Curbing Corruption in Nigeria Cooperative Societies through ICT

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Abstract:*This work developed an avoidable* svstem that reduced corruption among cooperative workers in credit and consumers' cooperative societies operating in Nigeria. An Internet enabled stand-alone system that will handle all transactions within both Consumers' and Credit cooperative Societies was designed and implemented. This was integrated with Short Message Service (SMS) plugin. This system curbs corruption among cooperative societies' workers which engage in some unholy practice if fully adopted by these small cooperative societies in Nigeria.

Keywords: Cooperative Societies, Corruption, Fraud, ICT.

1. INTRODUCTION

Cooperative society autonomous is an association of persons who voluntarily cooperate for their mutual social, economic, and cultural benefit [1,2]. Cooperatives include non-profit community organizations and businesses that are owned and managed by the who people use its services (a consumer/cooperator) and/or by the people who work there (a worker cooperative) [4,6]. This system is a form of social security. Social security is a concept enshrined in Article 22 of the Universal Declaration of Human Rights which states that Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort international co-operation and and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality. In simple term, this means that the signatories agree that society in which a person lives should help them to develop and to make the most of all the advantages (culture, work, and social welfare) which are offered to them in the country or the immediate community they find themselves [3].

2. TYPES OF CO-OPERATIVE SOCIETIES

Although all types of cooperative societies work on the same principle, they differ with regard to the nature of activities they perform. Followings are different types of Co-operative Societies that exist [4,5,6].

2.1. Consumers' Co-operative Society: These societies are formed to protect the interest of general consumers by making consumer goods available at a reasonable price. They buy goods directly from the producers or manufacturers and thereby eliminate the middlemen in the process of distribution, thereby, making the goods available at reasonable price. Payment is also made convenient for consumers [5].

2.2. **Producers' Co-operative Society:** These societies are formed to protect the interest of small producers by making available items of their need for production like raw materials, tools and equipment, machinery, etc.

2.3. **Co-operative Marketing Society:** These societies are formed by small producers and manufacturers who find it difficult to sell their products individually. The society collects the products from the individual members and takes the responsibility of selling those products in the market.

2.4. **Co-operative Credit Society:** These societies are formed to provide financial support to the members. The society accepts deposits from members and grants them loans at reasonable rates of interest in times of need. Village Service Co-operative Society and Urban Cooperative Banks are examples of cooperative credit society. Most tertiary Institutions in Nigeria operate this type of cooperative society.

2.5. **Co-operative Farming Society:** These societies are formed by small farmers to work jointly and thereby enjoy the benefits of large-scale farming.

2.6. **Housing Co-operative Society:** These societies are formed to provide residential houses to members. They purchase land, develop it and construct houses or flats and allot the same to members. Some societies also provide loans at low rate of interest to members to construct their own houses.

Cooperative Society as a form of social security is expected to bring relief to its members in one way or the other, but the reverse is the case in many societies in Nigeria (especially in the Credit Societies) because of the way it is been operated, which has given way to corruption.

3. COOPERATIVE CREDIT SOCIETY

People from same societies, like Institutions of learning, professionals, trades of like minds and the likes, come together to form this type of society. Members come together once in a while to make their monthly contributions which each cooperator must have indicated at the point of registration. Each cooperator must have a regular source of income from where contributions are made. Contributions of members are always made from source and credited to account of the Cooperative Society especially when such Societies are formed from an organized public or private sector.

Most of these Societies are operated on trust [1]. In the recent time, some workers within the societies have betrayed this trust by enriching themselves by committing fraud in the societies. This is possible because once members authorized their contributions; they do not have mechanism to monitor their contributions and any transaction on their accounts. Lot of fraudulent activities is carried out at detriment of members' contributions.

This corrupt act could go undetected by auditors because it would have been perfected in such a way that it would look as if the amount to be fraudulently withdrawn would be withdrawn as if an innocent cooperator in taking loan.

4.AIM AND OBJECTIVE

This work developed an avoidable system that reduced corruption among cooperative workers in credit and consumers' cooperative societies operating in Nigeria.

An Internet enabled stand-alone system that will handle all transactions within both Consumers' and Credit cooperative Societies was designed and implemented using Visual Basic 2010. This was integrated with Short Message Service (SMS) plugin.

5. MOTIVATION

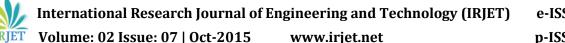
Credit Cooperative Societies are always small in size and in capital they manage. Due to this, they may not be buoyant enough to adopt full Internet based applications as available in banking industries and medium financial enterprises. Most of them can only avoid a stand-alone system. The system some of these cooperative societies operate till date is manual in spite of the ICT revolution around us. Sometimes members do not have means of checking their contribution until they are physically present at the Cooperative house. These challenges were addressed in this work.

