

Utilization of Information and Communication Technology in Enhancing Entrepreneurship Development in Akwa Ibom State, Nigeria

¹Dr. Nsini A. Akpan & ²Comfort Monday Etokakpan

¹Department of Vocational Education, Faculty of Education
University of Uyo, Uyo.

²Department of Home Economics, School of Vocational and Technical
College of Education, AfahaNsit
E-mail: commymoje@yahoo.com

Abstract

The study was on 'utilization of Information and Communication Technology (ICT) to enhance entrepreneurship in Akwa Ibom State, Nigeria. ICT constitutes an important sector of economic activity, achieving high growth rates in developed as well as in developing countries: a platform for exchanging data, information, knowledge, and a tool for implementing applications such as e-commerce and e-health. ICT plays a catalytic role as an enabler to development. Recent development in technologies, reduction in prices, greater availability of networks and a more user-friendly approach to technologies are strengthening the role that ICT can play in support of development. The concept of ICT and entrepreneurship were discussed. Barriers confronting ICT were also enumerated. It was suggested that ICT infrastructure should be provided to enhance entrepreneurial spirit.

Keywords: Information and Communication Technology, entrepreneurship, development

Introduction

Entrepreneurship is the process of bringing together creative and innovative ideas, combining them with management and organisation skills in order to combine people, money and resources to meet an identified need and thereby create wealth. It is also the willingness and ability of an individual to seek out investment opportunities, establish and run a business or enterprise successfully. As reported by World Bank (2009), entrepreneurship has been acknowledged as one of the most important factor that contributes substantially to the economic growth and development in every country. It is in this recognition that today every country accords priority to entrepreneurship education development. Entrepreneurship has assisted in addressing the problems associated with poverty, unemployment and promoting economic activities that guarantee effective and efficient exploration of natural resources. Entrepreneurship is fundamental to generating new ideas and developing new business opportunities (Shanghai, 2001).

Ecorys (2007) opined that enterprises be it 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 (2003) pointed out that investment in Information and Communication Technologies (ICT) and use, can affect innovation. ICT according to UNDP (2001) refers to the full range of electronic technologies and techniques used to manage



information and knowledge. In this study the term ICT is not referring to all the media currently available but more restrictedly to the recent computer technologies, internet, computer and cell phones.

Information and Communication Technology has become the modern-day strategy to capture the market because of the potentials it can offer to enhance entrepreneurship. ICT has enormous potentials to assist economies in achieving specific economic development goals. ICT has the ability to improve communication and enhance the exchange of information and the role of communication in the success of any enterprise cannot be overemphasized. As identified by Iteboje, Adigun and Oyeyinka (2001), 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. Iteboje, Adigun and Oyeyinka (2001) 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 (2001) 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. ICT has a great role to play to enhance entrepreneurship. Bartelsman and Hinloopen (2002) 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. Investment in ICT might also have benefits going beyond those accruing to investors in ICT. Bartelsman and Hinloopen (2002) further stated that the diffusion of ICT may help establish networks, which produce greater benefits which are spillover effects, the more customers or enterprises are connected to the network. The spread of ICT may reduce transaction costs which could lead to a more efficient matching of supply and demand and enabling the growth of new markets. Increased use of ICT may also lead to greater efficiency in the creation of knowledge. Where such spillovers exist, they raise overall multifactor production (MFP) growth.

Okpoko (2004) reported that computer has contributed substantively to the socio-economic and human development of all industrialized and developed countries of the world. In developing countries the impact of ICT is gradually being felt especially in urban areas. The rapid advancement of ICT developed during the last two decades of the twentieth century has continued to change both the information and communication system in human enterprises and in the daily lives of the people. For Nigerians to be employable and entrepreneurial the demand is not degree or qualification but innovative people who can contribute meaningfully to the economy and society.

It is against this background that this study seeks to find out how the utilization of ICT has enhanced entrepreneurship in Akwalbom State.

According to Chris (2012) the growth of personal computer and computer networks continues to impact businesses both large and medium. Through computer and internet connection entrepreneurs can perform administrative tasks like paying your business bills on



your computer, as well as marketing your business online, e-mail and instant messaging allow for easy communication. Moreover Uchegbu (2002) pointed out that the introduction and use of internet has caused an important revolution in communication and that is capable of improving the way we communicate study, contract and transact business. This progress in business is noted as a result of progress in the ability to link up computers.

