

Ict A Synergy For Leveraging Business Access Opportunities Among SMEs In Kenya

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Abstract: Information Communication technology is considered as the drivers for competitiveness, innovation and change in our modern economy. ICT is changing our lives – the way we socialize, work, shop, search for information, and communicate. The evidence available shows that many people in Africa are now connected to the internet and the number is increasing at tremendous rate. SMEs inherently faces Market access constraints which includes; poor quality products, lack of knowledge to explore niche markets, limited resources to promote their products and poor market research. While considering these, ICT can improve market access by facilitating communication with customers, competitive positioning, enable information acquisition and production of quality products, generation of market information, reduction in logistic costs, facilitating access to global markets, facilitating market research, networking, market transactions and market identification. The study therefore explored the nature of leverage ICT offers to the SMEs. The study was conducted in Kisumu City (Central Business Districts) in Kenya using Survey research design with a target population of 481 of small enterprises firms in Kisumu City Central Business District. The sample population was stratified into two strata namely zone eight and seven and the sample of 144 were selected using purposive sampling method. The sample size was determined according to Yamane (1967:886) formula for sample size determination. Data was collected through the use of questionnaire and the results presented in tables.

Keywords: ICT Leveraging; SMEs; Access Opportunity

I. BACKGROUND OF THE STUDY

It has become undisputable that the technological changes of ICT in terms of emerging trends and technologies are here to stay, those organizations that can effectively grasp the deep currents of technological evolution can use their experiences to protect the organization against eventual fatal technological obsolescence. Haag et al (2008), argues that ICT forms a conscious belief that all business enterprises require new operational techniques and strategies to match the learning and innovational needs, to maintain customer dynamism and quest for high quality products/ services that satisfy those needs. To manage this dilemma in a business enterprise, information and communication has become an essential ingredient for the survival and growth of a business on a day today endeavors. This requires systems to provide information and communicate them effectively in a business entity (James and

Charles, 2011). On the other hand, Information and Communication Technology (ICT) has been identified as an enabler of other sectors, (GOK, 2007) presenting enormous opportunities for SMEs to improve market access. ICT is an indispensable tool in the highly globalized, knowledge economy. Market access constraints facing SMEs include; poor quality products, lack of knowledge to explore niche markets, limited resources to promote their products and poor market research. ICT can improve market access by facilitating communication with customers, competitive positioning, enable information acquisition and production of quality products, generation of market information, reduction in logistic costs, facilitating access to global markets, facilitating market research, networking, market transactions and market identification.

It is commonplace for governments to have policies to encourage the growth of local small and medium enterprises

(SMEs) as they can help directly alleviate poverty by increasing income levels and creating jobs. However, as the global economy becomes increasingly reliant on information and communications technology (ICT) to receive, process, and send out information, the small businesses within the Africa region – which form a significant portion of their developing economies – have yet to reap these benefits evenly. This is because obtaining such opportunities rests largely upon the ability of SMEs to engage in the regional and global economic business networks which, in turn, demand provision of a prerequisite level of access to and use of ICT (Chacko and Harris 2005).

STATEMENT OF THE PROBLEM

Information communication technology is considered as the drivers for competitive advantage, globalization, innovation and change in the modern economy, especially third world economies in Africa. ICT is changing our lives – the way we socialize, work, shop, search for information, and communicate. The evidence available shows that many people in Africa are now connected to the internet and the number is increasing tremendously. Information technology applications cut across all industries and services and create wealth, growth and jobs. Adoption of internet technologies has translated to more than 75% value addition in traditional industries. The ICT's main impact is through the modernization of traditional activities. Smart innovation enabled by the Internet and ICT developments leads to higher productivity and has benefited all industries.

Technology is no longer an afterthought in forming business strategy, but the actual cause and driver (Kalakota et al 1999), as technical development continues information technology application are finding important new uses and becoming involved in more complex processes. The strategic and operational importance of Information Technology in e-business enterprise is no longer questioned. Melymuka and Kathleen (1999) noted that, Information Technology is the bloodstream that feeds the business process. Information technology penetrates more deeply into all business processes and helps to create many new businesses, IT executives and other senior executives struggle with technical and policy related issues. It was therefore the impetus of the study to assess the performance of business after integration ICT in there operations.