6. RESULT

The system was designed using Unified Modeling Language (UML) (fig.1) while the system was developed using Visual Studio 2010 as the front end and the back end was Microsoft SQL. The system was installed on a stand-alone system, but internet enabled, which was integrated with SMS package which will be alerting members on transactions on individual account.

The system developed was called WealthWells. The System have some security features which will not grant accessibility of all the modules of the package to just a single person. But accessibility to some features/modules ofthe package will be on individual role in the Society. Apart from this, this System also have audit trail that will keep track of everylog in into the system and operation perform at such access.

The package was integrated with SMS alert system in such a way that any transaction



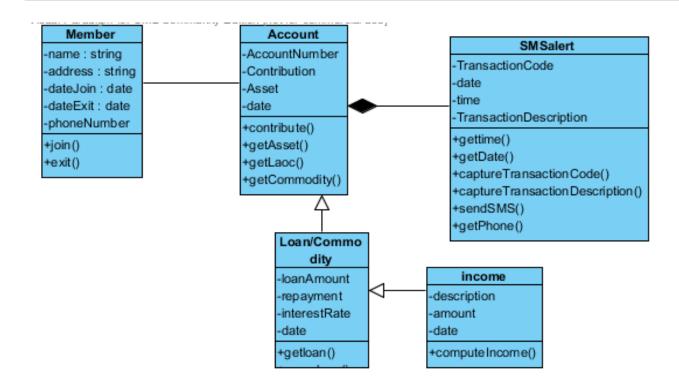


Fig. 1: The Class Diagram of the Cooperative System

that will be carried on my member account will trigger message to such member's mobile phone. On monthly basis, members will be receiving SMS to show the current status of their account.

WealthWell main screen has five (5) main menus as shown in Fig. 2. File menu supposes operations of user accessibility setup, Location and interest rate setup.



Fig. 2: Screenshot of the main form of WealthWell

Users are assigned accessibility only as schedule of their duty. None of the staff/cooperator has access to all the modules. Registration for all or any of the service rendered by the cooperative and withdrawal from such services as well is done at the Records module (Fig. 3 and 4).

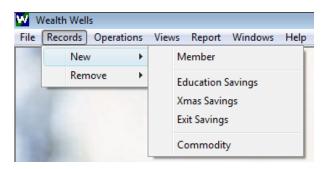


Fig. 3: Screenshot of Record submenu module of the WealthWell

After cooperators are admitted into the society transactions can start on their respective accounts. Details of these transactions are communicated to concerned cooperator through SMS or email to alert them of such. If such transaction is not authorized by the cooperator, (S)he will quickly notify appropriate person of possible fraudulent activities on his/her account and such could be reversed or anti-fraud measures taken against person responsible for initializing such transaction after necessary investigation carried out. This mechanism of transaction notification is lacking in previous mode of operations.

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Fig. 4: Registration from for new members

Several reports are also generated by the system to assist auditors and individuals to monitor periodically transactions within the Society. Figures 5 to 7 show some of these reports.

This system is expected to curb corruption among cooperative societies' workers which engage in some unholy practice if fully adopted by these small cooperative societies in Nigeria.

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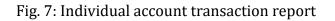
Fig.	5:	Sample	Statement	of	an	individual
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Fig. 6: Membership listing Form



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Conclusion

As Social Security, Cooperative Societies must be a relief to the members of community that constitute the Society. Corruption must not be allowed to raise its ugly head in the scheme. This system provided a mechanism that will reduce corruption in the society by alerting members of the society all transaction carried out on their account(s).

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Reference

 [1] Ruerd Ruben and ZviLerman, Why Nicaraguan Peasants Stay in Agricultural Production Cooperatives. Available at http://www.cedla.uva.nl/50_publications/pdf/revista /78RevistaEuropea/78_Ruben&Lerman.pdf accessed on 13/6/2015 [2] John M. Staatz, "Farmers' incentives to take collective action via cooperatives: A transaction-cost approach," in: Cooperative Theory: New Approaches, ed. J.S. Royer, Washington, DC: USDA ACS Service Report 18 (July 1987), pp. 87-107.

[3] Ward, A.H. A Command of Cooperatives. Wellington: The New Zealand Dairy Board ,1975.

[4] Derr, Jascha (2013), The cooperative movement of Brazil and South Afric, available at http://www.rosalux.co.za/wpcontent/uploads/2013/04/Brazil_SA_Cooperati ves-SD-1_2013.pdf. Accessed on 13/6/2015.

- [5] Co-Operative Societies, Principles, Types Of Societies And The Registratrion Of The Societies. Available on https://www.wircicai.org/material/registration%20of%20socie ties.pdf.Accessed on 12/4/2015.
- [6] Co-Operative Societies Act Chapter 490. Available at <u>http://faolex.fao.org</u> /docs/pdf/ken64070.pdf.accessed on 12/4/2015.