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Effective Information Technology Communication: A Panacea to Business Success

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Abstract: *Technological changes can have profound impact on an organization. So, information needs to be handled by recognizing (and managing) complexity, focus on adoption, deliver tangible and visible benefits, prioritizing according to business needs, mitigate risks and communicate extensively. Effective information technology management is concerned with the efficiency, economy and emotive of an organization's information resources (communication, use, storage and retrieval). It is concerned with getting the best value for up-to-date and accurate information at an economic cost. In this context, this paper will focus on presenting brief review of related literature, using technology to maximize business efficiency, why information technology management is necessary. In conclusion, provision relevant and timely needed information pertaining to, the execution of business activities; is key to managers to making solid business decisions which leads to successful business growth.*

Keywords: *Business Success, Information, Information Technology Communication*

INTRODUCTION

Since the early years of the 20th century, the world has been experiencing a revolution known as information technology. Some consider it to be the most fascinating development since the industrial revolution around the mid-18th Century (Tom, 1991). This revolution is changing our daily lives at home and at work, in shops and banks, in schools, colleges and universities. It is changing the way people think, communicate and behave. Today, the world has become a global village with the internet, mobile phones and satellite networks shrinking time and space, bringing together computers and communications; resulting in new ways of communication, processing, storing and distributing enormous amounts of information (UNDP, 2001). Advancement in chip, satellite, radio, and optical fiber technology have enabled millions of people around the world to connect electronically regardless of national or international boundaries. This explosion in connectivity is the latest and the most important wave in the information revolution (Evans & Wurster, 1997).

Information Technology (IT) is clearly considered as a key growth area in this century, specifically, in a dynamic and highly competitive business environment which requires utilizing advanced IT tools to improve efficiency, cost effectiveness, and deliver high quality products and services to customers (Allen & Morton, 2004). IT is also considered as a tool of marketing, contacting customers and looking for possible customers, as well as presenting IT services as distinguished potential services for customers (UNDP, 2001; Werthner & Klein, 2005).

Organisations are increasingly using information technology to develop solutions to business problems, to improve both the efficiency and effectiveness of the decision-making process, to enhance productivity and service quality, to achieve dynamic stability, and compete for new markets (Attewell& Rule, 1984). According to Cerere (1993) organizations have always sought and adopted technologies that enhance efforts of their manpower in production and management. Indeed, he noted that although it has evolved over a considerable period of time, information technology has emerged as an important tool in management of organizational operations.

Information and communications technology (ICT) has revolutionized the way people live, learn, work and interact. Tambe and Hitt (2014) stated that ICT is a mechanism used by companies to look for innovative ways of operating and relay information to achieve economic gains. According to Abou-Moghli, Abdallahand Ayed (2012), information technology is a multimedia technologies comprising of internet, software, hardware, computer, television, telephone, email, satellite, blogs, and internetworking projects. Kushwaha (2011) defines ICT as technologies and tools that people use to share, distribute, and gather information to communicate with one another, one on one, or in groups, through the use of computers and interconnected networks.

Loukis, Sapounas and Milionis (2007) stated that organizations are investing more on information and communication technologies (ICT) with the aim of increasing performance. Gartner (2014) stated that organizations invest increasingly in information systems (IS) so as to increase their efficiency, performance and quality. Gerald and Anderson (2012) assert that organizations that use supply chain relationship through information technology have been able to increase performance through integration. According to Schroeder, Pennington-Gray and Donohoe (2013), logistics is the movement of goods from one point to another in a seamless manner while minimizing or doing away with inefficiencies whereas, logistics performance is the process of satisfying customer needs, reducing transit time, minimizing of reducing costs, product/service differentiation and managing customer or supplier relationships. The purpose of this study therefore is to examine the impact of information technology on business success of organizations.

