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IMPACT OF INFORMATION TECHNOLOGY ON COOPERATIVE SERVICES DELIVERY IN NIGERIA: A CASE STUDY OF SELECTED COOPERATIVE SOCIETIES IN DUNUKOFIA LOCAL GOVERNMENT AREA, ANAMBRA STATE.

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ABSTRACT
This study is centered on the impact of information technology on cooperative services delivery in Nigeria using Dunukofia Local Government Area as a case of study. Information and communication Technology (ICT) have become an indispensable part of contemporary world. The cooperative sectors globally have equally been affected in a number of ways. In line with the objectives and research of problems of this study, the study examined how information technology can influence cooperative services delivery to members and contribute to the nation's economic development. The respondents were drawn from the selected cooperative societies from each town that made up Dunukofia Local Government Area. It was concluded that the application of information and communication technology enhances cooperative society's efficiency, service delivery and increase membership patronage. Moreover, this study 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.

Key Words: Information Technology, Cooperatives, Service Delivery

Background of the Study
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 12002) 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 concept as a major contributor to organizational performance. Information and Communication Technology have fed to a lot of achievements and innovations in different sectors of the economy including cooperative societies.

Narayan and Petesch2009)noted that co-opera are seen in many countries as an important social and economic actor in national economics, 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.

However, the growth of the 1CT 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 weaker 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 b} 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 und 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 1CI and providing a series of benefits to members, such as:

- Enhanced connections between members (i.e. through cooperatives. market information

and technical know-how are shared, and the recipient remain informed about the cooperative's activities).

- 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 char have invested in modern management and member information systems can improve their image *to* attract high quality staff and gain members*' trust and confidence.

Statement of Problem

Therefore,the problems posed by this study are

- To explore the role of cooperatives in a globalised economy like Nigeria.
- To find out how Information Technology can influence cooperatives service delivery to members and contribute to the nation's economic development.

Objective of the Study

The main objective of this study is to investigate the impact of information Technology (IT) on cooperative societies. We have other objectives like:

- To determine the impact of Information Technology on cooperative services.
- To assess the impact of information Technology on Cooperative services
- To determine the problems and challenges of adopting IT Method by cooperative societies.

Research Questions

1. What is the impact of Information Technology on cooperatives services?
2. How does Information Technology influencecooperative services?
3. What are the problems and challenges of adopting IT method by Cooperatives'?

Hypotheses

Ho: information technology has no significant impact on the Cooperative services in Nigeria.

Hi Information technology has significant impact on the Cooperative services in Nigeria.

Scope of the Study

The study intends to cover selected Cooperative societies in Dunukofia

Local Government Area. The study is limited to the Impact of Information Technology on Cooperative services.

Review of related literature

Conceptual Framework

The concept of Information Technology

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 (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 chat 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 mid 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 are dependent on each other. Information system and technology mostly involves electronic processing of transactions or data in order to achieve a specificpurpose. Information system as driven by Information Technology consists of hardware, software that perform data tusks, such us capturing, scoring, 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'[1] 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 ore produced. They play a strategic role in cooperative sector and other sectors at large.

Introduction of information

Technology in Cooperative Societies

Cooperatives societies according to 1CA (2004) is "...an autonomous association of person united voluntarily to meet their common economic, social and cultural needs and the aspirations through a jointly owned and democratically controlled enterprises".

The major emphasis in Cooperative according to Akinwunmi (2006) is oneself-help, thus people cooperate because they realize that it is extremely difficult to achieve some goals by doing it alone. 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 product and equitable distribution of farm inputs, farm products and other commodities that are central to MDGs.

Onaolapo and Oladejo (2011) believes that Cooperative financing are the most practical tools to adopt to meet the needs of the people in all spheres of development. 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.

Cooperative societies have recently embraced the use of technology to deliver services to members. most notable has been the connectivity to Saeco link networks, ATMs and mobile delivery channels by a majority of 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 solution to their core systems.

Hence, a number id 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.

Theoretical Framework

Rogers Diffusion Theory (1995): Rogers states that diffusion is the proems

by which an innovation is communicated through channel overtime in a social system. An innovation is an idea or item, which is perceived as new by the individual. Accordingly, a technological innovation is a new progress or mixture of material and non- material object that result in a new item. Rogers hypothesized that innovativeness variable is normally distributed overtime. He also concluded that voluntariness, relative advantage, compatibility, ease of use, result influence the adoption of information Technology in organization.

Delone and Mclean Information System Theory (1992): Oelone and Mdetm introduced six major categories of information system success, it includes: (a) system equality (b) information quality (c) use (d) user satisfaction (e) individual impact (f) organizational impact. Each of these variables is a composite of numerous and diverse constructs and measures. They argue thatwhen measuring information system success , that system quality and informationquality impact both use and user satisfaction, the amount of use can affect user.

