

Creation of ICT Enabling Business Environment to Enhance Entrepreneurship in South-East Nigeria

Nkechi Mercy Okeke, Ann Ebere Okechukwu, Iheanyichukwu G. Ozurumba, Polycarp M.D. Okeke, Nwakaego Ebele Ekwealor, Stella Chioma Nwizu, Uzoamaka Lucynda Koledoye, Mary Chinyere Okengwu and Beatrice N. Onah

Department of Adult Education and Extra-Mural Studies, University of Nigeria Nsukka, Enugu State, Nigeria

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Abstract: The purpose of the study was to determine the extent to which creation of ICT based enabling business environment enhances entrepreneurship in South-East, Nigeria. Three research questions were posed to identify the extent to which regulations, finance and training are utilized in the creation of ICT enabling business environment, to enhance entrepreneurship. One null hypothesis tested at 0.05 level of significance guided the study. The design used for the study was a descriptive survey and the instrument was a structured questionnaire. The population of the study was all the 1251 registered entrepreneurs of medium and large scale enterprises in the private sector, from which a sample of 723 respondents was drawn using a proportionate stratified random sampling technique. Mean and standard deviation were used in analyzing the data collected for the research questions and real limit of numbers was used to judge the responses as to whether they were high or low. The t-test statistics were used to test the hypothesis. Findings of the study showed that regulations, finance and training are utilized to a high extent in the creation of ICT enabling business environment to enhance Entrepreneurship in South-East, Nigeria. The null hypothesis of no significant difference in regulations was further accepted. Based on these findings, recommendations were made which include that the government should sustain the reduction of tax on internet facilities to promote the purchase of internet resources by entrepreneurs, the government should provide soft loans to entrepreneurs to enable their business benefit from greater ICT diffusion, educational institutions should incorporate digital courses at all levels of education to develop ICT compliant entrepreneurs and staff and entrepreneurs should organize on-the-job training and offer opportunities for in-service training to their staff to make them more competent in the use of ICT.

Corresponding Author:

Nwakaego Ebele Ekwealor
*Department of Adult Education and Extra-Mural Studies,
University of Nigeria Nsukka, Enugu State, Nigeria*

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INTRODUCTION

In the 1980's and 1990's, there was a growing appreciation of the importance of the economic environment which included the general burden of taxation and the cost of essential services. At the level of the firm, the increasing importance of human resources and of new and improved technology and innovation has come to centre stage. Lall^[1] stated that a business environment can be seen from a policy perspective. This according to the author, means that while macro policies are needed which include ensuring a stable currency and exchange rates, controlling inflation, promoting open markets by gradual cuts in tariff rates, providing effective infrastructure and protecting property rights, successful industrial development is based on market-friendly measures for increasing efficiency and interaction of meso-level institutions. These measures should follow a decentralized, flexible, bottom-up and tailor-made approach. UNESCO^[2] holds that creating an enabling environment means addressing holistically, the various policy, legal, market and social considerations that interact both at domestic and global levels to create fertile conditions for ICT-based business.

In the past entrepreneurs use obsolete but cheaper technologies such as the typewriter, cyclostyling machine and post office services in their enterprises. The current day of ICT where entrepreneurs desire faster and speedy operations, these are filled with disadvantages because they may not offer an enabling environment for businesses to compete with their counterparts worldwide. However, these are opinions that this study has set out to verify.

The importance of enabling environment was recognized in the Declaration and Action Plan of the first phase of the World Summit on the Information Society^[3] which emphasized that a trustworthy, transparent and non-discriminatory environment was essential for the use and growth of ICTs in the developing world, broadband is of important access to facilitate the contributions of ICT to economic growth. As noted by OECD^[4] that broadband not only satisfies communication needs between individuals, it provides a needed platform for many application and offers a wide range of positive externalities which have the potential to support and accelerate development, e.g., in health, education and commerce.

Bartelsman and Hinloopen^[5] further stated that the diffusion of ICT may help establish networks which produce greater benefits which is 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. ICT can improve enterprise efficiency and widen market contact globally. The use of ICT is converting the performance of modern business by allowing faster and speedy flow of information. The access to and use of ICT by enterprises will create job, yield greater profit and allow a rise in the standard of living.

