SEEKING BUSINESS ENTERPRISES SUSTAINABILITY THROUGH INFORMATION COMMUNICATION TECHNOLOGY: STRATEGIES FOR LARGE PROFESSIONAL FIRMS IN KISUMU CITY – KENYA

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ABSTRACT

Firms seek to find new ways of conducting business at a cost effective manner. Information Communication Technology (ICT)is seen as the preferred choice for organizations in facilitating their business operations thus improving the speed, accuracy and efficiency of the entire business processes. This study explores the opportunities, challenges, and prospects available for large Professional Firms in Kisumu City - Kenya.ICT cement and leverage the potentials of business enterprises, the purpose of this study was to examine the extent to which ICT integration matches business requirements. The specific objectives were to find out the types of risks associated with ICT use, to assess the perceived benefits of ICT use in large professional businesses enterprises in Kisumu City andto explore the various factors, if any, militating against the effective utilization of ICTs for sustainability and profitability. The study is justified in that, since ICT is regarded as an enablerthat facilitates productivity and enhances quality of output, the recommendations from the findings can be replicated by similar firms.This study adopted the form of a case study design with a target population of all management employees of the three

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large professional services firms in Kisumu Central Business District, which was estimated at 150 employees.Stratified random sampling was used to select the respondents of45 as sample size, forming 30% of the target population. A self administered questionnaire was used to collect information from the respondents. From the findings, ICT associated risks were eminently noted.Therefore,poor risk management was found to be a constraint to the success of ICT integration into the business processes. Further, a lot more was needed to improve the ICT integration fit with business process.Firms should therefore have a full operational Risk assessment mechanism to identifying all the potential risk threats to the firm and mitigating them timely before disrupting the system.

Key words: ICT, Sustainability, Business processes, Integration.

Background of the Study

The current advancement of computing technology and improved telecommunication infrastructure has increased the rate of information dissemination and sharing in an organizational wide operation. Customers are considered to be fully aware of the products or service they require and coupled with the availability of information super highway, they do make decisions in time for the firms to either buy from or do business with each other. Business enterprises are confronted with the task of re-inventing and re-engineering the business processes to provide customers with this valued output from their existing systems. Firms must indeed adopt a high quality business process level in the market to provide customer with the required information and product or service conforming to their needs. The firms' main focus is to provide services or products which satisfy customer requirements. Ives and Learmonth (1984) and Khosrowpour (2000)contend that companies can use ICT as a competitive weapon to improve performance and create a new advantage over competitors. According to (Sabherwal and Chan 2001), organisations can use ICT to improve their products and change the play of competition. By exploiting these technologies, the company can better manage its relationships with its customers and/or suppliers enhance its products and change the rules of competition in its favor. IT infrastructure indeed enables firms to pursue their corporate goal of sustainable development and sustainable competitive advantage.

This increase in the power of computing technology witnessed over the last few decades, together with its decrease in cost acquisition, has convincingly improved computer use (Curtis and Cobham, 2005).Organizations are increasingly leaning towards options on which results are dependent on reliable, continuous and competitive ICT systems with futurist potential of growth.

Evidence provided indicates that service industries face severe challenges in terms of offering quality and matching services with the customer dynamic expectations. Balachandran (2004) asserts that elimination of the human element in the process, even partially, may improve the consistency. Electronic instruments, automated teller systems (ATMs), stores and achieve consistency in the quality of service. Even if these attempts succeed, customers may respond differently.

The service industry is considered to be a fastest growing segment of the economy worldwide. Balachandran (2004) reports that in the U.S, 75 percent to 80 percent of new jobs are in the service sector. The contribution of the service sector to the GNP has increased compared to the rest of the sectors. Although the benefits are evident, the cost of running an ICT infrastructure in a firm is evidently very difficult because of its unpredictability in quantifying the cost of operation. Mylonopoulos et al (2004) states that these side-effects may arise as a result of improper analysis and decision making or technological uncertainty. It is also evident that as much as ICT is offering leverage in enterprise operation, there exist overwhelming risks in the making especially for the developing countries like Kenya. The adoption and integration of IT infrastructure into the business empire, requires a detailed planning involving the organization wide involvement to ensure that ICT facilities remain objective, flexible, responsive and reliable for consistent utilization in the business. This study explores ICT use in the service sector in Kisumu, Kenya.