Empirical Studies

Dent and Powell (2007) in their study titled "Information system in organizations", they find out that Information technology alone has produced sustainable performance advantages, while some firms have gained competitive advantages byusing these technologies with complementary human and organizational resources. The study used chi-square test tool and concluded that technologies gives organizations easy way of carrying out their specified objectives, they recommended that organizations should combine human resources with technologies to effectively achieve their aim.

Nwachukwu (2003), in his study on the cooperative development, the study used Anova test tool, he concluded that there is a due need to transfer technology from the technology developers to the technology utilizes through effective communication technology. He therefore recommended that that the use of technology should be adapted in organizations for easy financial record keeping.

METHODOLOGY

Research Design

The research design to be used in this study is survey design, the research will be designed in such a way that it will give the major people to be interne wed the opportunity to provide answers to the

questionnaires raised by the study. The choice of this design was chosen due to the fact that it is flexible and best suited for gathering descriptive information. It underlying principles is to seek the opinion of individuals on a particular problem, whereby the consensus of these opinions provides the needed solution to the problem at hand. (Nwogu, 2006).

Area of the Study

The area of the study is selected cooperatives society in Dunukofia Local Government Area of Anambra Stale of Nigeria with emphasis on the Impact of Information technology on cooperative services in Nigeria.

Population of Study

The towns that made up Dunukofia Local Government Area are: Ukpo, Ifitedun, Umumachi, Umudioka, Ukwulu and Nawgu. The population of the study will cover the members of the selected cooperative societies from each town.

Towns	No. of registered cooperative Society	Name of Cooperative society selected	No. of members
Ukpo	19	Productive hands Ukpo F.M. C. S Ltd	25
Ifitedunu	16	NwanneamakaIfitedunu Multipurpose cooperative society (MCS)	45
Umunachi	20	KosisochukwuUmunnachi Multipurpose cooperative society (MCS)	48
Umudioka	23	DunukofiaFarmers Cooperative Association (FCA)	60
Ukwulu	18	NgeneUkwulu Multipurpose Cooperative Society	55
Nawgu	20	EziamakaNawgu Women Multipurpose Cooperative Society	35
			Total: 268

The population of the Study is 268.

Sample and Sampling Techniques

Name of cooperative Society selected	No. of members	Sample
Productive hands Ukpo F.M.C.S Ltd	25	5
Nwanne Amaka Ifitedunu Multipurpose cooperative society (MCS)	45	8
KosisochukwuUmunachi Multipurpose Cooperative Society (MCS)	48	9
DunukofiaFarmers Cooperative Association (FCA), Umudioka	60	11
NgeneUkwulu Multipurpose Cooperative Society	55	10
EziamakaNawgu Women Multipurpose Cooperative Society	35	6
		Total: 49

Stratified Random sampling of 18% of number of members was seleted and used which gave us 49 as the sample size.

Method of Data Analysis

Data to be generated for the study shall be collated and analyzed using tables and simple percentage, the hypothesis will be tested using Chi-square (x^2) test tool.

The formular for the x^2 is as follows:

$$X2 = \frac{\epsilon(fo-fe)}{fo} \quad 2$$

Where $fo =$ Observe frequency

fe = Expected frequency

ϵ = Summation of all items

Level of significance used is 5% i.e 0.05, this is given level of significance under which the calculated x^2 is studied.

Decision Rule: The generally expected criterions for decisions are stated below as thus:

Ho (null hypothesis) will be accepted if the critical value at 5% significant adopted is more than the calculated value and reject the alternative hypothesis. Otherwise it will be rejected.

Data Analysis

KEY: SA – Strongly agree, A – Agree, U – undecided, D – Disagree, SD – strongly disagree

Frequency and percentage representation of questions

QUESTIONS	SA & (%)	A & (%)	N & (%)	D & (%)	SD & (%)
It exposure improves the performance of cooperative society's service	31 (63.3)	10 (20.4)	6 (12.2)	2 (4.1)	
Information technology is highly efficient and will improve the performance of cooperative society in Nigeria	36 (73.5)	6 (12.2)	5 (10.2)	2 (4.1)	
Information technology has increased the level of economic activities	23 (46.9)	19 (38.8)	4 (8.2)	1 (2.0)	
Information technology will enhance cooperative operation in terms of quick service	41 (83.7)	3 (6.1)	4 (8.2)	1 (2.0)	

delivery					
It exposure of cooperative society will increase level of cooperative services patronage	18 (36.7)	22 (44.9)	6 (12.2)	3 (6.1)	
It exposure of cooperative society reduced the cooperative members surplus	1 (2.0)	6 (12.2)	11 (22.4)	16 (32.7)	15 (30.6)
It exposure of cooperative has negative effect on the cooperative management efficiency		5 (10.2)	7 (14.3)	22 (44.9)	15 (30.6)

From table above, 31(63.3%) of the respondents strongly Agrees, 10( ) 20.4%

Agrees, 6(12.2%) are undecided, and 2(4.1%) of the respondents Disagrees that IT exposure improves the performance of cooperative society's services.