THE OBJECTIVES OF THE STUDY

The general objective of this study was to examine the role of ICT use as a synergy to leverage business opportunities among small enterprises with specific reference to SEs in Kisumu City.

The specific objectives were;

- ✓ To identify the ICT access challenges facing SEs in business environment
- ✓ To determine the perceived opportunities offered by ICT and business performance by SEs.

STUDY JUSTIFICATION

This study is important because proper use of ICT can improve efficiency and increase productivity of SMEs through different ways including, improving efficiency in resource allocation, reducing transaction costs and technical improvement leading to the outward shifting of the production function.

II. ICT ACCESS CHALLENGES

BUSINESS DYNAMISM

Nonaka and Ikujiro, (1991), asserted that in an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge. When markets shift, technologies proliferate, competitors multiply, and products become obsolete almost overnight, successful companies are those that consistently create new knowledge, disseminate it widely throughout the organisation, and quickly embody it in new technologies and products. These activities define the “knowledge-creating” company, whose sole business is continuous innovation.

Companies erect entry burners by offering customers and other market participant's attractive products and services at a price and level of quality that competitors cannot match. This place ICT as a driver of the companies to achieve there leverage over competitors. Over time, however, these technology-based advantages decreased. The sustainable advantage came from second-order burners to entry created by exploiting the value of information generated by the technology and the value of the loyal community of suppliers, customers and partners that did business by using the company's proprietary digital infrastructure.

The achievement of IT as strategic resource can only be realised with its alignment to business requirement and environment. Even after an organisation has achieved alignment, its environment continues to change, slowly or rapidly. However, organizations may not be able to adjust their adjustment patterns to accommodate environmental changes, due to two major reasons. First, an overemphasis on alignment could constrict the organization's outlook, inhibiting the recognition of alternative perspectives and reducing the ability to recognize and respond to the need for change (Miller, 1996). Indeed, the low cost and ease of penetration decrease the benefits to any participant unless people within the firm are capable of learning and responding more quickly and more effectively than others, are able to build proprietary capabilities that are not easily replicable, and can attract a large, loyal community that remains connected despite the availability of seemingly comparable alternatives.

To provide a sustainable source of revenue, an IT System ideally should be easy to start using, but difficult to stop using. Customers drawn into the system through a series of increasingly valuable enhancements should willingly become dependent on the system's functionality. Once the use of the system becomes ingrained within day-to-day activities switching on another system becomes difficult and costly.

IMPLEMENTATION PROCESS OF INFORMATION SYSTEM

It is notable that a system development backlog of projects exists in many organizations today. Users, frustrated with the high cost and time commitment involved in traditional development strategies. Many of the information systems design projects in the backlog, they feel, are critical to achieving a competitive advantage by providing better service to customers, by offering new products and services, and by developing better internal information about products, customers and suppliers.

Lee et al, (1983) cited three factors to consider in evaluating projects that are candidates for development using one of these approaches. Commonality, impact, and structure (Lee et al, 1983). Commonality means the extent to which other organizations could use the system's solution to the problem, the more widespread the impact and the more important an information system is, the greater the demand for involving information systems professionals. If a company is planning to develop a national network tying its customers to its order entry system, for example, the major impact of this project on customer service and sales would dictate professional miss-involvement. They further defined it, as a measure of how well the problem and its solution are understood.

An accounts receivable system is a highly structured system because its operations are clearly defined and well understood. However, a decision support system used to make a corporate acquisition decision would be unstructured and complex. They further suggest that a development approach can be selected on the basis of the commonality, impact and structure of an information systems design project (Scheltheis and Sumner 2006). Effective implementation of information technology would tend to decrease liability by reducing the cost of expected failures and increase flexibility by reducing the cost of adjustment.

Implementation must begin with complete communication about the goals and benefits of the new system. Everyone who will be affected by the change should understand the implementation schedule. Thorough training in technical and operating procedures is absolutely necessary for any system to work effectively. After the system is in operation, expectations for user's performance should be reasonable. It may even be necessary to designate a period during which performance will not have a negative impact on employee reviews. Finally, if problems occur, systems designers should react quickly so that unfavorable attitudes do not develop.

