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ASSESSMENT OF THE EFFECT OF INFORMATION AND COMMUNICATION TECHNOLOGIES ON THE ECONOMIC ACTIVITIES OF COOPERATIVE SOCIETIES IN SOUTH EASTERN NIGERIA

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ABSTRACT: *Information and communication technology (ICT) have become an indispensable part of contemporary world. The cooperative sectors globally have equally being affected in a number of ways. This paper examines the effect of information and communication technology on the economic activities of cooperative societies in south eastern zone of Nigeria. In line with the objectives of this study, this work utilizes primary sources of data. The primary data were collected through interviews, questionnaires and focus-group discussions and analyzed using descriptive statistics. The main result of the study indicated that information and communication technologies have a significant positive effect on the cooperative services and influenced their level of economic activities. It was concluded that the application of information and communication technology enhances cooperative society's efficiency, service delivery and increase membership patronage. Moreover, this paper recommended that the management of cooperative societies should strengthen investment in information and communication technologies so as to facilitate speed, convenient and accurate service delivery.*

KEYWORDS: ICT, Cooperatives Societies, Service, Indispensable, Economy.

INTRODUCTION

Information communication technology (ICT) is a generic term referring to technologies that are used for collecting, storing, editing and communicating information in various forms. It can also be seen as any technology that is used to produce, organize and distribute information.

There is no gain saying the fact that information and communication technology are the nervous systems of any contemporary society. Daniels (2002) in his study, assert that Information and Communication Technology have become within a very short time, one of the basic building blocks of modern society. Hence, many countries now regard the understanding of ICT, mastering of its basic skills and concepts as a major contributor to organizational performance. Information and Communication Technology have led to a lot of achievements and innovations in different sectors of the economy including cooperative societies.

Narayan and Petesch (2009) noted that co-operatives are seen in many countries as an important social and economic actor in national economies, thus making not only personal development a reality, but contributing to the well-being of entire populations at the national level. It has also been observed that the cooperative sector has evolved in the use and application of Information and Communication Technologies in their day to day activities as technology shift from one level to another. However, the use of information and communication technologies was initiated by the cooperative societies in order to cope with the growing competition in offering their services and laying out the strategies. The utilization

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of ICT has thereby played a significant role in the performance of SACCOs' service delivery and management in an effective and efficient manner.

However, the growth of the ICT sector in Cooperative societies in Nigeria has been significantly influenced by local and global trends. This can be evaluated in terms of number of fixed and mobile telephone lines, the number of computers and services, saving and credit cooperative-link services, the number of internet users, broadcasting stations and market share of each one of them.

It is undisputed that cooperatives societies are often weaken due to lack of enabling environment conducive enough to their development and sustainability. Hence, cooperative members' access to and use of technologies should be improved, in order to increase their efficiency. This can help in several dynamic ways to bridge gaps in livelihood opportunities by providing localized and relevant information. Ultimately, they can also help in achieving poverty reduction and fulfill social development goals.

The evidences from past studies have shown that when strong rural organizations such as Producers Organizations and cooperatives provide a full range of services to small producers, they are able to play a greater role in meeting a growing food demand on local, national and international markets.

In particular, cooperatives societies can function more efficiently by using ICT and providing a series of benefits to members, such as: (i) Enhanced connections between members (i.e. through cooperatives, market information and technical know-how are shared, and the recipients remain informed about the cooperative's activities.) (ii) Improved accounting and administration: cooperatives societies are often responsible for handling very large amounts of money that may represent the cash income of thousands of cooperators. Efficient record keeping allow cooperatives to serve their members better and the transparency offered by computerization and other technologies enhances trust. Cooperatives that have invested in modern management and member information systems can improve their image to attract high-quality staff and gain members' trust and confidence.