Statement of the problem

Firms seek to find new ways of conducting business at a cost effective manner. This leads to opportunities of adopting tools which can match this scenario. ICT should therefore become the preferred choice for organizations in facilitating their business operations thus improving the speed, accuracy and efficiency of the entire business process. However, new systems also bring along its challenges. ICT indeed has variedchallenges and risks which must be identified,

analyzed and mitigated.ICT and Business operation Strategy must be aligned to ensure that ICT facilities in use remain fit for the perceived purpose, is responsive, flexible and provides high levels of availability, reliable and open to innovation and changes taking place in the business environment. However, the link between the type of ICT strategies of large service firms and the performance of these enterprises still needs to be explored. The problem of this study is to find out the types of risks associated with use of ICT and the extent of ICT integration fit with business and to explore whether the ICT infrastructure put in place by these firms are improving their service delivery.

Objectives of the study

The objective of the study was to examine business enterprises sustainability through ICT strategies for large service firms in Kisumu City.The Specific objectives were;

i. To find out the types of risks associated with the use of ICT
ii. To establish the extent to which ICT integration matches business requirementof large service firms in Kisumu City

Review of Related Literature

Introduction

Businesses of all sizes and all markets has witnessed the benefits of leveraging their IT assets to create competitive advantage (Haag et al, 2008). Furthermore O'Brien (2003) notes that Information technology plays a major role in reengineering most business processes, the speed, information processing capabilities, and connectivity of computers and internet technologies can substantially increase the efficiency of business processes, as well as communications and collaboration among the people responsible for their operation and management (O'Brien, 2003). Laudon and Laudon (2006) indicates that information technology investments are more likely to improve firm performance if they are accompanied by complementary investments in new business processes, organizational structures and organizational learning that could unleash the potential of the new technology. Bostrom and Heinen, (1977) asserts that one cannot install new technology without considering the people who must work with it. Further Companies should identify a few core business processes to be redesigned and focus on those with the greatest potential payback (Daveport and Short, 1990).

ICT adoption leads to an improved performance, but still it changes the pattern, structure and ethics within an enterprise. Therefore its implementation will always cause disruption to staff and the entire organization wide operations. Schein (1992) concluded that three variables which are critical for this organization change are the degree to which the leaders can break from previous ways of working, the significance and comprehensiveness of the change and the extent to which the head of the organization is actively in the change process (Schein, 1992). Structures need to exist in such a way that an organization's information systems strategy is fully embedded within its business strategy. This call for mechanisms for integrating all functional areas of the business as well as the most senior management (Bocij et al, 2002).

ICT as Business Enabler

ICT is regarded as an enabler, which facilitates productivity and enhances quality of output. It also enhances most aspects of human activities in the information era. The power of ICTs transformation in human activities is in four stages: Automation, Rationalization, Re-engineering and Paradigm Shift (Whitten et al., 2004, p.12).

Parsons (1983) notes that ICT can accelerate the rate of appearance of substitute products, reduce the magnitude of existing barriers and create new barriers to entry. On the organizational level, the use of ICT can contribute in improving the implementation of activities of the value chain (e.g. design, production, marketing, etc..) and thus contribute to the success of generic strategies minimise costs and/or differentiation.

However, Bocij et al (2002) notes that organizations that make the most effective use of business information systems (BIS) are those that make BIS strategy an integral part of their overall business strategy. Sircar et al 2000; Brynjolfsson and Hitt, (1996) in their finding report that both IT and corporate investments have a strong positive relationship with sales, assets and equity, but not with net income. Spending on IS staff and staff training is positively correlated with firm performance, even more so than computer capital. Further in their conclusion, the value of IS staff and staff training was also quite apparent and exceeds that of computer capital. This indicates that that the effective use of IT is far more important that merely spending on IT.

