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Utilization of Information and Communication Technology by Entrepreneurs to Boost Production in South-East, Nigeria

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Abstract: The study investigated the utilization of information and communication technology by entrepreneurs to boost production in South-East, Nigeria. Three research questions were posed to determine the extent to which ICT is utilized to enhance administration, networking and marketing of goods and services in business. One null hypothesis tested at 0.05 level of significance guided the study. The design used for the study was descriptive survey and the data collection instrument was a structured questionnaire. The population of the study was all of the 1251 registered entrepreneurs of medium and large scale enterprises in the private sector from which 723 respondents were drawn via. a proportionate stratified random sampling technique. Mean and standard deviation were used in analyzing the data from the research questions and the real limit of numbers was used to judge the responses as to whether they were high or low. Findings of the study showed that ICT is utilized to a high extent to enhance administration, networking and marketing of goods and services in South-East, Nigeria. The null hypothesis of no significant difference in the marketing of goods and services was not accepted. Based on these findings, recommendations were made which include that the government needs to balance the potential gains from innovation in ICT with the need to provide stable and reliable operations and services, entrepreneurs should insist on employing staff with ICT compliant skills and entrepreneurs should raise skill levels of their staff to enable them to grow in open and productive markets.

INTRODUCTION

Entrepreneurship stirs up ideas that could enhance enterprises. This perhaps informed why entrepreneurship is fundamental to generating new ideas and developing new business opportunities. Osuala[1] stated that while the word entrepreneur describes the person or the actor, entrepreneurship talks about the actions, efforts, abilities,

skills, processes or sometimes the business unit itself. Following the same opinion, Inegbenebor[2] said that entrepreneurship is about learning the skills needed to assume the risk of establishing a business. It is about developing strategies and executing them with all the vigour, persistence and passion needed. According to him, preparing for entrepreneurship focuses on attitude and skill formation for the identification of economic opportunities, feasibility analysis, business planning and making arrangements for the sustenance and growth of the enterprise. Similarly, SMEDA[3] stated that entrepreneurship develops when a person organizes and manages a commercial undertaking. SMEDA also noted that entrepreneurship combines strong character of diligence, innovativeness, readiness to take risk, ability to sense opportunity, ability to mobilize human and material resources being goal-oriented and focused, preserving and dogged for growth and excellence. To define enterprise, Hyper Dictionary stated that enterprise is a purposeful or industrious undertaking, readiness to embark on bold new ventures and an organization created for business ventures.

Emphasizing on the importance of enterprises, Eneh[4] stated that it is indisputable that enterprises hold the key to national economic development because they create jobs, wealth, alleviate poverty, promote equity, social security, encourage the culture of self-help and self-reliance. He added that they promote enterprises, productivity, provide opportunities for careers and skills development as well as rural and community development. Similarly, World Bank International Finance Corporation Report by UNDP[5] maintained that enterprises are important because on the average, enterprises comprise over 95% of the economy, the contributions of the enterprise to employment and the countrie's Gross Domestic Product (GDP) are by no means trivial. UNDP still reported that close to 140 million enterprises in 130 countries employed 65% of the total labour force. Enterprises are the framework for economic growth and innovation. Moreover, Ike noted that enterprises respond positively to social and free markets, creativity, innovation, promotion of individual and group initiative, self-reliance and above all self-fulfilment.

As affirmed by Ecorys whether enterprises be multinational, large or not, the nature and the growing importance of the competitive advantage afforded by new technology, together with trade, capital liberalization and growing pressures of competition are forcing enterprises to exploit both technological knowledge and markets on an international scale. Entrepreneurship gives rise to innovations. Nagy pointed out that investment in Information and Communication Technologies (ICT) and use can affect innovation. ICT is strategic to capture the market because of the potentials it can offer to enhance entrepreneurship. ICT has enormous potential to assist economies in achieving specific economic development goals. ICT has the capacity to improve communication and boost the exchange of information and the role of communication in the success of any enterprise cannot be overemphasized. As identified by Itegboje *et al*.[6]:

