents cited the cost of branded computers to be very high as the cost ranged from KShs 30,000 and above. Other computers peripherals such as printers, modems, uninterrupted power supplies and scanners were quoted as requiring a significant capital investment. The respondents also quoted that soft wares costs were unmanageable. In particular, customer service software acquisition costs ranged above Kshs 200,000 while the annual maintenance costs were above Kshs 50,000 per year. The researcher agrees with the respondents' explanation to the issue of the effect of finance on ICT use by noting that inadequacy of funds coupled by high cost of hardware and software is a logical constraint to ICT use.

4.7.2 What is the effect of ICT policy on use of ICT by the selected firm?

Majority of the respondents understood the relative advantages of having a written down ICT policy. According to their explanations, an effective ICT policy laid out the objectives of using ICT, the perceived benefits and the mechanisms of implementing the ICT policy. Since all the respondents indicated that the firm in question did not have an ICT policy, none of them replied the question relating to how effectively the ICT policy had been adhered to. The researcher wishes to add his voice to these findings and argue that the presence of an ICT policy is the first step to effective use of ICT by firms. Consequently, the researcher wishes to provide the analogy

of setting out on a journey without a map (written or otherwise). Accordingly, a written map is preferred so that in case of mistakes, references can be made. The same would be said for an ICT policy.

4.7.3 What is the effect of Training needs on ICT utilization by selected SME

The majority of the respondents indicated that training was rarely carried out.The researcher wishes to add his voice to this finding by offering an argument that small business can't afford to offer training because of the relative financial investments required coupled by the fact that they cannot exploit economies of scale in training. Furthermore, they cannot afford sending their employees on external training due to the fact that training interferes with work schedules for small firms. As a result, the majority of respondents indicated that they were only equipped with Microsoft word and excel application knowledge. A significant proportion of the respondents had hands on experience in customer care software use while a small proportional had hands on hardware maintenance knowledge. Many of respondents claimed that training in ICT was fundamental as it enabled better service delivery to clients.

4.7.4 What is the effect of ICT security on ICT utilization by the selected SME?

When requested to elaborate, the majority of respondents indicated that, security threats such as data corruption through virus attacks, hacking and physical theft of computers were major concerns that made the acquisition and use of computers, mobile phones and other peripherals at the work place to be considered less important. It is the researcher opinion that the probable cause of a poor state of ICT security in the firm was poor training in the area of ICT security as the area required technical knowledge on systems theory, management of information systems particularly the administration of logical access passwords, installation of antivirus such as Kaspersky, Norton antivirus, MacAfee antivirus coupled with windows firewall to safeguard against external and remote data security threats such as hacking.

5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

5.1 Findings

Pertaining to effect of finance on utilization of ICT by Tsavo Security, the majority of respondents indicated that the cost of computer hardware and software was exorbitantly high and the maintenance costs were also significant. The cost of acquiring ICT and the limited funds available for use by Tsavo Limited was a major determinant for the level of ICT use by the firm. In this study, finance challenges led to low use of ICT by Tsavo Limited.

Pertaining to effect of ICT policy on use of ICT by the selected firm, all the respondents (100%) in this study indicated that the presence or otherwise of an effective ICT policy affects the use of ICT by SMEs. The respondents indicated that the lack of an effective ICT policy at Tsavo Securities Limited led to the lack of ICT use in the same organization.

On the effect of training needs on ICT utilization by selected SME, it was noted in this study that training was rarely carried out in the organization as shown by the response of majority of respondents. Consequently, the majority of the respondents also noted that training was a fundamental challenge to the use of ICT by SMEs and lack of training in the organization led to low utilization of ICT by Tsavo Securities Limited.

These findings are consistent with findings on a study carried by Parsely (2006) titled "Employee Training decisions, business strategies and Human resource management practices: a study by size of business". According to the study by Parsely, small businesses are less likely to provide training activities to their employees than medium-sized and large businesses. However, it is clear that once they commit to investing in employee training, small businesses do so as intensively as medium-sized and large firms. The researcher wishes to add his voice to this finding by offering an argument that small business can't afford to offer training because of the relative financial investments required coupled by the fact that they cannot exploit economies of scale in training. Furthermore, they cannot afford sending their employees on external training due to the fact that training interferes with work schedules for small firms.

As it pertains to the effect of ICT security on ICT utilization by the selected SME, the majority of respondents rated the ICT security in their organization as fair while a significant portion also rated the ICT security as poor. According to the respondents inadequate ICT security was a seen a fundamental challenge to the use of ICT by firms as most firms feared the corruption of data by viruses as well as data theft by hackers. Therefore, this led to low utilization of ICT by the firm.

5.2 Conclusions

From this study the researcher was able to infer that ICT use by SMEs in general and Tsavo Securities Limited in particular was negatively affected by challenges such as inadequate finances, training needs, poor ICT security and lack of ICT policy.

5.3 Recommendations

To bring down the costs of ICT equipment's, the government needs to reduce importation costs the ICT equipment to enable easy affordability to SMEs firms. The removal of duty taxes on the Computers goes a long way in curbing these costs. The youth fund, the women fund, banks and other sources of funds need channel funds to ICT intensive SMEs. In addition; the sources of funds should emphasize the use of ICT by SME owners. By so doing, they will be bridging the financing gap.

One of the recommendations towards minimizing challenges of ICT use by SMEs was the introduction of ICT training schools for SME owners and staff. To facilitate this, both on the job courses and externally sponsored courses should be funded jointly by the government, NGOs and the SMEs themselves. The recent introduction of free government training to entrepreneurs wishing to set up ICT villages was a move in the right direction. The speedy completion of the fibre optic cable will go a long way into enhancing internet penetration. Workshops on creating awareness of potential areas of ICT application in SMEs need to be jumpstarted. Workshops on creating awareness of potential areas of ICT application in SMEs need to be jumpstarted.

A policy frame work on SMEs needs to be worked on to facilitate growth of SMEs by eliminating general SMEs constraints such as legal and infrastructural constraints. The researcher recommends that the removal of Viruses on computer software's would be ideal since it will reduce the risks involved in destruction. The introduction of Antivirus goes a long way in helping this. Antitheft gargets should be installed and passwords to avoid hacking into computers and stealing of hardware's.

5.4 Suggestions for Further Studies

The researcher would recommend a causal study on the relationship between ICT use and financial performance of SMEs. In addition, a conclusive study on whether user of ICT leads to an improvement in customer satisfaction will be necessary. Finally, a study should analyze if use of ICT lead to increased morale in the work force?

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