LITERATURE REVIEW

Concept of Information Technology

Listyarini, Ratnaningsih and Yuliana (2016) defined ICT as any use of technology to access, gather, manipulate and present meaningful information at the end. Kioko, Malowe, Martkin and Moody (2015) noted that ICT is a technology used to support information gathering, processing, tabulation and presentation in a meaningful form. ICT is used in different areas and in all these, the common factor is its acceptance as a technology used to facilitate movement of information through use of variety electronically aided communications for ease of access and decision making (Koltay, 2016).

Information technology refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies. According to Daft (1997) IT can be defined as the hardware, software, telecommunications, database management, and other information-processing technologies used to store, process, and deliver information. Information technology is commonly used to assist managers with direct control over business functions, personnel and other resources. As managers oversee resource coordination and allocation, it can be difficult to coordinate business functions across various projects. Information technology is one of the key innovations that are frequently implemented to assist in this process (Hobday, 2000). Peansupap and Walker (2005) maintain that IT is often implemented as it is believed to facilitate communication, improve integration, enhance productivity and service delivery (Bjork, 1999).

As organisations grow and change, they depend more and more on information technology for their survival (Feeny & Willcocks, 1998). Companies today implement and use information technology to find solutions to business problems, to improve management decision-making, enhance productivity and quality, and compete for new markets in our global and aggressive business environment (Porter & Millar, 1985). Moreover, IT can be seen as a powerful force that opens exciting opportunities for organisations to achieve their missions and goals in an effective way. Therefore, leaders in organisations must obtain an overall appreciation of the potential of IT and link the acquisition and utilization of IT to the organizational mission (Hacker & Saxton, 2007).

Basic information technologies can be used to store, retrieve, organize, transmit and algorithmically transform any type of information that can be digitized into numbers, text, video, music, speech and programs to name a few (Brynjolfsson & Hitt, 2000). Frenzel (2009) observed that information technology revolution has created innumerable opportunities as well as some challenges for numerous organizations; therefore, managers must learn to adapt to and maximize advantages offered by information technology in this information-based society while guarding against the threats associated with it. Technology has levelled the playing field (Scumaci, 2010), a world without mobile phones and internet is unimaginable (Schubert & Leimstoll, 2007) as information technology has brought buyers and sellers closer together, thereby creating intimacy characterized in earlier eras (Levy & Powell, 1998).

IT can improve efficiency and increase productivity in different ways leading to lower transaction cost, better resource allocation and technical improvements (Olusola & Oluwaseun, 2013). To succeed in this evolving environment, mangers must be proficient in the adoption of new practices and improved techniques. IT saves money and time spent on repetitive tasks in an organization (Chinomona, 2013). Information technology has altered management practices and the nature of work in industrialized nations (Lohr, 2007). Proper dissemination of information via technology empowers governments, institutions and individuals who sufficiently integrate it into their organizational structure. These days, the flow of information across the globe as little restriction, with access to internet, individuals can interrogate gigantic databases on super-information highways which information technology opens up. Woherem (2000) affirms that through internet connectivity business transactions can be carried out around the world without intermediaries or physical acquaintance with the customer. The adoption of computers in organizations has gone through four distinct phases (Scheimann, 2003): Large central mainframes, personal computers and distributed data processing, the networking of microcomputers and the networking of networks.

Information Technology and Business Success

Usually, performance is a measure of how well a process achieves its purpose. Moulin (2003) defines an organization's performance as "how well the organization is managed" and "the value the organization delivers for customers and other stakeholders. ICT is having a significant impact on the operations of business enterprises and is claimed to be essential for the survival and growth of nations' economies (Stephen, 2007).

Dalrymple (2004) lists profitability, financial management, productivity, investment, growth, customer service, supplier management, innovation, people management and people satisfaction as some of performance measures of an organization. As is the case with all technologies, small businesses are slower than large ones to adopt new ICTs (OECD, 2004). Information and Communication Technology influences flexibility of the organizations and companies, use of ICT increase the tendency of companies to perform better in market due to easier differentiation of products and services. Ollo-Lopez and Aramendia-Muneta (2012) stated that ICT adoption seems to have a positive effect on productivity, directly as well as indirectly, depending on the sectors and to have great potential to support a sustainable development. Furthermore, the use of e-mail, e-commerce, and social media network has significantly cut down on the physical transportation involved in sending mail, banking, advertising and buying goods (Manochehri, Al-Esmail & Ashrafi, 2012).