Recent research on business information technology investments indicates that firms that support their technology investments with investments in complementary assets, such as new business processes, management behavior, organizational culture or training, receive superior returns, whereas those firms failing to make these complementary investments receive less or no returns

on their information technology Investments (Bryjolfsson, 2003; Bryjolfsson and Hitt, 2000; Dare and Kauffman, 2000; Laudon, 1974; Marchand, 2004).

ICT Strategy

Adopting ICT is a difficult task for companies of all sizes, whether they are in developed or developing countries. In fact, a lot of management literature focuses on the organizational changes that firms must go through in order to effectively adopt ICT because they change the way firms do business (UNDP, 2007). Organizations can best utilize the benefits from changing and improving modern information technology by designing a corporate information systems strategy (Curtis and cobham, 2008). Some of the strategies firms could employ include:

Accessibility of Information: The more information a business acquires, the more difficult it becomes to make decisions. Hence, the amount of information people must understand to make good decisions is growing exponentially (Haag et al. 2008). Continuing developments in information technology together with decreasing costs, have enabled business to exploit new opportunities to change the nature of competition (Porter, 1985). Firms must therefore make relevant information accessible to target stakeholders

Speed of operation of ICT Systems: Information technology efforts in the past were aimed at increasing operational efficiency, the advent and proliferation of network-based computing has enabled organizations to build systems with which all sorts of communities can interact (haag et al, 2008).

Accuracy of the ICT Systems: Information Technology determines the technological infrastructure of the organization. It ensures the most appropriate technologies and the best standards are used in terms of cost, efficiency and supporting the needs of the business users and integration with customers and other partners (Bocij et al, 2002).If a company emphasized strategic business use of Information Technology, its management would view IT as a major competitive differentiator. It would then devise business strategies that would use IT to develop products, services and capabilities that would give the company major advantages in the markets in which it competes (O'Brien, 2003).

Organizational ICT culture: The extent to which the business intelligence flourishes in an organization depends in large part on the organization's culture (Haag et al, 2008)

Training: Schultz (1975) asserts that highly-educated workers are likely to be best-equipped to respond to the new product development opportunities made possible by ICTs. In production and

service delivery areas, high-skilled workers can be expected to adapt more quickly to new forms of work organization than low skilled workers. In respect of investments in ICT-related training, all else being equal, less such training will be necessary in firms with pre-existing high levels of skill.

ICT Risk Mitigation: Brynjolfsson and Hitt (2003) provided evidence that the returns to ICT investments usually do not occur immediately, but rather with a significant time lag. They found that computers make a positive and significant contribution to output growth at the firm level, but the implied returns increase if longer time differences are taken into account, which suggests that time-intensive complementary investments into organizational restructuring have to be undertaken.

Tingling and Parent (2004) suggested that ICT investment is fundamentally different from other investment types. This is due to problems associated with identifying and quantifying costs and benefits including intangibles. However, the difficulty with this view is that ICT may not be subjected to the rigorous evaluations or appraisals associated with other capital investments, and as a result the ICT's impact may remain unknown and its potential unrealized (Schultz, 2007).

Many firms see IT as not being part of the core business function and evade the use of technology as it provides a distraction to delivery of the business products and services (Dagdilelis, 2003). Porter (2000) also argued that authentication of identity is the main issue, and people need to be satisfied about who they are dealing with. They need to know that their messages have not been intercepted or corrupted on the way, and most importantly they are legally non-repudiable – meaning that the other party cannot walk away from it in a court of Law.

Many information technology investments flounder and do not increase productivity. Research on project implementation failures demonstrates that the most common reason for failures of large projects to reach their objectives is not the failure of the technology, but organizational and political resistance to change.Laudon and Laudon (2006) posited that managers have the opportunity to create an ethical business environment that is within the law, and it is their responsibility to do so. Doing the right thing with information systems in the long term will always lead to stronger, more reliable organization project and before a projects is implemented it has quantify in terms of its return on investment or its viability.