ICT has been of great use to reduce the rate of risk in business and transportation. Phone and e-Mail have made communication easier both within and outside the enterprise. Donner^[6] said that the internet remains a great place to gather information about competitors, find new products, communicate with customers via. e-Mail, order supplies, advertise and to conduct a myriad of other formal business processes. These functions are spreading now to the developing world as a range of factors such as multilingual websites, increasingly reliable connectivity, revised e-Commerce regulations and a growing density of users make internet-enabled businesses more realistic.

Nagy 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. For the buildup of educational, health, extension and social needs in developing countries to be addressed new technologies must be applied. In the face of notable contributions of ICT in productivity, competing in time and access to markets, developing countries cannot do without ICT in order to meet up in the global economy.

According to Anonymous^[7], recent innovations in web-based ICT technologies mean that the provision of software-based services becomes a real opportunity for economic growth for both small and large enterprises as the use of the internet becomes more and more pervasive. Such services will increasingly be provided through service providers that have the necessary networks and ICT infrastructure to host web services for many companies and provide access on a metered pay-as-you-go basis. New systems architecture, new web software and high-speed networking enable all this to happen on much more favourable economic terms, thus, providing a real incentive for utilization by enterprises.

Okeke^[8] identified significant contributions to entrepreneurship. These include: facilitating the transfer of technology; stimulating a redistribution of wealth and

income within societies in economically positive ways; breathing vitality into the life of large corporations and governmental enterprises; making enterprises more competitive and thereby reducing both static and dynamic market influences; creating new markets and facilitating expansion into international markets.

Entrepreneurship can boost production, innovation, dynamic and global completion. More so, Okeke^[8] advanced 5 reasons why Entrepreneurship and Technological Innovation (ETI) should be considered important for Nigeria and Africa as a whole. These reasons in their view include that:

- ETI is an effective factor that can lead to the development of the poor regions of the community.
- ETI can create a dynamic private sector that will diversify the national socio-economic structure and reduce the need for government participation
- ETI does not require extensive government planning and the creation of much new organizational structure
- ETI is consistent with the concept of appropriate technology and self-reliant development
- Development agencies have an interest in ETI

Metcalf, etc., maintained that entrepreneurship capacity refers to the introduction of new productive combinations and innovations acting as driving forces which continually create new competitive advantages and opportunities for profit and growth. Fatma pointed out enterprises as a dynamic force for export development, sustained economic growth and job creation. Enterprises stimulate private ownership and entrepreneurial skills. They are flexible and can adapt quickly to changing market demand and supply conditions. They generate employment, help diversify economic activities and make significant contributions to export and trade.

Furthermore, OECD^[9] pointed out that much is being done to improve the environmental performance of industry through policies which induce reductions in the general burden of taxation and cost of essential services. Enterprises tend to be less aware of environmental externalities and of the legislation that governs their activities. Besides, enterprises have fewer resources to invest in environmental improvements and management tools that could make their operations more sustainable. According to them, enterprises can fill market niches in the development and sale of environmental goods and services. It becomes a formidable challenge to involve the full range of enterprises in working towards sustainable solutions. This is where the ICT advances come in to provide the means for governments and other stakeholders to reach, inform and influence enterprises.

Research questions:

- To what extent are regulations utilized in the creation of ICT enabling business environment to enhance entrepreneurship?
- To what extent is finance utilized in the creation of ICT enabling business environment to enhance entrepreneurship?
- To what extent is training utilized in the creation of ICT enabling business environment to enhance entrepreneurship?

Hypothesis: There is no significant difference in the mean rating of entrepreneurs of medium and large scale enterprises on the extent to which regulations are utilized to create ICT enabling business environment.