According to Brynjolfsson and Hitt (2000), ICTs can enhance enterprise performance through indirect cost savings such as labour costs and increased labour productivity, and direct cost reduction of firm's input such as information costs. On top of these short-run impacts of ICT adoption in the production process, the use of ICTs in the transaction process can foster input and output market expansion. However, in the long run, ICT may have an even bigger impact as it can completely restructure the production process and transaction methods, increase flexibility and improve outputs. ICT is clearly considered as a key growth area in this century, specifically, in a dynamic business and highly competition environment which requires utilizing advanced ICT to improve efficiency and cost effectiveness, and to present high quality products and services to their customers (Allen and Morton, 2004). UNDP, (2001) claimed that ICT is considered as a tool of marketing and contacting customers and looking for possible customers, as well as presenting ICT services is distinguished as a potential service for customers (Werthner, and Klein, 2005).

Adeosun (2009) stated that the use of ICT enables strategic management, communication, collaboration, information access, decision making, data management and knowledge management in organizations. ICT causes fundamental changes in the nature and application of technology in businesses. ICT can provide powerful strategic and tactical tools for organizations, which, if properly applied and used, could bring great advantages in promoting and strengthening their competitiveness (Buhalis, 2004). Hengst and Sol (2001), state that ICT enables organizations to decrease costs and increase capabilities and thus assist to shape inter-organizational coordination. The use of ICT can assist to lower coordination cost and increase outsourcing in organizations. ICT is used to exchange information and it provides a medium for learning. Ramsey (2003) noted that organizations generally stand to gain from ICT in areas such as reduced transaction costs, information gathering and dissemination, inventory control, and quality control.

Information and communication technology plays a key role in market access and is the main core of any marketing system. Market access in developing countries is a major challenge to small businesses due to market imperfections that can be attributed to lack of market

information, lack of linkages between the actors in the supply chain, distortions or absence of input and output markets, high transaction cost and high presence of trade intermediaries. Different strategies exist for improving market access of which the use of ICT is one. Strategies that enhance market access greatly impacts on the performance of small enterprises (Shepherd, 2007).

ICT can significantly impact the market –oriented dimensions of products and services (Ritchie &Bridley, 2005). Market –oriented ICT include websites which display the goods, services and information of a firm on the world wide-web (WWW). It can also integrate the e-commerce functionality, such as offering the ability to place orders. The www is a powerful platform for expanding and reaching new markets for SMEs while the Internet is critical in enhancing a firm's market reach and operational efficiency. ICT offers SMEs flexibility in trading by enabling 24 hours of trading, borderless market space and leverage SMEs to compete against larger enterprises on the same platform. In addition, ICT facilitates remote access to knowledge, suppliers and a borderless environment, offering SMEs the ability to deliver products and services on a different platform that is easily accessible. Information and Communication Technology can be used to reduce barriers of entry into different market segments exposing SMEs to a wider customer base (Lloyd & Kroeze, 2008).

Mutula and Van Brakel (2006) noted that ICTs, especially the internet, have a significant impact on the operations of SMEs by facilitating their access to global markets, enabling them to sell to international customers, and to compete favourably with large corporations. Strategic use of ICTs is viewed as near solutions to firm's problems. ICT has the potential to reduce the impacts of distance, reduce transaction costs, be used in information gathering and dissemination, inventory control, and quality control. Information and Communication Technology can enable SMEs to participate in the regional and international markets which are strategic for competitiveness, growth and further development (Ramsey, Ibbotson, Bell & Gray, 2003).