In an emerging market economy like Nigeria, the cooperatives' ability to continuously upgrade functions, processes and products becomes a matter not only of innovativeness but ultimately one of survival. The observation of Borzaja and Psovaja (2008) that unless the cooperatives can meet this competition, they will end up in down-turn spirals of decreasing volumes of business, deteriorating profitability of their operations and inability to provide useful services to their members. This has implications for the development of e-accounting theories and principles for globalised cooperative operations. The paper remains relevant by assessing the effect of information and communication technologies on the economic activities of cooperatives societies in south-eastern zone of Nigeria.

Conceptual Issues and Review of Related Literature

Information and Communication Technologies (ICTs) are seen as major tools with the potential of fundamentally changing business behaviour and company strategies. This connotes that technology has changed the way people live, work and learns. The use of technology in cooperative societies is one of the main challenges for cooperative policy makers.

Information and Communication Technology is the practical application of knowledge in the areas of information and communications (Heeks, 2006). In the views of Roman and Colle

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(2008), it is about information and communication and not just about computers, internet and telephone lines. According to Angello & Wema (2010), Information and communication technologies are the procedures, methods and tools that aid the process of accessing information electronically and eventually transmitting it to others for the purpose of communication.

In addition, Asnafi (2005), opines that information and communication technology are the technologies that help us record, store, process, retrieve, transfer and receive information. It is imperative to know that IT and ICT are dependent on each other. Information system and technology mostly involves electronic processing of transactions or data in order to achieve a specific purpose. Information system as driven by Information Technology consists of hardware, software that perform data tasks, such as capturing, storing, retrieving, manipulating and reporting data (Alter, 1996).

Until recently, information was not considered an important asset for firms especially cooperative societies. The management process was considered a face-to-face, inter personal act and a far-flung global coordination process (Laudon and Laudon, 2000). It is now widely recognized that understanding information and technology is essential for cooperative society's activities, managers' supervision and successful results. They affect how cooperators carry out their economic functions, how managers decide, how senior managers plan and in many cases, what products are produced and how they are produced. They play a strategic role in cooperative sector and other sectors at large.

Information and Communication Technologies such as computer terminals, e-mail, internet and their applications have become the major drivers of innovation, growth and social change. Laudon and Laudon (2000) recognize that there is a growing interdependence between business strategy (rules and procedures) and information systems (software, databases and telecommunications). Powerful computers, software and networks including internet, have helped organizations to become more flexible, eliminate layers of management, separate work from location and restructure workflows, giving new powers to both line workers and management. According to Alter (1996), information system enables new forms of organization, new ways to work and new ways to compete. They can give new meaning to everyday things such as money, books, offices, advertisement and entertainment. These possibilities offered by technologies for facilitating and optimizing the communication and information exchange at the workplace are countless.

The use of ICTs can be very valuable for cooperative business. However until recently the role of the cooperative societies in these developments has been more or less ignored in policy making and research. The point is that these cooperative societies were seen as being no different from large enterprises in their adoption and use of ICTs. It is only in the last decade that policy makers and ICT companies became interested in the role of cooperative societies in the information economy.

Figures showed that company size is one of the significant factors influencing ICT adoption and use. International organizations, African and European authorities and national governments began to realize that these cooperative societies, being more or less a major contributor to the economy progress, could not be left out of new technological developments. This has led to a multitude of stimulation programmes aimed at these smaller cooperative societies. In addition the private ICT sector saw a chance for extending their client base by incorporating the cooperative group, which was formerly seen as being insufficiently

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profitable. This has enable cooperators and cooperative enterprises to capture economic opportunities by increasing processes efficiency, promoting the participation in expanded economic and business networks, and creating employment opportunities.

Cooperatives societies according to ICA (2004) is "…an autonomous association of persons united voluntarily to meet their common economical, social and cultural needs and the aspirations through a jointly owned and democratically controlled enterprises".

Cooperative societies have recently embraced the use of technology to deliver services to members. Most notable has been the connectivity to Sacco Link network, ATMs and mobile delivery channels by a majority of the Sacco societies. The use of mobile phone to deliver financial services has also been easy since software vendors in the Sacco subsector partner with the telecommunications companies to integrate mobile solutions to their core systems. Hence, a number of Sacco's are now able to have their members withdraw or deposit money into the account, make enquiries on the accounts, get notifications on their loans as well as pay for bills. This is a significant development as it has allowed members access services conveniently without the cost of travelling to withdraw or deposit cash.