Literature review: A healthy business environment is very critical for enterprises to thrive and benefit from ICT. According to OECD^[10] business environment includes a transparent, an open and competitive business framework, 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. In the same vein, Porter^[11] pointed out that:

The effectiveness of enterprises depends on the business environment and the sophistication of company operations including inter-firm cooperation. Getting the business environment right can be looked at from the policy and institutional point of view: are all the institutions and laws in place to create an enabling business environment? Or looked at from the enterprise level: what policies and support structures are necessary for enhancing their capacity? p.5

UNCTAD^[2] followed-up with a list of government policies such as:

- The attraction of knowledge investment which must be among the highest priorities on government policy for growth
- Promotion of knowledge creation and knowledge communities through tax, subsidy and market incentives and validating accounting rules to reflect human capital stock creation
- Promotion of lower transaction costs linking regional and central government agencies with efficient information systems
- Promotion of all IT software programming workshops and seminars that benefit enterprises and agro-industrial sectors

- Promotion of better knowledge transfer systems together with the telecommunications industry
- Promotion of inferential treatment of all purchases of computer hardware of enterprise business located in special economic zones and industrial parks
- Technology and knowledge organizations, so as to serve as breeding grounds for future IT professionals
- Promotion of access to Information Technology (IT) and learning techniques to all population sectors from their first years of schooling

On the other hand, UNCTAD observed that Information and Telecommunication Technology (ITT) is very critical to enterprise development in that it brings access to many support centres and the global market. It further stated that:

Different types of ITT programmes have been prepared, e.g., modernizing ITT facilities for credit cooperatives and the centre for the development of enterprises. The government is also providing assistance programmes to enterprises in applying ITT. Private ITT networks are also growing. (p.135)

On the role that governments should play in view of the enterprise role in economic restructuring, OECD^[9] suggests that they should above all:

Promote entrepreneurship, facilitate firm start-up and expansion and improve access to venture capital and other types of financing. The governments are now fostering the development of secondary stock markets to allow easy entry and exit for venture investors, easing taxes on capital gains and other dividends and allowing greater use of stock options as compensation in small firms (p.6)

OECD^[10] emphasized that reducing the regulatory burden on firms can be one of the greatest spurs to entrepreneurship. Problems stem from regulatory systems developed to serve the needs of large firms and the cumulative pressure of regulatory requirements. Enterprises identify high compliance costs, extensive and complicated paperwork and economic regulations that prohibit certain activities as the most onerous burdens they face. Countries are now reducing paperwork and bureaucracy, minimizing administrative burdens, streamlining procedures and reducing compliance costs for enterprises. At the same time, the relatively weak bargaining power and generally poor liquidity of enterprises make them strongly dependent on regulatory frameworks that guarantee the reliability of transactions and secure orderly playing rules in the economy.

On the issue of environmental improvement, OECD^[9] is of the opinion that enterprise clusters should be encouraged in order to enhance enterprise performance and competitiveness. All things being equal, small firms working in clusters can attain the advantages of large firms while retaining the benefits of specialization and flexibility. Small-firm linkages can be fostered by local, regional and national governments through the frameworks for public or private and inter-firm partnerships. Generally, government involvement in building clusters is indirect since it is concerned mainly with supporting skills development and freeing up resources while overcoming constraints to greater enterprise interaction. In the same view OECD^[12] stated that enterprise units or agencies are charged with promoting small business development by providing capital, reforming fiscal practices, reducing administrative burdens, providing management and skills training, improving information dissemination and increasing access to markets. Among the programmes to increase the technology base of enterprises are the provision of research and development, tax credits, loans or grants for innovative activities and technology diffusion schemes.

To create an enabling environment conducive to the growth and development of enterprises, the International Labour Organization (ILO) in Okeke^[8] stated that the members should:

Adopt and pursue appropriate fiscal, monetary and employment policies to promote an optimal economic environment, in checking inflation, interest and exchange rates, taxation, employment and social stability. Establish and apply appropriate legal provisions as regards property rights, including intellectual property, location of establishments, enforcement of contracts, fair competition as well as adequate social and labour legislation. Improve the attractiveness of entrepreneurship by avoiding policy and legal measures which disadvantage those who wish to become entrepreneurs

Again World Bank^[13] stated that public policy is the tool by which the government can help to create an environment and remove barriers for businesses to adopt ICT. The government should take the following steps to provide a supportive legal and regulator environment for e-Business through:

Creating appropriate environments for ICT access and use, develop e-security policies and programmes, provide supportive legal and regulatory environments, enhance technological diffusion and overcome market failures and provide and support ICT training for skill development

In the same vein, Connect Africa Foundation^[14] stated that African countries can undertake a series of concrete steps and adopt key regulatory measures that promote affordable, widespread access to a full range of broadband ICT services. These steps include technology and service neutral licensing or authorization practices, allocating spectrum for multiple, competitive broadband wireless service providers, creating national Internet Exchange Points (IXPs) and implementing competition in the provision of international internet connectivity. This will help develop an enabling environment to attract investment and make affordable access to ICT more widely available.