Information and Communication Technology play an important role in enabling innovation. Gago and Rubalcaba (2007) find that businesses which invest in ICT, particularly those which regard their investment as very important, are significantly more likely to engage in good and service innovation. Van Leeuwen (2008) linked ICT use and investment with firm performance and find that e-commerce and broadband use affect productivity significantly through their effect on innovation output. Polder (2009) finds that ICT investment is important for all types of innovation in services, while it plays a limited role in manufacturing, being only marginally significant for organizational innovation.

ICT also has the ability to transform global and local markets to become more efficient. Electronically mediated markets greatly impacts on the cost, speed and transparency of market-based transactions. As a result lower transaction cost and increased reach result in up to 15% lower costs to consumers, and up to 20% lower costs in business procurement. Business-to-business (B2B) net-based transactions are transforming supply chains across the globe, leading to the rise of new channels or net-based intermediaries, and enabling SMEs to pool resources and auction or collectively supply large multinationals Market prices act as coordinating signals for producers and consumers, where sources of information are limited basic ICT could play a major role in creating efficient markets, improving producer practices and speeding innovation, through the provision of information on market prices (Hanna, 2010).

Information and communication technology causes fast accessibility to the market, increases selection power, improves communication, facilitates identification of markets,

improves marketing and reduces business transaction costs. From a Survey conducted in Kenya and Tanzania (Matambalya & Wolf, 2007); SMEs that used different forms of ICT rated their effects mostly positive. On top were telephone and computer applications that are assumed by 88% and 76% of users to considerably increase management efficiency and competitiveness respectively. Mobile phones are considered to contribute significantly to regional market expansion by most enterprises followed by fixed phones and faxes. ICT has a proven role in enabling SMEs to increase their productivity and access information and markets, but remain unaffordable (OECD, 2004).

Challenges facing Information Technology in Business

Despite the various benefits obtainable from the use of ICT in business operations as enumerated above, business organisations encounter a number of problems when deploying such systems. Nyaga (2014) said that ICT is seen as a requirement for development of any nation but when the developing countries is it put side by side with the advanced countries, a wide gap exist in the usage of ICT and its associated challenges between these two groups. This space is referred to as "the Digital Divide" and can be seen within a country and between countries. In developing countries, ICT infrastructure is frail leading to limited internet access. Nigeria is a developing nation and so most if not all the challenges identified by Nyaga (2014) are evident in the country.

Oliveira (1989) and Gulati (2008) also listed some of the challenges being faced in the use of ICT to include the insufficiency of monetary resources(in the developing world as the available money will be expended mostly on basic needs like food, house and roads), the cost of ICT hardware, the salary of the ICT professionals, software related costs, cost of access to the internet, poor substructure in undeveloped countries like erratic electricity supply compounded this problem, maintenance cost, burglary, fear by the administration and obsolete computers.

Parida, Johansson, Ylinenpää and Braunerhjelm (2010) opined that there are quite a lot of issues that may disallow industries from deploying and making the best use of ICT in their dealings. Factors influencing the deployment and use of ICT in businesses can significantly vary when comparing diverse sectors of the economy, nations and groups. These are unsuitable ICT for the kind of business a firm is doing, inadequate ICT skills or capability inside the firms, absence of consistent ICT associated applications, price factors, concerns with right to use to ICT, absence of trust, and legal reservations.

Empirical Review

A study by Ayatse (2012) investigated the impact of information communication technology (ICT) on corporate performance. The result of the study show that ICT has positively contributed to cooperated performance. Pirzada and Ahmed (2013) study the effect of new technology on firm business objective. The result of the study indicate that new technology have a strong relationship with firm business objective. Hawajreh and Sharabati (2012) investigated the impact of information technology on knowledge management practice in Jordan. The result of the study shows that there is positive and significant relationship between information technology and knowledge management practice. (Onu Ibrahim & Segun, 2015) examined the effect of information communication technology investment on organizational productivity and growth of small and medium scale enterprises in developing countries. The result of the study shows that positive and significant effect exists between independent variable and dependent variable of the study.