> Communication is the soul of business. It is the life wire of every organization. Communication is a process by which an individual, group or organization shares information with another for a definite purpose. In business management, communication makes it possible for important processes and functions such as planning, organizing, leading, supervising, decision-making, delegating and motivating. p.307

They maintained that communication involves budgeting, negotiations, representing and controlling. Through the internet, the computer has made business communication in various forms possible. Internet is meant for communication both within and across national boundaries. The internet according to Patton[7] is a world-wide communication matrix that provides users with access to electronic mail, news, training, instruction, maps, computer files, games and countless volumes of information on virtually any subject. The internet even links customers to commercial web sites where one can compare and buy products without leaving home. Panos[8] stated that ICT-based knowledge and products contribute directly to wealth creation. Through this knowledge, entrepreneurs use ICTs in several ways by substituting phone calls for travel which saves time and money and using ICTs to obtain information on prices for their products and purchases.

The computer has been of immense benefits to the socio-economic and human development of all industrialized and developed countries of the world. In developing countries, the impact of ICT is advancing step by step, especially in urban areas. The quick development of ICT during the last two decades of the twentieth century has contributed to change both the information and communication system in human enterprises and the daily lives of the people. Despite the potential contributions of ICT to boost production, there are still obvious disadvantages of none utilization of ICT in business. The absence of ICT in business will lead to poor marketing of product, lack of access to information and cooperation among entrepreneurs in the business world. However, this study will determine the extent to which ICT is utilized to boost production in South-East, Nigeria.

ICT has a great role to play to enhance entrepreneurship. Bartelsman and Hinloopen pointed out that the use of ICT could have several impacts on productivity. It might help more productive enterprises gain market share. The use of ICT may help enterprises expand their product range, customize the services offered or respond better to client demand and to innovate. Moreover, ICT may help reduce inefficiency in the use of capital and labour by reducing inventories. All these effects might lead to higher productivity.

As pointed out by Agbonifoh[9] e-Commerce is an online buying and selling of goods and services via. the computer without leaving the comfort of their homes or offices. e-Business is used to describe businesses run on the internet or utilizing internet technologies to improve the productivity or profitability of a business. This function of e-Business is referred to as e-Commerce and the terms are used interchangeably. Also, ITAA[10] said that IT is the study, design, development, implementation, support or management of computer-based information systems, particularly software application and computer hardware. It deals with the use of electronic computers and computer software to convert, store, protect, process, transmits and securely retrieves information. When computer and communication technologies are combined, the result is information technology.

Supporting the same view, OECD[11] stated that ICT and e-Commerce offer benefits for a wide range of business processes. At the firm level, ICT and its applications can make communication within the firm faster and make the management of the firm's resources more efficiently. Seamless transfer of information through shared electronic files and networked computers increases the efficiency of business processes such as documentation, data processing and other back-office functions such as organizing incoming orders and preparing invoices. He maintained that increasingly sophisticated ICT applications such as Knowledge Management System (KMS) and Enterprise Resource Planning (ERP) allow firms to store, share and use their acquired knowledge and know-how. Customer databases with a history of client-specific correspondence help managers and employees to respond more effectively to customers. A company-wide electronic data aims to disseminate employee's professional experience. He posited that at inter-firm level, the internet and e-Commerce have great potential for reducing transaction costs and increasing the speed and reliability of transaction. They can also reduce inefficiencies resulting from a lack of coordination between firms in the value chain. Internet-based business to business interaction and real-time communication can reduce information asymmetries between buyers and suppliers and build close relationships among trading partners.