Stressing the same points, OECD^[15] enumerated the following steps to create a healthy business environment for ICT adoption in firms. They include:

- Network infrastructure: encourage rollout and use of quality infrastructure at affordable prices
- Digital production and information services: these are increasingly a significant part of economic activity that offer important opportunities to firms
- Skill upgrading: lack of ICT skills and business skills are widespread impediments to effective uptake once adoption decisions are made
- Information: firms may lack objective information regarding the benefits and costs of adopting ICT
- Government on-line: on-line provision of government information and services can increase the efficiency and coverage of public service delivery to firms

In today's highly technological environment, encouraging industrial technology, information and telecommunication technology is 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 entrepreneurs and staff will create an enabling business environment for ICT utilization in enterprises.

MATERIALS AND METHODS

The study used a descriptive survey research design. The area of study is South-East Zone of Nigeria comprising of the present Abia, Anambra, Enugu, Ebonyi and Imo States. The population is 1251 registered entrepreneurs of medium and large scale enterprise in South-East Zone of 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 14.

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 0.82 which shows that the instrument is reliable. The researcher employed the services of eight 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 was adopted. The t-test statistics were used to test the hypothesis at 0.05 level of significance.

RESULTS

To what extent are regulations utilized in the creation of ICT enabling business environment to enhance entrepreneurship? Items 1-5 have their means within the range of 2.50-3.49. This means that entrepreneurs utilized regulations to a high extent in creating ICT enabling business environment (Table 1).

To what extent is finance utilized in the creation of ICT enabling business environment to enhance entrepreneurship? Items 6-9 is within the mean range of 2.50-3.49. This means that entrepreneurs utilized finance to a high extent to create ICT enabling business environment (Table 2).

To what extent is training utilized in the creation of ICT enabling business environment? Item 11 has the highest mean score. Its means falls within the range of 3.50-4.00. This means that entrepreneurs utilize training to a very high extent to create ICT enabling business environment (Table 3).

On the whole, a grand mean of 3.20 was calculated for the entire cluster, showing that ICT is utilized to a high extent by entrepreneurs in the South-East, Nigeria in creating enabling business environment.

Hypothesis: There is no significant difference in the mean rating of entrepreneurs of medium and large scale enterprises on the extent to which regulations are utilized to create ICT enabling business environment.

Table 4 shows that the calculated t value of -1.75 was significant at 0.08 and not 0.05. This is because $0.08 > 0.05$. The hypothesis was not rejected. Therefore, there is no significant difference between the mean scores of the entrepreneurs of medium and large scale enterprises on the utilization of regulations to create ICT enabling business environment.

Table 1: Mean scores of entrepreneurs on the extent of utilization of regulations to create ICT enabling business environment

Items	\bar{X}	SD	Decision
1. Online regulations and policies for enterprise registration with Corporate Affairs Commission are less cumbersome and demanding	2.76	0.75	HE
2. Trade regulations provide fair treatment for effective online cross-border business	3.11	0.96	HE
3. Existing internet policies favour improved computer and internet diffusion in the country	3.32	0.84	HE
4. Favourable tax and trade policies have been adopted to boost the volume of online business	3.30	0.85	HE
5. Penalty on issues related to cybercrimes, cybersecurity and spam has been used to reduce online business crime	3.18	0.88	HE

Table 2: Mean scores of entrepreneurs on the extent of utilization of finance to create ICT enabling business environment

Items	\bar{X}	SD	Decision
6. Lowering the cost of website maintenance has created opportunities for entrepreneurs to assess internet resources	3.36	0.84	HE
7. Lowering the cost of computers boosts the use in enterprises	3.30	0.84	HE
8. Developing secure e-payment services has enhanced online transactions	3.28	0.82	HE
9. Enterprise financing has reduced the burden of loan on entrepreneurs	3.29	0.83	HE

Table 3: Mean scores of entrepreneurs on the extent of utilization of training to create ICT enabling business environment