Hailu (2014) examined the impact of information system (IS) on organizational performance with reference to ethio-telecom Southern region, Hawassa, Ethiopia. The result of

the study show that top management commitment facilities, skilled man power, information ethic, quality system, user perception, significantly affect organizational performance. Another similar empirical study showed that information and communication technology have significant positive effect in innovation activities of companies Penalba (2015). Similar study by Alabar and Agema (2014) indicated that the information and communication technology have significant influence on customer satisfaction. Sepehrdoust and Khodaee (2013) found positive and significant effect between ICT and employment selected of Selected OIC Countries. Olise, Anigbogu, Edoko and Okoli (2014) investigated the determinant of ICT adoption for Improve SMEs performance in Anambra state Nigeria. The result indicated that there is positive and significant relationship between dimension and SMEs performance. Binuya and Aregbehola (2004) findings of the study indicated that the use of ICT increased return on capital employed as well as return on asset of south African banking industry and the study discover more of the contribution come from ICT cost efficiency.

CONCLUSION

Effective information technology management enables great efficiency of organization and business activities for successful growth. Effectively managing information technology also makes it easy to keep information up to date. It has benefits that will assist the organization make money and create the results customers desired. Providing relevant and timely needed information pertaining to, the execution of business activities; is key to managers to making solid business decisions which leads to successful business growth.

RECOMMENDATIONS

i. Courtland & John (2013) assert that improved information flow increases report accuracy and helps companies in the supply chain manage inventory. All these efforts are geared towards business success and growth. Therefore the researchers recommend that organizations and businesses should endeavour to create effective information management system to ensure smooth running of their activities.

ii. Organizations should look into areas that could give a business advantage to channel different types of competency in the new ere of digitalization, which brings new types of data management.

iii. Advances in computer-based information Technology in recent years have led to a wide variety of systems that managers are now using to make and implement decisions. And the difference between success and failure is the extent to which managers can use the system to increase their effectiveness within their organizations (Alter, 1976). For any business organization to succeed in the mist of its business competitors, Information Technology is the key factor. Managers of businesses and organizations should key into managing new technologies as technology advances in age.

REFERENCES

Abou-Moghli, A., A., Abdallah, G., M., & Ayed, A. M. (2012). Impact of Innovation on Realizing Competitive Advantage in Banking Sector in Jordan. *American Academic & Scholarly Research Journal,* 4 (5), 1-9.

Adeosun O. Adeosun, T. & Adetunde, I. (2009).Strategic Application of Information and Communication Technology for Effective Service Delivery In Banking Industry. *Journal of Social Sciences,* 47-51.

Alabar, M. & Agema, F. (2014). *Knowledge Management: Facilitator for SMEs competitiveness in Nigeria.* UKAIS Conference, St Anne's College, Oxford, United Kingdom.

Allen, T., & Morton, M., (2004). *Information Technology and the Corporation of the 1990s*. New York: Oxford University Press.

Attewell, P., & Rule, J. (1984). Computing and organizations: What we know and what we don't know. *Communication of the ACM* 27(12), 1184-1192.

Ayatse, F. A. (2012). Impact of information communication technology (Ict) on corporate performance: A case study of cement manufacturing firms in Nigeria. *Global Advanced Research Journal of Management and Business Studies*, 1(18), 259-63.

Binuya, L. & Aregbehola, M. Y. (2004). *Introduction to Research Methods and Statistics.* Kano: Debis Co press and Publishing.

Bjork, BC. (1999). Information technology in construction: domain definition and research issues. . *International Journal of Computer Integrated Design and Construction, SETO, London,* (5), 3- 16

Brynjolffson E. &Hitt L. (1996). Paradox lost? Firm-level Evidence on the Returns to Information Systems Spending. *Management Science,* 541-558.