However, the *theoretical framework* for this study is based on the Voluntary theory of cooperative society and the activity theory.

A number of empirical works suggest that organizational changes may improve economic activities of firms especially cooperative societies through their reinforcing relationship with information and communication technology.

Dent and Powell (2007) in their study find that ICT alone has not produced sustainable performance advantages, while some firms have gained competitive advantages by using these technologies with complementary human and organisational resources.

Nwachukwu (2003), in his study on the cooperative development finds that there is a dire need to transfer technology from the technology developers to the technology utilizers through effective communication technology.

Gretton et al. (2004) obtain empirical evidence of the positive impact of complementarities between the use of ICT and human resources, innovative business practices, and intensity of organizational change on the productivity growth of Australian companies.

Chadwick (2003) opined that agricultural development in Nigeria has been hampered by how level of agricultural information exchange. By implication, the outstanding problem lies in the fact that current research findings do not reach the farmers as and when due.

Hanisch, (2009) observed that current examples of real life cooperatives of the western world and those in developing countries which act on an international level show that linking up regional membership organizations with globally integrated value chains may attenuate cooperative principles and create incentives to change an organization by laws up to a point where most cooperative principles are given up.

Rao, Metts and Mong (2003) in their study of the impact of ICT, observed that the 1990s witness the proliferation and hyper growth of internet and internet technologies, which together are creating a global and cost-effective platform for business to communicate and conduct commerce.

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Crespi et al. (2007) examine the relationships between productivity growth, ICT investment and organizational change in UK firms, and their results support the idea that gains from IT need re-organization to produce measured productivity growth.

In a comparative study, Arvanitis and Loukis (2009) offer empirical evidence of the positive impact of ICT capital, human capital and new organizational practices on labour productivity in Greece and Switzerland, while they observe that the Swiss firms are more mature and more efficient at combining these new production factors.

Asaolu (2004) also argued that the cooperative society is potentially an important instrument of social transformation, especially in the rural areas as they have proved to be useful in achieving increasing domestic production of food, industrial raw materials, manufactured products and equitable distribution of farm inputs, farm products and other commodities that are central to MDGs.

METHODOLOGY

The research was designed to examine the effect of information and communication technologies on the economic activities of cooperative societies in the south eastern zone of Nigeria and as such adopts the survey method. According to Igweonyia (2002), this method is desirable when a study is built on fact finding. Hence, this is considered the most appropriate method for this study because it focuses on a specific population and hence gets quick and immediate information. The researcher made use of personal observation, interview and questionnaires.

Area of the Study

The area of study consists of the selected functional cooperative societies located in the south eastern zone of Nigeria comprising of fives state namely: Abia, Anambra, Ebonyi, Enugu and Imo

Population and Sample Size

The population of study consists of 15 cooperative societies which were arrived by selecting 3 functional cooperative societies from each of the 5 states located in the south east zone of Nigeria.

The total population (personnel) consisting of 850 were also members of the above selected cooperative societies.

However, the sample of the study was randomly selected by ballot method and was restricted to 748 members of the cooperatives societies in south east zone of Nigeria which represents more than 85% of the entire population.

A thirty six items self-made questionnaire was used to elicit information from the respondents where they were required to indicate their preferences on a five-point likert format of Very Great Extent, Great Extent, Undecided, Little Extent and Very Little Extent. The mean of responses was judged as follows: 0 – 0.49 = UD, 0.5 -1.49 = VLE, 1.5 – 2.49 = LE, 2.5 – 3.49 GE, 3.5 and above = VGE. Accordingly, 748 questionnaires were distributed, 700 were returned and only 48 were un-returned.