Concept of Information and Communication Technology (ICT)

Computers and the internet are continuing to transform the economy and society, thus making the role of information and communication technologies (ICT) in fostering development become more broadly acknowledged. According to Wade (2001) ICT is a techno-quick-fix for solving development problems that have spanned generations. In the opinion of Wills (2001) the internet is the largest, most powerful computer network in the world. It encompasses 1.3 million computers with internet addresses that are used by up to 30 million people in more than fifty countries.

According to UNDP (2001) ICT is basically information-handling tools which are varied sets of goods, applications and services that are used to produce, store, process, distribute and exchange information. ICT include radio, television and telephone and the new ICT of computers, satellite and wireless technology as well as the internet. These different tools combine to form our network world, a massive infrastructure of interconnected telephone services, standardized computing hardware, the internet, radio and television which reaches into every corner of the globe. ICT constitute an important sector of economic activity, achieving high growth rates in developed as well as in developing countries: a platform for exchanging data, information, knowledge, and a tool for implementing applications such as e-commerce, e-schools or e-health. ICT can play a catalytic role as an enabler to development. Recent development in technologies, reduction in prices, greater availability of networks and a more user-friendly approach to technologies are strengthening the role that ICT can play in support of development.

Nagy (2003) posited that ICT is becoming a powerful tool for mobilizing civil society and the underutilized human resource. ICT is an all purpose technology. ICT, particularly the internet, is a networking infrastructure that can connect, empower and coordinate as well as deliver all kinds of services. He maintained that this networking infrastructure is also a delivery channel for reaching the poor and remote areas with more responsive and cost effective public services. The massive backlog of educational, health, extension and social needs in developing countries are unlikely to be effectively and in a timely fashion addressed without the innovative and strategic application of these new technologies. Given the profound impact of ICT on productivity, product differentiation, competing in time and accessing markets, developing countries must use ICT in order to leverage their competitive advantage and participate in the global economy.

Concept of Development



Development which has the core values of sustenance, self-esteem and freedom from servitude. It is a multidimensional process involving major changes in social structures, population attitudes and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty (Todaro and Smith, 2011). Its essence is to increase the availability and widen the distribution of basic life resources; raise the level of living through increase in income, provision of more jobs, better education and greater attention to cultural and human values; and expand the range of economic and social choice available to individuals and nations (Todaro and Smith, 2011).

Generally, development is seen as process by which man increases or maximizes his control and use of the material resources with which nature has endowed man and his environment. Afigbo (2001) affirmed that development consists of five main ingredients, increasing material wealth for the individuals and the nation, eliminating unemployment, eliminating poverty and want, eliminating inequality, and increasing the general availability of labour saving devices. Development, from its inception is a kind of holistic movement from under-development to a robust economy and rural development is not an exception.

Therefore, development is a multi-dimensional process by which the productivity, income and welfare, in terms of health, nutrition, education and other features of satisfactory life of the people can be improved upon or transformed. According to Igbokwe and Ajala (2005), the earliest attempt at development during the colonial era took the form of community development, and later agricultural extension. The community development approach emphasized self-help to improve health, nutrition and community welfare, whereas the agricultural extension approach was concerned with improving the agricultural productivity. The goal of both programmes ultimately was to produce, primary products for the feeding of European industries.

Concept of Entrepreneurship Development

Entrepreneurship is defined by Osuala (2004) as the ability to set up a business enterprise as different from being employed. It involves the acquisition of skills, ideas and managerial abilities necessary for self-reliance. According to Steinhoff and Burgess (2003) entrepreneurship occurs when an individual develops a new venture, a new approach to an old business or idea or a unique way of giving the market place a product or service by using resources in a new way under conditions of risk. Osuala contended that success in enterprises and entrepreneurship are closely related and cannot be separated. Supporting the same opinion Ray, Adams and McMillian (2000) identified twelve significant contributions of entrepreneurship. These include: (a) raising productivity through technical and other forms of innovation; (b) constituting a powerful tool for job creation (c) facilitating the transfer of technology; (d) playing a critical role in the restructuring and transformation of economies; (e) playing a strategic role in commercializing new inventions and products; (f) helping to reduce the classification of established social institutions and (g) the concentration of economic power. Other contributions according to the author stimulating a redistribution of wealth and income within societies in ways that are economically positive; (b) breathing vitality into the life of large corporations and governmental enterprises; (c) making enterprises more competitive and thereby reducing both static and dynamic market influences; (d) creating new markets and (e) facilitating expansion into international markets.