Brynjolfsson, E. & Hitt, L. (2000). Beyond computation: Information technology, organizational transformation and business performance. *The Journal of Economic Perspectives*, *14*(4), 23-48

Buhalis D. (2004). eAirlines: Strategic and Tactical Use Of ICT In The Airline Industry. *Information and Management,* 805-825.

Cerere SJ. (1993). *Computer applications to office management;* Nairobi: Kenya Institute of Administration

Chinomona, R. (2013). The fostering role of information technology on SMEs? strategic purchasing, logistics integration and business performance. *Southern African Business Review*, *17*(1), 76-97

Daft, R. L. (1997). *Management.* Orlando, FL: The Dryden Press.

Dalrymple, J. F. (2004). Performance measurement for SME growth: A business profile benchmarking approach, Second World Conference on POM and 15th Annual POM Conference, Cancun, Mexico.

Evans, P. &Wurster, T. (2007). Strategy and the New Economics of Information. *Harvard Business Review*, 70-82.

Feeny, D. F., & Willcocks, L. P. (1998). Core IS capabilities for exploiting information technology. *Sloan Management Review*, Spring, 39(3), 9-21.

Gago D. &Rubalcaba, L. (2007). Innovation And ICT Service Firms: Towards a multidimensional approach for impact assessment. *Journal of Evolutionary Economics*, 25-44

Gartner, W. (2014).Worldwide IT Spending on Pace to Reach $3.8 trillion in 2014. Gartner Press Release. Retrieved on 22nd January from http://www.gartner.com/newsroom/id/2643919.

Gerald, V.,& Anderson, D. L. (2012).*Management information system: Solving business problems with information technology, (2nded).* New York, New York: McGraw-Hill Inc.

Hacker, D., & Saxton, G.D. (2007). The strategic use of information technology by nonprofit organization: Increasing capacity and untapped potential. *Public Administration Review*, 67(3), 474-487.

Hailu, H. (2014). The Great Transformer: The Impact of Internet on Economic Growth and Prosperity.

Hanna, N. K. (2010). *Enabling Enterprise Transformation. Business and Grassroots Innovation for The Knowledge Economy*. New York: Springer.

Hawajreh, K. M. & Sharabati, A. (2012). The impact of information technology on knowledge management practices. *International Journal of Business, Humanities and Technology*, 2(7), 32- 46.

Hobday, M. (2000). The project-based organisation: an ideal form for managing complex products and systems? *Research Policy*, 29 (7-8), 871-893

Kioko, S. N., Marlowe, J., Matkin, D. S. T., & Moody, M. (2015). Why public financial management matters. *Journal of Public Administration Research and Theory*, 21(1), 113–124.

Koltay, T. (2016). Library and information science and the digital humanities. *Journal of Documentation*, 72(4), 781–792.

Kushwaha, G. S. (2011). Competitive Advantage through Information and Communication Technology (ICT) Enabled Supply Chain Management Practices. *International Journal of Enterprise Computing and Business Systems*, 1(2), 1-13.

Levy, M. & Powell, P. (1998). SME flexibility and the role of information systems. *Small Business Economics*, *11*(2), 183-196

Listyarini, S., Ratnaningsih, D. J., & Yuliana, E. (2010). The use of information and communication technology in universities Terbuka learning: Alumni and stakeholder perception. *Asian Association of Open Universities Journal* 2 (5), 89-102.

Loukis, E., Sapounas, I., & Milionis, A. (2007).The effect of information system investment and management on manufacturing business performance in Greece. A preliminary econometric study, in the proceedings of the 4th International Conference in Applied Economics (QASS), Samos, Greece July 12-14.

Manochehri, N. Al-Esmail R. & Ashrafi, R. (2012). Examining the Impacts of Information and Communication Technologies on Enterprise practices. *The Electronic Journal of Information Systems in Developing Countries,* 234-138.