Again, OECD[12] pointed out that adopters of e-commerce tend to reduce transaction costs, increase transaction speed and reliability and exact maximum value from transactions in their value chains. They emphasized that: in the business to customer context, the internet and e-Commerce can be effective tools for better communication. A corporate web site that provides information on products, services or technologies can enhance the quality of a firm's services to customers and attract new customers. By collecting information on customer's needs, it can be used for product development or innovation. They claimed that a home page with a direct link to the corporate e-Mail account provides an easy-to-access contact point. For those in different time zones, 24 h availability of the contact is especially, attractive. Also, METI[13] stated that: in enterprises, there is often insufficient sharing of business information between entrepreneurs and among staff in part because the personnel's daily routine tends to be extremely busy. To improve a firm's responsiveness to customers, client feedback and information on staff professional experience such as know-how for winning a contract can be electronically stored and thus available to be shared within the company. Some enterprises have exploited ICT effectively to improve internal communications and have improved their reputation through swift responses to customer's complaints and an ability to capture client's needs.

Research questions:

- To what extent do entrepreneurs utilize ICT in administration to boost production in business?
- To what extent do entrepreneurs utilize ICT in networking to boost production in business?
- To what extent do entrepreneurs utilize ICT in the marketing of goods and services?

Hypothesis: There is no significant difference in the mean rating of entrepreneurs of medium and large scale enterprises on the extent to which ICT is utilized in the marketing of goods and services.

Literature review

Boosting production through ICT: Productivity according to Roberts and Tybout[14] measures the relationship between the quantity and quality of resources like labour, capital and technology needed to produce them. The measure of how resources are being brought together in organizations and utilized for accomplishing a set of results is reaching the highest level of performance with the least expenditure of resources. Productivity is the instrument for continuous progress and involves a constant improvement of activities. It is often seen as output per unit of input. Higher productivity connotes achieving the same volume of output with less

factor inputs or more volume of output with the same amount of factor inputs. Increased productivity could result from the reduction in the use of resources, reduction in cost, use of better methods or improvement in factor capabilities particularly labour.

According to UNDP[15], ICT has the ability to facilitate the development of integrated and scalable solutions in both the public and private sectors that can allow for streamlining and cost-effective delivery of social goods and services, particularly in the case of healthcare and education. ICT has also been important in increasing the sustainability and effectiveness of production cooperatives and micro-enterprises such as milk, embroidery and craft cooperatives and raising income levels of poor women. The informal sector tends to be greatly underserved in terms of social security and services and ICT is also being used to make it possible. OWSA[16] posited that ICT can make the available modern and improved method of production of goods to be within the reach of the poor and beef up delivery of government services. To further stress the contributions of ICT to productivity, UNITS[17] enumerated the following:

Reaching and making use of market place, online price boards to get better prices for product, animals as well as better offers on supplies for seeds, fertilizers, mechanical devices, fishing girt and more information on trading conditions. Accessing online services that contain information about job opportunities. Ensuring e-exchanges or simple e-Commerce points for the marketing of goods and services at all levels of the economy. Training people, particularly unemployed youth on employable ICT skills'.

Making networks available for farmers, fishermen, co-operative and extension workers to share best practices on cultivation methods, seed, fertilizers, pest, crop species, produce storage, markets, fairs and water management.

However, Efendiogu[18] noted that technology invention, variation and innovation are important but technology diffusion and use maybe even more important for developing countries. New technologies such as information and communications technologies and biotechnologies are cross-section technologies and their application to traditional agriculture, manufacturing and service activities can change both processes and business methods, increasing both productivity and competitiveness.

Krugman[19] pointed out that competitiveness is dependent not only on macroeconomic adjustment or natural endowments but also on the potentials to achieve high productivity by developing and using these assets (human resources, capital and physical assets) in the most effective manner. According to Porter[20], competitiveness is based on the increased productivity of a nation's enterprises (continuous increases in value-added). To achieve these increases in value-added, enterprises must transform their ways of competing. They must shift from a comparative advantage (low-cost labour) to competitive advantages, namely the ability to compete on cost and quality, delivery and flexibility. UNCTAD[21] said that very often the single most important indicator of competitiveness is export competitiveness. This consists not only of higher exports but also more diversified exports and an increase in their technology and skill content. It also includes an expanding base of domestic enterprises able to compete globally, thus, competitiveness is sustained and is generally accompanied by rising incomes. Growing market shares show dynamic competitiveness and reveal the ability of a country to get ahead in terms of technology and trade. According to Efendiogu[18], strategic competitiveness has two main aspects: the ability to stay close to the frontier of technology and integrated international production systems and the capability and flexibility to accommodate change in old and new industries. Thus, UNIDO[22] agrees that gains in market shares might be temporary as a result of preferential market access or recent insertion into a supply chain. For gains to be sustained the enterprises must be based on upgrading human skills and technologies.