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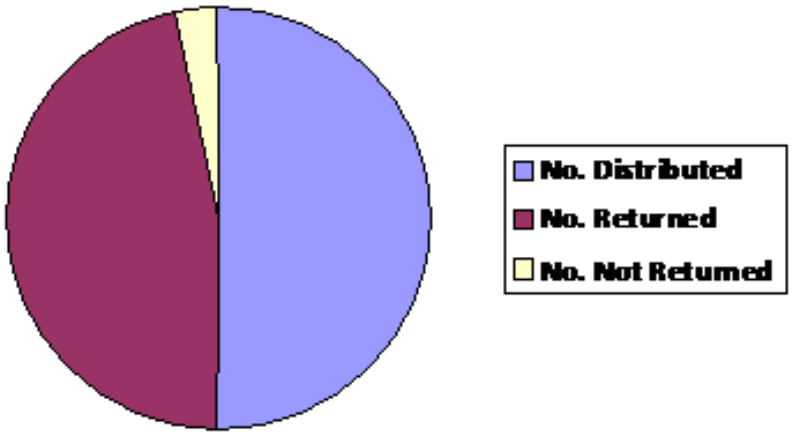
RESULTS AND DISCUSSIONS

The Findings of this study was presented in figures and tables using percentage and mean for the analysis.

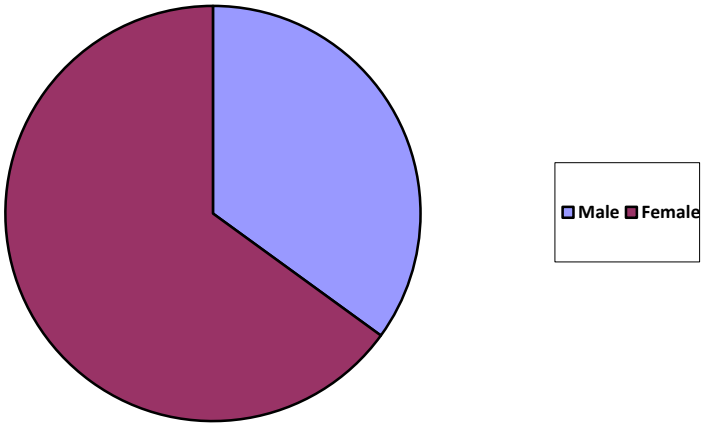
Fig. 1: Pie Chart of Questionnaire Distributed



Source: Field Survey 2016.

From the above figure 700 respondents representing 94% responded while 48 representing 6% gave no useful responses.

Fig. 2: Pie Chart of Gender Distribution of the Members



Source: Field Survey 2016.

Fig. 2 above indicates that that 245 cooperators comprising of 35% of the total respondents are male while 455 members making up 65% of the total respondents are female. This implies that the cooperators were predominantly female.

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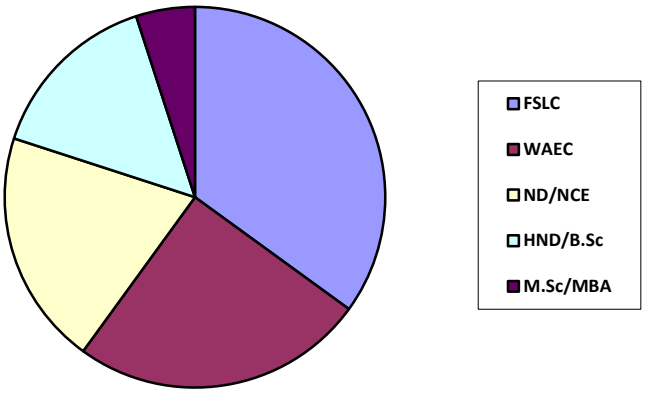
Fig. 3: Educational Qualification Distributions of the Members.



Source: Field Survey 2016.

Fig. 3 revealed that 245 members representing 35% of the respondents were holders of First School Leaving Certificate (FSLC) and below, while 175 representing 25% were holders of WAEC or its equivalent. The table also

showed that 140 representing 20% of the respondents were holders of OND/NCE certificates, 105 members representing 15% were holders of HND/B.SC and 35 members representing 5% have MSC/MBA and its equivalent. High educational background of members enhances cooperative economic activity delivery because various ICT products such as teleconferencing, email, audio conferencing etc. are having high relevance to education.