Matambalya, F. and Wolf, S. (2002). The Role of ICT For The Performance of SMEs in East Africa.ZEF Discussion Papers on Development Policy, 42

Mutula S.M. & van Brakel, P. (2006). E-readiness of SMEs in the ICT sector in Botswana with respect to information access. *The Electronic Library*, 402-17.

Nyaga, N.S. (2014). Challenges Facing Effective Information And Communications Technology Implementation In Selected Public Secondary Schools In Nakuru North District Nakuru County, thesis MBA. Kenya: Kenyatta University.

OECD. (2004). Tthe Economic Impact of ICT Measurement, Evidence and Implication Organization for Economic Co-operation and Development. Paris: OECD.

Olise, M. C., Anigbogu, T. U., Edoko, T. D. & Okoli, M. I. (2014). Determinants of ICT adoption for improved SME's performance in Anambra State, Nigeria. *American International Journal of Contemporary Research,* 4(7), 163-76.

Ollo-Lopez A. &Aramendia-Muneta, M.E. (2012). ICT Impact on Competitiveness, Innovation and Environment. *Telematics and Informatics*, 204-210.

Olusola, A., & Oluwaseun, Y. (2013). An Appraisal of the Impact of Information Technology (IT) on Nigeria Small and Medium Enterprises (SMEs) Performance. *International Journal of Academic Research in Management (IJARM),* 2(4), 140-152.

Onu, C. A., Ibrahim, O. O. & Segun, F. K. (2015). Effect of information technology investment on organizational productivity and growth of small and medium scale enterprises in developing countries. *Business and Economics Journal,* 6(3), 1.

Parida, V., Johansson, J., Ylinenpää, H., & Braunerhjelm, P. (2010). Barriers to information and communcation technology adoption in small firms. Working Papers Series from Swedish Entrepreneurship Forum.

Peansupap, V. & Walker, D. H. T. (2005) Factors affecting ICT diffusion: a case study of three large Australian construction contractors. *Engineering Construction and Architectural Management,* 12 (1), 21-37

Penalba, U. (2015). Promoting learning transfer developing sme marketing knowledge in the Dnipropetrovsk Oblast, Ukraine. *Quality Management and Business Excellence*, 20(4), 423-43.

Pirzada, K. & Ahmed, M. (2013). Effect of new technology on firms business objectives: A case study of pak-suzuki company. *International Journal of Business Administration*, 4(3), 95-101.

Porter, M. E., & Millar, V. E. (1985). How information gives you competitive advantage. *Harvard Business Review*, July-August, 63(4), 149-160.

Ramsey E. Ibbotson, P. Bell, J. & Gray, B. (2003). E-opportunities of service sector SMEs: an Irish cross- border study. *Journal of Small Business and Enterprise Development*, 250-64.

Ritchie, B. &Bridley, C. (2005). ICT adoption by SMEs: Implications for relationships and management. New Technology, Work and Employment.

Schroeder, A., Pennington-Gray, L., & Donohoe, S. (2013). Using social media in times of crisis. *Journal of Travel and Tourism Marketing*, 30(1), 126-143

Schubert, P. & Leimstoll, U. (2007). Importance and use of information technology in small and medium-sized companies. *Electronic Markets*, *17*(1), 39-54

Sepehrdoust, H. & Khodaee, H. (2013). The impact of information and communication technology on employment of selected OIC countries. *African Journal of Business Management*, 7(39), 4149-54.

Tambe, P., &. Hitt, L. M. (2014). Job Hopping, Information Technology Spillovers, and Productivity Growth. *Management Science*, 60(2), 338-355.

Tom, P. L. (1991). *Managing information as a corporate resource*. New York, NY: Harper Collins Publishers.

UNDP (2001). GEO-3: Global environment Outlook; Chapter 2; Socio-economic background; Global overview.

Werthner, H. & Klein, S. (2005). ICT-enabled Innovation in Travel and Tourism. Innovation and Product Development in Tourism.

Woherem, E.R. (2000). *Information technology in the Nigerian banking industry*. Ibadan: Spectrum Books