Moreover, Mytelka[23] stated that competitiveness increasingly depends on the ability to incorporate new technology and management practices. Manufacturing product has become extremely complex and knowledge-intensive as investments in intangibles such as research and development, software, design, engineering, training, marketing and management come to play a greater role in the production of goods and services. He said that this has gradually extended beyond the so-called high technology sectors to reshape a broad spectrum of traditional industries. Thus, creating a platform for increased technology accumulation and catching-up possibilities which has led to the development of competitive national production capacity in many first-tier and second-tier Newly-Industrialized Economies (NIEs). In support of the above view, Hobday[24] stated that: Newly-Industries Economies (NIEs) are successful examples of export-led growth based on traditional industries. Initially focused on the manufacturing of clothing and textiles, leather and footwear, plastic and toys, they have switched to the low-technology industries. Some are now leading exporters of technology in the electronics and information technology field. Such linear progress is not necessarily an invariant sequence and is probably very much related to historical and geographical

circumstances. He maintained that the key to sustained growth, invariably calls for a structural change from simple to more advanced technologies. When countries are catching up, this consists mainly of problem-solving capabilities that enable firms to improve their productivity and to imitate and adapt products. He asserted that when countries are keeping up, technological upgrading within the firm and continuous improvements in product quality become crucial in order not to lose recently gained competitive advantages. Finally, when countries are getting ahead, the capability to design and develop new products and processes becomes vital, based on both research and development and continuous innovation efforts.

Following the same opinion, Hallberg and Bond[25] reemphasized the importance of technology to productivity by saying that the two most important ingredients to enhance the productivity of enterprises are access to finance and the new technologies. Without access to new technologies, enterprises in developing countries will continue to use outdated modes of production and will not be able to meet international quality requirements. Without access to finance, enterprises will not be able to make the necessary technology investments to innovate or even update their production processes or products so that they can compete in global markets. To become and remain productive, enterprises need to move away from being passive receivers of technology. In the past, technology was thought of as a package that could be acquired in the market place. Now, it is understood that using it effectively requires some implied knowledge. Therefore, technology is not simply a package that an enterprise can purchase off the shelf in order to become productive. Its effective harnessing involves a cumulative process of learning. To merely acquire and use technology, enterprises do not need to be particularly innovative. To master new technologies, they need to have in place a system that is receptive to innovation. In some countries, enterprises are extremely active in Research and Development and in developing new and innovative products. For example, many of the recent internet-based technologies would never have emerged without the highly innovative, flexible small enterprises that pioneered these technologies. Besides access to finance, enterprises in developing countries also need access to information and skilled labour in order to develop such technology capabilities.

In the view of Lall[26], skills are essential prerequisite for national productivity and technological mastery. Skills are the most important single determinant of productivity. The comparative advantage of developing countries lies in their natural resource endowments and low-cost labour. There is widespread evidence of investors choosing investment destinations for low-cost labour advantages. It is possible to enhance productivity for short periods by relying on unskilled labour. This is not a long-term strategy but countries have to raise skill levels to grow in open, productive markets. There is no other way to keep and improve productivity. For developing countries to modify their traditional comparative advantage of low-cost labour towards more skilled and flexible labour and working methods, their enterprises can climb the technology ladder and compete in the emerging global economy. However, he said that the mastery, use and modification of new technologies call for more skills. In many developing countries where basic education and literacy levels are low, it is difficult to match coverage and technical content to investor's requirements.