Martin (1991) points out that faster, better, cheaper does not necessarily mean "quick and dirty". The need for fast and efficient design and implementation means that time – intensive activities must be automated or, at the very least, supported by appropriate technology.

The world-class enterprise of tomorrow is built on the foundation of world-class application clusters implemented today (Kalakota et al 1999). Effective implementation of information technology would decrease liability by reducing the cost of expected failures and increase flexibility by reducing the cost of adjustment. The business reaction to the

environment remains to be the vital determinant for its effectiveness.

ETHICS AND POLICIES

In today's new legal environment, managers who violate the law and are convicted will most likely spend time in prison. United states of America (USA) federal sentencing guidelines adopted in 1987 mandate that federal judges impose stiff sentences on business executives based on the monetary value of the crime, the presence of a conspiracy to prevent discovery of the crime, the use of structured financial transactions to hide the crime, and failure to cooperate with prosecutors (U.S. sentencing Commission, 2004).

An integrated ICT based information systems have become ubiquitous. People as well as organisations have come to depend on them not only for success and survival, but also for the conduct of everyday transactions and activities. Computer systems have invaded nearly every aspect of our daily lives. As information technology advances, it creates a continuing stream of new issues pertaining to those parts of our lives that it impacts. In business arena, information technology has presented ethical issues in four areas these areas, identified by Richard Mason, are privacy, property accuracy and access (R. Mason 1991). In addition, ethical issues surround the impact information technology has on us all.

It is not illegal to view the electronic mail messages of employees produced and stored on a private, company owned electronic mail system. However, the ethical considerations surrounding the invasion of the privacy of others would surely make most people Pause and reflect about doing it. Organisations that do review the electronic mail of their employees may claim they have legitimate reasons for doing so for example, organisations may have reason to believe that employees are selling trade secrets to competitors, or they may suspect that certain managers are engaging in biased behaviour toward peers and subordinates. Organisation may take the position that electronic mail is produced on the organization's time and using the organization's resources and is thus organisation property. They might further claim that if the notes, letters and memos written using electronic means were prepared in the traditional paper-and-pencil manner, these documents would have been stored in the organization's files and would have been subject to review by appropriate organisation personnel.

Curtis and Cobham (2008) found that organizations policy decisions on the use of their IT facilities by employees for non-work- related activities, may cover, for example, the right of the employee to use e-mail for personal purposes, during or outside of work time. The content of the e-mail may also be subject to the policy (e.g pornography) or whether the e-mail is being used for personal consultancy purposes.

The caller ID feature of modern telephone systems is another example of the mixed blessing of technological advance. Caller ID permits better levels of customer service because it allows computer systems to identify callers and bring up their files on a customer representative's screen as the files on a customer representative's screen as the call is being answered. Called ID can also sorely reduce crank,

harassing and obscene calls. However, with caller ID anonymous calls to the police to provide leads to crimes are impossible likewise, people who have unlisted number may lose that privacy each time they make a telephone call (Schulthersand Sumner, 2006).

PERCEIVED OPPORTUNITIES OFFERED BY ICT AND BUSINESS PERFORMANCE

The use of ICT leads to downsizing in organization operations. Arsanjani (2005), assert that reducing costs, obtaining state – of – the art technology, eliminating staffing and personnel problems, and increasing technological flexibility are reasons that companies have used the outsourcing and on demand computing approach(Arsanjani, 2005). Sustaining change such as new or cheaper production equipment can help an organization improve its operations.

Flexible job design and employee involvement: A key objective of HRM policies to get employees more involved in their jobs. Freeman, *et al.* (2000) argue that many firms use HRM policies such as self-directed teams, quality circles, profit sharing, and diverse other programs, to involve employees in their jobs. HRM practices such as teamwork and job rotation seem to raise skill demands primarily for behavioral and interpersonal skills such as the ability to get along with others and work in teams (Cappeli and Neumark, 1999).

Competition in the market, places the importance of ICT on customer relations and customer satisfaction. To satisfy customers, firms must design, manufacture, and deliver products and services that meet their tangible and intangible needs better than their competitors, and provide superior value. In order to retain and maintain customers and build loyalty, firms provide quality after-sales and other services (Monga, 2000).