Table 1: Occupational Distribution of the Members

Occupations	**Number of Respondents**	**Percentage (%)**
Farmers	245	35%
Artisans	112	16%
Petty Traders	140	20%
Transporters	98	14%
Civil Servants	105	15%
Total	**700**	**100%**

Source: Field Survey 2016.

The above table revealed that 245 members representing 35% of the respondents are farmers, 112 representing 16% of the respondents are artisans, 140 representing 20% are petty traders, 98 representing 14% are Transporters and 105 representing 15% of the respondents are civil servants.

This shows that majority of the cooperators are farmers, petty trader, artisans and civil servants while the least group are the transporters.

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Table 2: Distribution of responses on the possession of computer and internet facilities by cooperatives societies.

Responses	Number of Respondents	Percentage (%)
Possession of Computer by Cooperative Organization	525	75%
Functional E-mail and Website by Cooperative Organization.	175	25%
Total	**700**	**100%**

Source: Field Survey 2016.

Table 2 indicates that that 525 cooperators comprising of 75% of the total respondents are of the view that they have computer facilities in their cooperative organization while 175 members making up 35% of the total respondents said that they have functional emails and website in their societies. This implies that some of the cooperative societies in the south east zone of Nigeria have been using ICT in the economic activities.

Distribution of respondents on the utilization of ICT in Cooperative Societies.

Table 3: Mean Responses for the nature of transaction in cooperative organization

Item	Mean	Interpretation
Cash	2.6	Great extent
Bank	3.8	Very Great Extent
Online	2.3	Little extent
Grand	**2.9**	**Great extent**

Source: Field Survey, 2016

The table above shows the mean of 2.3 indicating that to a little extent the respondents opined that members of cooperative societies has been utilizing the online process in their economic activity. This implies that they still lack functional website that provides connectivity for the cooperators to operate online.

Table 4: Mean Responses for to what extent do cooperative staff understand Information and communication exposure.

Item	Mean	Interpretation
Use of Computer only	3.7	Very Great extent
Computer/Online/Internet	3.1	Great Extent
Computer/Mobile Phone/ Internet	3.4	Great Extent
All of the above	2.9	Great Extent
Grand	**3.28**	**Great extent**

Source: Field Survey, 2016

The table above indicated that the grand mean was 3.28. This implies that cooperative staff have to a great extent been exposed to the knowledge of information and communication technologies.

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Table 5: Mean Responses for to what extent do members utilized the following means of information communication on cooperative services.

Item	Mean	Interpretation
Personal contact	3.7	Very Great Extent
Text Message	2.8	Great Extent
Email	2.2	Very Little Extent
Grand	**2.9**	**Great extent**

Source: Field Survey, 2016

The table above indicated that the mean for email was 2.2. This implies that cooperative members utilize email to a very little extent in cooperative services in the south eastern zone of Nigeria.

CONCLUSION

This study concludes that information and communication technologies have effect on the economic activities of cooperative societies in the south east zone of Nigeria. The effects can be felt by the cooperative societies in terms of their efficiency in management, service delivery, increased members surplus and patronage. The gaps in the utilization of information and communication technologies by the cooperative societies in the south east zone of Nigeria were further explained by our results. The result of the major finding tested showed that information and communication technologies has a significant effect on the cooperative services and influence their level of economic activities. Moreover, the findings also indicate that updating information services for cooperative societies in the south east zone of Nigeria are constrained by many factors most of which are pivoted on inadequate finance and poor access to ICT facilities.

RECOMMENDATIONS

In view of the above findings and conclusion, the following recommendations were made:

- The management of cooperative societies should strengthen investment in information and communication technologies so as to facilitate speed, convenient and accurate service delivery.
- There should be development and use of well planned collection development policy that promotes the updating of information services.
- Cooperative staff should be given proper ICT training in order to meet the quality of services needed by the members.

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