According to David, ICT is one such technology that is everywhere and important across the developed world. Its strength lies not in just being a sector subject to rapid technological change but also in that it can increase productivity in other sectors of the economy. ICT has offered much help in the services and manufacturing sectors such as wholesale and retail trade. Again, Carr[27] pointed out that ICT has led to an increase in productivity and was responsible for the productivity boom of the United States. ICT has led to a massive increase in business productivity in the following areas:

As a knowledge-based sector-The ICT producing sector has been subject to some of the most extreme improvements in productivity of any sector with processor prices falling alongside massive increases in processor power. It is a sector with a high level of investment in research and development and is highly innovative and subject to rapid technological change.

As capital-ICT is in itself a capital good and investment in ICT will increase labour productivity through the effect of people using computers. The use of ICT can allow a given input to produce a greater output than without ICT.

According to Gordon[28] ICT, viewed as all-purpose technologies are associated with a third industrial revolution in most of the recent literature. It increases growth potential and brings about productivity gains, improving the quality of life. In the United States of America, a quick acceleration in productivity growth has been associated with a strong ICT contribution during the second half of the 90's. Also, OECD[29] pointed out that ICT can help make markets more efficient by improving economic management and distribution. It is worth investing in it because the economy will grow and resource use will become more economical. ICT adds value by allowing users to operate within faster, larger and more interactive networks. These lower transaction costs and speed up innovation because people and markets are better connected, whether in sharing

knowledge or trading goods. Firms use ICT to improve efficiency and reduce costs. And households are better informed about different options, quality and prices, so that, even if they do not always buy online, they reap the benefits of having access to ICT.

In continuation UNESC[30] emphasized that ICT can spur growth, create jobs for the poor, improve market access, contribute to income generation and enhance rural productivity. The economic contribution of ICT is two-fold: income generation and poverty reduction. ICT enables people and enterprises to capture economic opportunities with a view to increasing process efficiency, promoting participation in expanded economic networks and creating opportunities for employment. They claimed that ICT can enable solution-sharing among local people and communities, providing access to practical information on matters such as small-sized business accounting, weather trends or best farming practices. Also, they can facilitate global connectivity, resulting in new ways of creating and delivering products and services on a global scale and provide developing countries with access to new markets and new sources of competitive advantage to boost income growth. According to them, ICT can also enhance the key role that enterprises play in national economic development strategies by facilitating flows of information, capital, ideas, people and products. A strong enterprises sector that is integrated into the global digital economy can lead to job creation, increased public revenue and a general rise in the standard of living. The uses of ICT to enable enterprises to participate in the knowledge economy offers enormous opportunities to narrow social and economic inequalities and thus help achieve broader development goals.

OECD[11] aptly observed that the internet and e-Commerce enable enterprises to gain access to new customers and to expand their market geographically, even if they physically have to remain in local and regional markets because of lack of information and marketing capability. Through their web sites, enterprises can attract potential investors and customers by providing information on their technologies, products, services and financial positions. Moreover, the internet can help knowledge-based small businesses convey their ideas to the whole world, allowing even micro-enterprises with ideas and technologies to remain small and profitable. It can even generate substantial global sales by exploiting their intellectual property over the internet. ICT and e-Business applications provide many benefits across a wide range of intra and inter-firm business processes and transactions. ICT applications improve information and knowledge management inside the firm and can reduce transaction costs and increase the speed and reliability of transactions for both business-to-business and business-to-consumer transaction. They are effective tools for improving external communications and quality of services for established and new customers.

ICT will continue to support rapid productivity growth. There may be slow productivity growth for many enterprises if they fail to catch up technologically with the industrialized world.