Utilization of ICT to Create Enabling Entrepreneurship Environment

According to OECD (2004) a healthy business environment is fundamental for firms to thrive and benefit from ICT. This includes a transparent, an open and competitive business framework, and independent rule of law for all firms, easy set up of businesses, simple and accessible corporate regulation and equal and stable legal treatment for national and cross-border transactions. Stressing the same points, OECD (2002) enumerated the following steps to create a healthy entrepreneurship environment for ICT adoption in firms. They include:

1. Network infrastructure: Encourage rollout and use of quality infrastructure at affordable prices. Broadband connectivity is a key component in ICT development, adoption and use. It accelerates the contribution of ICT to economic growth, facilitates innovation and promotes efficiency, network effects and positive externalities. Trust Infrastructure will require getting the regulatory infrastructure right for trust, security, privacy and consumer protection. Essential are a culture of security to enhance trust in the use of ICT, effective enforcement of privacy and consumer protection and combating cyber-crime and spam.
2. Digital Production and Information Services: These are increasingly a significant part of economic activity that offers important opportunities to firms. Governments and the private sector have the roles of facilitating content availability across all platforms and encouraging local development of new content, including content from public sources.
3. Skill Upgrading: Lack of ICT skills and business skills are widespread impediments to effective uptake once adoption decisions are made. Governments have major roles in providing basic ICT skills in compulsory schooling and an important role in conjunction with education institutions, business and individuals in providing the framework to encourage ICT skills formation at higher levels, in vocational training and in ongoing lifelong learning.
4. Information: Firms may lack objective information regarding the benefits and costs of adopting ICT. The private sectors like business associations and government have a role. They can provide information about service available and when necessary improve coordination of government information on the benefits of adoption and use of ICT including case studies and good-practice demonstrations to tackle market failures through information supply.
5. Government on-line: On-line provision of government information and services can increase the efficiency and coverage of public service delivery to firms. It can act as a model user and standard-setter for ICT adoption by firms. As a model user of broadband, government can demonstrate the potential of broadband-based services and content, provide demonstration and pull-through mechanism for firms.

In today's highly technological environment, encouraging industrial technology, information and telecommunication technology are crucial for enterprise development. Promoting industrial technology for enterprises is important because it is a channel for the improvement of productivity and quality of the product. Assistance in upgrading the literacy, numeracy, computer competencies and basic education levels of managers and employees will create an enabling environment for ICT utilization in enterprises.

Utilization of ICT in Enhancing Marketing of Goods and Services

According to UNDP (2003) ICT has the potential 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.

United Nations Information Technology Service (UNITS, 2007) enumerated the following advantages of ICT in marketing goods and services:

1. Accessing and using 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's on trading conditions.
2. Accessing online services that contain information about job demand and offers.
3. Establishing general e-exchanges or simple e-commerce points for buying and selling goods and services at the local provincial or national level.
4. Training people, particularly unemployed youth on employable ICT skills'.
5. Creating online repositories of information by academics, extension workers, government officials and farmers to make knowledge resources on farming and fishing more widely available through graphic interface for easier information access.
6. Establishing networks 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.
7. Collaboration of online volunteers with farming backgrounds and expertise, providing services to onsite volunteers and community members regarding new farming and livestock management techniques.
8. Providing learning materials to support centers that encourage potential early drop-out children to return to school.
9. Stimulating contributions from online volunteers of teaching materials to special educational online knowledge centers available in CD – ROMs, DVDs etc.
10. Creating special programmes, using special software and computer interfaces to provide basic literacy training for adults.