ICT is playing a key role in the growth of customer relations management (CRM) practices. For example, to communicate with clients, sales forces in the field are supplemented by interactive web sites and call centres. In addition, advanced database technology, world-wide web integration, sales force automation and multi-media-based front office applications are emerging as key elements of CRM. Evidence from survey of managers and case study literature shows that the most important reasons for investing in ICT are product quality improvements, especially customer service, timeliness, and convenience (Bresnahan *et al.*, 2002).

Information Technology is having impact on all sectors industries and businesses, in service as well as in manufacturing. The advancement in Information Technology results in remarkable decline in the costs of synchronization and enables the business to respond to competitive forces by providing new ways of proactively and reactively deal with situational problem facing business entity. It is unquestionable that the effects of the development, spread, and use of ICT go much further than changing the industrial composition of developed economies. ICT are playing an increasing role in economic growth, capital investments, and other aspects of the macro economy (Brynjolfson & Kahin, 2000). The adoption of ICT allows for a reduction of transaction costs and leads

possibly to more efficient markets (Malone, Yates & Benjamin, 1987; Lee & Clark, 1997).

The achievement of perennial dream of the expansion of business entity into global markets has been made possible by the use of ICT. Indeed ICT has played a crucial role in the race towards globalization. Kalakota et al (1997), e-commerce is here to stay. In this millennium, the web and e-commerce are key industry drivers; it has changed how companies do business, it has created new channels for customers, making leaders in many different industries sit up and take notice. Managers everywhere are feeling the heat: their companies are at the e-commerce crossroad and there are many ways to go. (Kalakota et al, 1997)

Mobile technology helps organizations to extend out to its edges in many areas. This help in improving information accuracy, reduced costs, increased productivity, increased revenues and improved customer service. It is common to generally conclude that ICT have a large impact on production and business processes and that they thus are major stimuli of economic growth. However, there seems to be substantial disagreement about the form of this impact and researchers in the field seem mostly to use one of two major approaches (Smith, 2002).

The first approach argues that economic growth is driven by the emergence of new sectors embodying new technologies including the ICT-producing sectors themselves. In this case growth comes from two sources: (i) new sectors exhibit higher growth rates of value added, productivity and incomes and will thus function as a source of growth for the whole economy, and (ii) new sectors change the conditions of other sectors of the economy by changing relative prices, and by providing a new set of inputs that raises productivity either by the introduction of new or improved products or new production methods. The production of ICT and the emergence of new ICT-based industries contribute directly to increase GDP and to boost aggregate productivity.

The second approach argues that, since ICT represent a special type of capital good, increased investments in ICT by companies and governments will raise labour and total factor productivity. Investments in ICT complement or replace investments in other capital goods and increase the capacity of the production of ICT-using sectors and industries.

The use of IT in business operation improves business quality through continuous improvement. Companies that use total quality management are committed to: even better, more appealing, less – variable quality of the product or service, even quicker, less – variable response – from design and development through supplier and sales channels, offices, and plants all the way to the final user., even greater flexibility in adjusting to the customers' shifting volume and mix requirement, and even lower cost through quality improvement, rework reduction, and non-value – adding waste elimination (Pegels and Carl 1995).

Companies are reengineering that success in the new economy will go to those who can execute clicks – and mortar strategies that bridge the physical and virtual worlds. Different companies will need to follow very different paths in deciding how closely – or loosely – to integrate their internet initiatives with their traditional operations (Gulati et al 2000). The source further emphasized that both e-commerce integration and

separation have major business benefits and shortcomings. Thus deciding on a clicks and bricks strategy depends heavily on whether or not a company's unique business operations provide strategic capabilities and resources to successfully support integration with e-commerce venture. As it shows, most companies are implementing some measure of clicks and bricks integration, because "The benefits of integration are almost always too great to abandon entirely.

III. MATERIALS AND METHODS

The study was based in Kisumu city Central Business Districts (CBD), which is divided into two zones namely; zone seven (7) and zone eight (8), according to Municipal council of Kisumu (MCK) way of classification. The survey research design was used in the study with a target population of 481 of small enterprises in Kisumu City Central Business District. The population was drawn from the sample list from the Municipal Council of Kisumu (MCK) integrated information system (MCK, 2010). The small enterprises according to the study are enterprises with employees between 5 and 20.