Items	\bar{X}	SD	Decision
10. Awareness building among staff through training has eliminated non-utilization of ICT	2.69	1.12	HE
11. e-Commerce education of personnel has made them more competent in ICT business	3.54	0.70	VHE
12. Provision of business skills education has improved staff operations in a business	3.31	0.86	HE
13. Sponsorship for computer training of staff has created an opportunity for on-the-job experience	3.20	0.92	HE
14. Training on the provision of business consulting services has offered an opportunity for higher knowledge of new technology	3.29	0.83	HE

Table 4: t-test of difference between the mean scores of entrepreneurs of medium and large scale enterprises on the utilization of regulation to create ICT enabling business environment

Enterprises	N	\bar{X}	SD	df	t	Sig. (2-tailed)	Decision
Medium	277	3.13	0.92	510	-1.75	0.08	Not significant
Large	235	3.28	0.92				

DISCUSSION

The effectiveness of enterprises dependson the business environment. The finding shows that entrepreneurs utilize ICT to a high extent to create enabling business environment in South-East, Nigeria.

The finding on regulations shows that regulations motivate entrepreneurs to plunge into the use of ICT without fear or reservation. Regulations are the government evidence of support to entrepreneurs use of ICT. This further ensures entrepreneurs of security in the use of ICT in their enterprises. The finding agrees with UNESCO^[2] which holds that creating an enabling environment means addressing holistically the various policy, legal, market and social considerations that interact both at domestic and global levels to create fertile conditions for ICT-based business. This result further agrees with World Bank^[13] which noted that public policy together with ICT are the tool by which the government can help to create enabling business environment.

The finding on finance reveals that entrepreneurs utilize finance to a high extent to create ICT enabling business environment. This is not surprising because finance facilitates the provision of ICT infrastructures to improve the entrepreneurial performances in enterprises. The finding is in line with the opinion of Hallberg and Bond^[16] which emphasized that without access to finance, entrepreneurs will not be able to make the necessary

technology investments to innovate or even update their production process or products, so that, they can compete in global markets.

Next to finance is the findings on training which stated that entrepreneurs utilize training to create ICT enabling business environment. The 3.54 score on educating personnel on e-commerce is clear evidence. This is because skill upgrading is the key to improvement in enterprises. Training is relevant at any stage as new technology emerges from time to time after the initial schooling. This finding is supported by the statement of Hallberg and Bond^[16] that enterprises in developing countries also need access to information and skilled labour in order to develop such technology capabilities. Also, OECD^[15] laid more emphasizes on this finding by saying that lack of ICT skills and business skills are a widespread impediment to effective uptake once adoption decisions are made.

Hypothesis: There is no significant difference in the mean rating of entrepreneurs of medium and large scale enterprises on the extent to which regulations are utilized to create ICT enabling business environment.

Table 4 shows that the calculated t-value of -1.75 was significant at 0.08 and not 0.05. This is because 0.08>0.05. The hypothesis was not rejected. There is no significant difference between the mean scores of entrepreneurs of medium and large scale enterprises on

the extent of utilization of regulations to create ICT enabling business environment. The response is consistent with OECD^[10] view that a healthy business environment is fundamental for firms to thrive and benefit from ICT. In their view, this includes a transparent, an open and competitive business framework, independent rule of law for all firms, easy set up of businesses, simple and accessible corporate regulation, equal and stable legal treatment for national and cross-border transactions.

RECOMMENDATIONS

Based on the findings in this study this researcher would want to recommend as follows:

- The government should sustain the reduction of tax on internet facilities to promote the purchase of internet resources by entrepreneurs
- The government should provide soft loans to entrepreneurs to enable their business benefit from greater ICT diffusion
- Educational institutions should incorporate digital courses in all levels of education to develop ICT compliant entrepreneurs and staff
- Entrepreneurs should organize on-the-job training and offer opportunities for in-service training to their staff to make them more competent in the use of ICT

CONCLUSION

The study made it clear that regulations, finance and training are of strategic importance to facilitate the contributions of ICT to create enabling business environment. Contemporary technology makes it possible for developing nations to rapidly deploy sophisticated ICT networks and applications. This study has attempted to give policymakers ideas on issues to address to enable ICT led growth in South-East, Nigeria.

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