ICT Utilisation and Product Promotion

To make good profit, sales have to be increased and increasing sales has to do with creating awareness as per the availability of goods. Promotion does this awareness creation job efficiently. McCarthy (2007) defined promotion as the communication between the seller and buyer to change attitudes and behaviour. The sales or marketing manager's job is to tell target market that the right product is available at the right place and with the right price. The common promotional mix variables are advertising, sales promotion, personal selling, publicity, public relations and direct marketing.

Direct marketing is the use of consumer direct channels to reach and deliver goods and services to customers without using marketing middlemen. These channels include direct mail, catalogues, telemarketing, interactive TV, Kiosks, Websites and Mobile devices (Kotler, 2003). The advent of technology has necessitated the use of direct marketing to build a long-term relationship with customers-customers relationship marketing. A good number of items or articles are now sent to customers directly without utilizing the services of middlemen.



Until recently, mail was paper-based and handled by different postal services in the world. Today, three forms of mail delivery have surfaced. These are fax mail, e-mail, and voice mail.

1) Fax Mail- The invention of fax machines has enabled marketers to send fax mail announcing special offers, sales, and other events to prospects and customers,. These fax messages can be sent and received without delay almost instantaneously (Kotler and Armstrong, 2005).

2) E-mail- Today, with Internet, many marketers send sales announcements, offers, product information, and other messages to e-mail addresses to a few individuals or large groups. According to Kotler and Armstrong (2005), today's e-mail messages have moved far beyond the drab text – only messages of old. Today, e-mail advertisement uses animation interactive links, streaming video and personalized audio messages to reach out and grasp attention. To enhance good response, marketers can use e-mail to reach customers who request them.

3) Voice Mail- Some marketers have set up automated programmes that exclusively target voice mailboxes and answering machines with prerecorded messages. These systems target homes between 10 am and 4 pm and businesses between 7 pm to 9 pm when people are least likely to answer. According to Kotler and Armstrong (2005) if the automated dialer hears a life voice, it disconnects.

These new forms deliver direct mail at incredible speeds compared with the post office's snail mail pace. To avoid these mails being presented as junk mails, marketers must carefully identify appropriate targets so as not to waste the company's money and recipient's time. Direct marketing has passed through many stages. The stages are carpet bombing, data base marketing, interactive marketing, real-time personalized marketing and lifetime value marketing.

1. Carpet Bombing: Direct mailers gather or buy as many names as possible and send not a mass-mailing.

2. Database Marketing: Direct marketing mine the database to identify the prospects who would have the most interest in an offer.

3. Interactive Marketing;- Direct marketers include their telephone numbers and Web addresses, and offer to print coupons from the website. Recipients can attract the company with questions. This, the company uses it to up-sell, cross-sell and make their relationship deeper.

4. Real-time personalized marketing;- In direct marketing, marketers know enough about each customer to customize and personalize the offer and message.

5. Life-time value marketing;- Direct marketers develop a plan for lifetime marketing to each events and transactions.

Barriers to Utilization of ICT for entrepreneurship development

Despite the benefits, of ICT numerous barriers exist that make it difficult for enterprises to embrace these new technologies.

1. Lack of network infrastructure and internet-related services
2. Lacks of reliable legal and regulatory differences also impede cross-border transactions
3. Policies that will affect the adoption and use of e-business strategies include those designed to expand and improve the quality of network infrastructure, legal and regulatory environment, foster technological diffusion and create a favourable business environment.
4. Costs of developing and maintaining e-business system, network infrastructure, enterprises lack of information on applicability of ICT
5. Lack of reliable and accessible physical telecommunications infrastructure



6. Telecommunications monopoly, associated with overly restrictive regulations and high costs.
7. Lack of interregional networking and cooperation.

Way Forward

1. Akwalbom state Government should provide good policies for enterprises to thrive.
2. Akwalbom state Government should provide infrastructure that promote the utilization of ICT.
3. Entrepreneurs should embrace ICT to ease the operation of their businesses.

Conclusion

From the foregoing, it can be deduced the advent of ICT is a blessing to all spheres of life, especially the economic sector. ICT has the potential 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. ICT has enormous potentials to assist economies in achieving specific economic development goals. ICT has the ability to improve communication and enhance the exchange of information and the role of communication in the success of any enterprise.

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