A sample of 144 small enterprises was selected from the target population of 481 from zone 7 and 8 using stratified random sampling technique. The sample size was determined according to Yamane (1967) formula for sample size determination as illustrated in the table below:

Strata	No. of small enterprises	No. of small enterprises	Percentage of No. of small enterprises
Zone seven (7)	310	93	19.38%
Zone Eight (8)	171	51	10.63%
5Total	481	144	30.01%

Source: Survey Data

Table 3.1: Sample Size Determination

In the study open and closed ended questionnaires were the main tools used to collect data from the 144 respondents.

To ensure reliability of the instruments, 10% of the instruments were piloted in the small enterprises outside the CBDs. This assisted in correcting some of the error in the instruments, thereby improving instrument reliability (Mugenda and Mugenda, 2003).

Opinions of the experts were also sought to make the instrument yield the expected results. The data collected were coded, tabulated and analyzed using descriptive analysis for measures of central tendency and inferential analysis method to draw conclusions concerning relationships and differences found in the research results. Data collection was conducted between the periods of May to July 2016.

RESULTS FINDINGS

Barriers (challenges)	Responses n=144		
	Low	Moderate	High
Business Dynamism n=144	54 (38%)	9 (6%)	81 (56%)
Implementation n=144	45 (31%)	50 (35%)	49 (34%)
Ethics and Policies n=144	22 (15%)	48 (33%)	74 (51%)

Table 3.2

The respondents were asked their opinion on the magnitude the ICT barriers had on present or future of ICT use in the enterprise. Each opinion was based on choice of three that is low moderate and high, with high being the most likely and strongest choice. As shown in table above, the most preferred challenge (barrier) for the present or future ICT use were ethics and policies (mean = 2.4) and ICT underlying technology (mean = 2.3). The least observed barrier was implementation which had the lowest mean of 2.0, Business Dynamism of Mean 2.2 and Security and management of Information resources with a mean of 2.2.

It was evidence that all barriers recorded a significant challenge to the small enterprises and it was in consonance with the research findings which, shows that less than half of small business owners had formal plans prior to going into business (Jeffrey et al 1977). Many engaged in formal planning so after starting their businesses, but one third could not recall ever having a formal business plan. Little research exists to determine the extent of planning in failing businesses. Based on this finding small enterprises may engage and adopt the use of ICT without making adequate planning to counter the barriers to ICT usage. Small enterprise ought to be exposed to relevant knowledge through training and policy documentation of various procedures and guiding rules of ICT adoption.

PERCEIVED OPPORTUNITIES OFFERED BY ICT

Business Use	No. of respondents
Document Processing n=144	132 (92%)
Accounting Processing n=144	92 (64%)
Inventory Control and sales n=144	88 (61%)
Communication n=144	143 (99%)

Table 3.3

The results indicated in table 6.8 above, shows that majority 99% of the small enterprises uses ICT for communication and 92% for document processing, while those using it for accounting processing and inventory control and sales were 64% and 61% respectively.

From the results findings above, areas of ICT usage in firms tends to cover all essential areas of business processes. This was evidence from the high percentages of respondents in each category, which had a cross board overwhelming majority all over 60%.

IV. CONCLUSION AND RECOMMENDATIONS

ICT plays a pivotal role in enhancing enterprise development, an entrepreneur require information about the market, legal and regulatory requirement which is availed by the use of ICT. Therefore, ICT is critical for the sustainability and expansion of small enterprise firms to achieve the national and global expectation as a business empire driver. In order to achieve success and reap maximum benefits from the adoption of ICT, there should be an intensive plan to manage and address these perceived challenges to mitigate them.

Even if SEs are aware of the benefits of ICT, they will only adopt ICT if they can overcome the barriers to its

adoption. The lack of affordable and accessible ICT infrastructure is the first obstacle that SEs needs to overcome, whether they are adopting basic ICT such as fixed line phones, Mobile phone or more advanced ICT such as internet access. Another notable obstacle is human capacity, users must understand how to use ICT and how it will change the way they do business and how to aligned and integrate it into business system.

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