MATERIALS AND METHODS

This study is a descriptive survey research design. The area of study is South-East, Nigeria comprising of the present Abia, Anambra, Enugu and Imo states. The population is 1251 registered entrepreneurs of medium and large scale enterprises in South-East, Nigeria. The sample is 723 entrepreneurs. Proportionate stratified sampling technique was used to determine entrepreneurs of medium scale enterprises while the entire entrepreneurs of large scale enterprises were used. The instrument used was the questionnaire adapted from the Global e-Commerce Survey, 2002. The number of items in the questionnaire was 16.

The instrument was subjected to face validity by three experts. Their inputs were incorporated into the instrument by the researcher. The reliability of the instrument was established through field trial test by administering the instrument to 30 entrepreneurs outside the Zone of study. Cronbach alpha was used to analyze the data. The reliability estimate was 0.78 which shows that the instrument is reliable. The researcher employed the services of five research assistants for the 5 states.

Data were analyzed using mean and standard deviation to answer research questions. In interpreting the response of entrepreneurs the real limit of numbers were adopted. The t-test statistics were used to test the hypothesis at 0.05 level of significance.

RESULTS

Research question one: To what extent do entrepreneurs utilize ICT in administration to boost production in business?

Items 1-6 fall within then mean range of 2.50-3.49. This signifies that entrepreneurs utilize ICT to a high extent in administration to boost production in the business (Table 1).

Research question two: To what extent do entrepreneurs utilize ICT in networking to boost production in business. Items 7-10 have their means ranging between 2.50-3.49. This means that entrepreneurs utilize ICT to a high extent in networking in business (Table 2).

Research question three: To what extent do entrepreneurs utilize ICT in the marketing of goods and services?

Item 11 has mean (3.65) within the range of 3.50-4.00. This is an evidence that entrepreneurs utilize

Table 1: Mean scores of entrepreneurs on the extent of utilization of ICT in administration in business

Items	$\bar{X}$	SD	Decision
1. Using the internet for receiving or sending messages on existing goods and services to order for goods	3.24	0.97	HE
2. Using phone for communication in business to substitute for travels	2.54	0.50	HE
3. Typing and storing information in the computer to safeguard documents	3.24	0.97	HE
4. Using ICT statistical packages in accounting and budgeting practices for transparency in business	2.63	1.17	HE
5. Using internet-based production function packages in reducing wastage in production	2.89	1.05	HE
6. Increasing customers through websites has created more awareness	2.93	0.93	HE

Table 2: Mean scores of entrepreneurs on the extent of utilization of ICT in networking in business

Items	$\bar{X}$	SD	Decision
7. Networking with other enterprises through the internet to keep abreast of new technology	2.67	1.10	HE
8. Using online price board has made it easier for customers to get better offers on supplies	2.50	1.18	HE
9. Browsing to get information on the new methods of services and products from the internet	2.64	1.12	HE
10. Using satellite conferences to share knowledge on new methods of production	2.96	0.98	HE

Table 3: Mean scores of entrepreneurs on the extent of utilization of ICT inthe marketing of goods and services

Items	$\bar{X}$	SD	Decision
11. Advertising products and services on the internet to attract customers	3.65	0.65	VHE
12. Advertising employment opportunities on the internet to draw experts	3.22	0.95	HE
13. Online purchase of goods and services brings transactions to our doorsteps	2.66	1.15	HE
14. On-line delivery of goods and services has eliminated much risk in transportation	1.46	1.18	N
15. Using a web forum for enterprises to showcase their products to an international market	2.55	1.12	HE
16. Using the computer has facilitated the marketing of goods and services	2.88	1.07	HE

Table 4: T-test of difference between the mean scores of entrepreneurs of medium and large scale enterprises on the extent of ICT utilization in the marketing of goods and services

Enterprises	N	$\bar{X}$	SD	df	T	Sig. (2-tailed)	Decision
Medium	277	2.78	0.10	510	-2.80	0.10	Significant
Large	235	3.03	0.99				

ICT to a very high extent in the marketing of goods and services. However, item 14 has a mean of 1.46. This means is within the range of 1.00-1.49. The implication is that the internet is not used by entrepreneurs in the South-East to deliver goods (Table 3).