METHODOLOGY OF THE STUDY

This study adopted the form of a case study design. According to Kothari (2009) the case study method deals with issues in depth rather that breath and Oso and Onen (2009) asserts that it is an intensive, descriptive and holistic analysis of a single entity: the bounded case. It places emphasis on the full analysis of a limited number of events or conditions and their interrelations. The object of the case study method is to locate the factors of the given unit as an integrated loyalty. This design was preferred because it implies to the three large professional service firms of Kisumu city central business districts as a particular case. These large professional service firms were service firms in Kisumu central Business Districts (CBDs) employing more than ten (10) employees according to the records of (Municipal Council of Kisumu (MCK) local authority integrated financial operations management systems, 2011) and purely offering services to the residents of Kisumu city and its environs. The study targeted all management employees of the three large professional services firms in Kisumu city – (CBDs), these firms have an estimate of 150 employees which formed the target population and those who were available at the time of sampling were accessible population. The management staffs were selected for the study because they do posses an in depth knowledge on the application of ICT and the business processes in there respective firms, therefore deemed vital for the information required for the study.

The study adopted stratified sampling techniques to estimate the actual samples to be used in this research survey and Simple random technique was applied to arrive at the final sample population of 45 forming 30% of the target population. This was further illustrated in the table below;

Table 3: Sample size

Firm	Management Staffs	Sample for the study	Percentage of the sample
A	46	14	31%
B	35	11	24%

C	69	21	47%
Total	**150**	**45**	**100%**

Both primary and secondary data were used to collect data. For primary data, questionnaires and interview schedules were used to collect information from the respondents both structured and unstructured were constructed. It is important to note that faulty interview guides can lead to misinformation for this reason; a pilot study was carried out on five respondents from the target population by distributing five instruments for their responses. The process was repeated after two weeks to ascertain the variance in response this test-retest process to enable the researcher to determine the co-efficient of variation to confirm how reliable the instrument would be. Content validity will also be established through consultations with the fellow research colleagues. Thedata collected were coded in table for analysis. Excel spread sheet computer package were used to analyze the data. Frequency distribution were also be used and the results presented in table charts and graphs.

RESULTS AND DISCUSION

4.1 Risks associated with the use of ICT in a firm

Risks	Strongly Agree	Agree	Disagree	Strongly Disagree	
Poor user Interface	5	7	22	11	Calculated value =23.40 Table value (Critical) =23.34
Lack of user training/Human error	4	6	15	21	
Poor fit between system and organization	10	13	22	0	
Low Return on investment	5	8	15	17	
Low Resistance to change	7	9	13	16	

Source: Research Data (2013)

The study sought to examine the perceived risks of ICT use in an organization, and the findings from the respondents revealed that there exist a significant association between the ICT risks which included user training/Human error, return on investment, poor fit between system and resistance to change. The chi square calculated value stood at 23.40 and the table value was 23.34, thus the result reflects no positive correlation between the perceived risk and the use of ICT. Frenzel and Frenzel (2004) assert that rapid changing business conditions can create increased risks for a firm. Managers must mitigate the risks by increasing strategies flexibility. One way to maintain flexibility is to focus more intently on strategic alternatives because, as knowledge about the future emerges overtime, evaluations of earlier alternative emerge. Further,Bresnahan et al (2002) confirmed that organizational investments in assets which complementary to Information Communication Technologies may contribute more to raising the relative demand for skilled labour than the diffusion of Information Communication Technologies themselves.

Further incorporation of new ICT based information systems into the business mainstream require changes in individual employees' routine functions that painfully involve the change process and require retraining and more efforts that may or may not be rewarded by the firm. This will definitely meet a lot of resistance from the employees because it will involve changes on organizational structure, culture, business processes and strategies.