36(73.5%) of the respondents Strongly Agree, 6(12.2%) Agrees, 5(10.2%) Undecided and 2(4.1%) of the respondents Disagrees that information technology is highly efficient and will improve the performance of cooperative society in Nigeria.

23(46.9%) Strongly Agrees, 19(38.8%) Agrees, 4(8.2%) are Undecided and 1(2.0%) of the respondents Disagrees that information technology has increased the level of economic activities.

41(83.7%) of the respondents Strongly Agrees, 3(6.1%) Agrees, 4(8.2%) are Undecided and 1(2.0%)Disagrees that information technology will enhance cooperative operation in terms of quick service delivery.

18(36.7%) of the respondents Strongly Agrees, 22(44.9%) of the respondents Agrees 6(12.2%) are Undecided and 3(6.1%) of the respondents Disagrees that IT exposure of cooperative society will increase level of cooperative services patronage.

1(2.0%) of the respondents Strongly Agrees, 6(12.2%) Agrees, 11(22.4%) are Undecided, 1632.7%) Disagrees 15(30.6%) of the respondents Strongly Disagrees that IT exposure of cooperative society reduced the cooperative members surplus.

5(10.2%) Agrees, 7(14.3%) are undecided, 22(44.9%) of the respondents Disagrees and 145(30.6%) of the respondents Strongly Disagrees that IT exposure of cooperative has negative effect on the cooperative management efficiency.

Hypothesis

H_0: Information technology has no significant impact on the cooperative services in Nigeria

H_1: Information technology has significant impact on the cooperative services in Nigeria.

We will reject H0 if P – value is less than a = 0.05

The formulated hypothesis will be tested Chi-square, and the result of the contingency table is shown below:

Tabulation of the responses on IT exposure of cooperative has negative effect on the cooperative management efficiency and IT exposure improves the performance of cooperative society's services.

Variables		IT exposure of cooperative has negative effect on the cooperative management efficiency				Total (%)
		SD & (%)	D & (%)	U & (%)	A & (%)	SD & (%)
IT exposure improves the performance of cooperative society's service	D U A SA	0(0) 2(4.1) 4(8.2) 9(18.)	0(0) 2(4.1) 4(8.2) 8(16.3)	0(0) 1(2.0) 2(4.1) 4(8.2)	2(4.1) 3(6.1) 0(0) 0(0)	2(4.1) 6(12.2) 10(20.4) 31(63.1)
		15(30.6)	22(44.9)	7(14.3)	5(10.2)	49

A Chi-Square test revealed that $X^2 = 35.662$ df = 9 and P – value = 0.000

DECISION:

Since P – value = 0.000 is less than 0.05, we reject H_0 and conclude that information technology has significant impact on the cooperative services in Nigeria.

Summary of Findings

From the analysis and Interpretation of data collected, the following is a summary of the findings:

- Majority (73.5%) of the respondents strongly agree that information technology is highly efficient and will improve the performance of cooperative societies in Nigeria.
- Majority (46.9%) of the respondents strongly agree that information technology will enhance cooperative operation in terms of quick service delivery.
- Majority (44.9%) of the respondents agrees that information technology will increase the level of cooperative services patronage.
- Majority (32.7%) of the respondents disagree that information technology exposure of cooperative society reduced the cooperative members' surplus.
- Majority of the respondents have other job positions in the cooperative societies,
    - Majority of the respondents have 6-10 years working experience which implies that they are not new members in the societies,
- Majority of the respondents are from multipurpose cooperative societies, this implies that the type of cooperative mostly found in Dunukofia Local
    - Government Area is multipurpose cooperative societies
    - The nature of transactions in most of the cooperative organization in DunukofiaLocal Government Area is the use of bank, only a low percentage makes use of cash.
- Majority of the respondents make use of mobile phones/computer as the type of information technology exposure to members and staffs of he organization.
- Majority of the cooperative organizations are partially exposed in terms of information technology.
- In Dunukofia Local government Area majority of the cooperative members communicate with each other in the organization through text messages.

Conclusion

This study concludes that information Technology has impact on the cooperative services in Nigeria, the principal impact being better management efficiency, service delivery, increased members surplus and patronage. The result of hypothesis tested showed that information technology has a significant impact on the cooperative service and influence the level of participation of members.

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