However, a grand mean of 2.89 was computed for the cluster, showing that entrepreneurs use ICT to a high extent to boost production of goods and services.

- H_{01}: there is no significant difference in the mean rating of entrepreneurs of medium and large scale enterprises on the extent of utilization of ICT in the marketing of goods and services. The data verifying the above hypothesis is presented in Table 4

Table 4 shows that the calculated t value -2.80 and significant at 0.01. The value of t is equally significant at 0.05. This is because 0.01<0.05. Hence, the hypothesis is not accepted. There is a significant difference between the mean scores of entrepreneurs of medium and large scales enterprises on the extent of ICT utilization in the marketing of goods and services.

DISCUSSION

Increased productivity is the major goal of every entrepreneur. The finding shows that entrepreneurs utilize ICT to a high extent to boost production in South-East, Nigeria. The finding shows that entrepreneurs utilize ICT to a high extent to enhance administration in business. This could be attributed to the fact that entrepreneurs have realized that ICT facilitates communication within and outside the business thereby connecting customers to the business and business to business. This finding agrees with OECD[11] that ICT and e-Business applications provide many benefits across a wide range of intra and inter-firm business processes and transactions. ICT applications improve information and knowledge management inside the firm and can reduce transaction cost and increase the speed and reliability of transactions for both business to business and business to customer transaction. They are effective tools for improving external communications and qualityof services for established and new customers.

The finding on networking shows that entrepreneurs utilize ICT to a high extent in business networking. Entrepreneurs want to ensure that they work with the most current ideas and knowledge to improve productivity. This can only come by the exchange of new methods of production through ICT. This finding lends credence to UNESC[30] that ICT can enable solution-sharing among local people and communities, providing access to practical information on matters such as small-sized business accounting, weather trends or best farming practices. The can facilitate global connectivity, resulting in new ways of creating and delivering products and

services on a global scale and provide developing countries with access to new markets and new sources of competitive advantage to boost income growth. The finding also agrees with OECD[29] that ICT adds value by allowing users to operate within faster, larger and more interactive networks and markets are better connected, whether in sharing knowledge or trading goods.

Finally, the finding reveals that entrepreneurs utilize ICT to a high extent in the marketing of goods and services. This could be so because entrepreneurs are fully aware that the use of ICT can widen the scope of their market. This finding agrees with Bartelsman and Hinloopen that the use of ICT could have several impacts on productivity. It might help more productive enterprises gain market share. The use of ICT may help enterprises expand their product range, customize services offered or respond better to client demand and to innovate. Also, the finding corroborates with OECD[11] that internet and e-Commerce enable enterprises to gain access to new customers and to expand their market geographically. Through their websites, enterprises can attract potential investors and customers by providing information on their technologies, products, services and financial positions.

The hypothesis shows that the calculated t value of -2.80 and significant at 0.01. This value of t is equally significant at 0.05. This is because 0.01<0.05. Hence, the hypothesis is not accepted. There is a significant difference between the mean scores of entrepreneurs of medium and large scale enterprises on the extent of ICT utilization in boosting production. This response is in consonant with UNESC[30] view that ICT can spur growth, create jobsfor the poor, improve market access, contribute to income generation and enhance productivity.

CONCLUSION

ICT capability is important to the effective delivery of services and realizing improvements in business productivity. Fewer and simpler interactions with staff and customers will allow entrepreneurs to increase their productivity. The Productivity Commission (2004) has identified that investment in ICT capital results in improved labour productivity as well as enabling innovation. The decisions to procure ICT systems should consider the scope of implications for customers and business. ICT has the ability to transform enterprises, services to improve productivity, meet people expectations for effective services and create a more open access in business.

RECOMMENDATIONS

The government needs to balance the potential gains from innovation in ICT with the need to provide stable and reliable operations and services. Entrepreneurs should insist on employing staff with ICT compliant skills. Entrepreneurs should raise the skill levels of their staff to grow in open and productive markets.

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