ICT use risks indeed were a known fact amongst the respondents this was evident from the responses received from almost all the indicated risks. Therefore poor risk management was

perceived to be a major constraint to the success of most ICT integration into the business processes. Firms should have a full operational risk assessment mechanism to identifying all the potential risk threats to the firm and mitigating them timely before disrupting the system.Madden andWeißbrod, (2008) affirmed that if we apply ICT well, the rewards could be enormous. It could help to enhance creativity and innovation to solve our problems, build communities, give more people access to goods and services and use precious resources much more efficiently.

CONCLUSION AND RECOMMENDATIONS

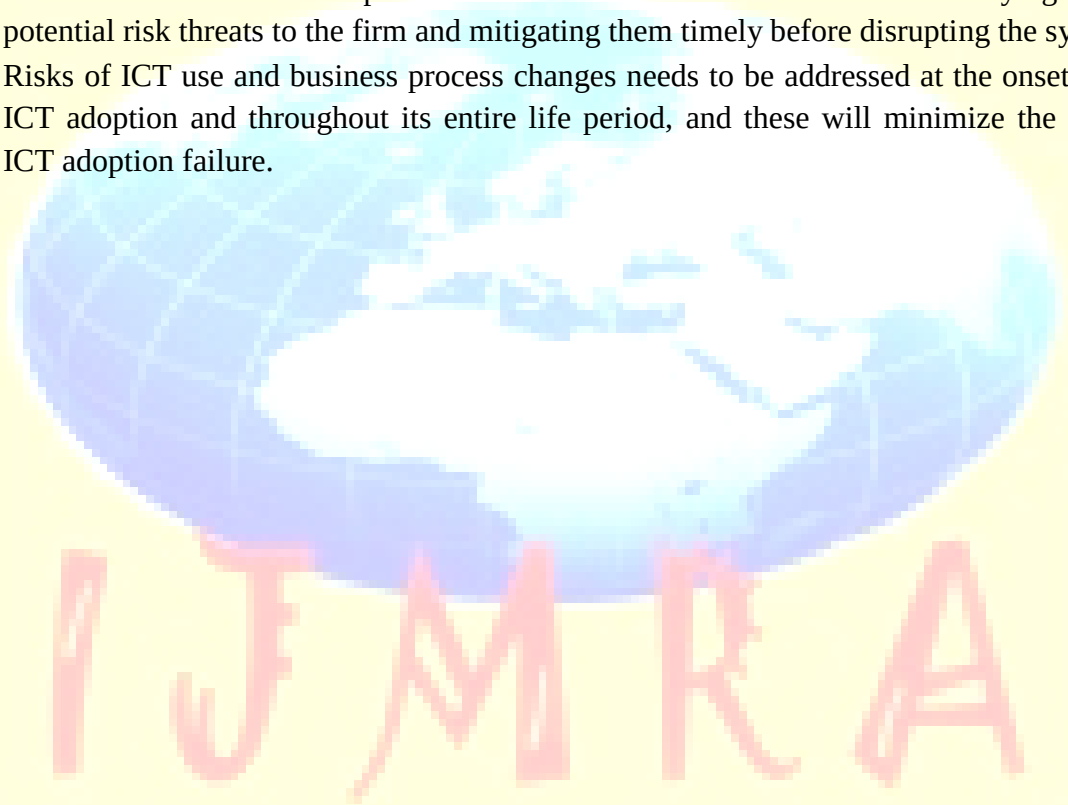
Conclusion

From the findings of the study the result reflects positive correlation between the perceived risk and the use of ICT. ICT risks were indeed a known fact amongst the respondents this was evident from the responses received from almost all the indicated risks.

Recommendation

The study therefore recommended that;

- Firms should have a full operational risk assessment mechanism to identifying all the potential risk threats to the firm and mitigating them timely before disrupting the system.
- Risks of ICT use and business process changes needs to be addressed at the onset of the ICT adoption and throughout its entire life period, and these will minimize the risk of ICT adoption failure.



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