

## PROSPECTS OF PLATFORM COOPERATIVES AMONG AGRIPRENEURS IN LAGOS STATE, NIGERIA

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### ABSTRACT

Ceaseless efforts have been on to improve the livelihood of rural-urban people through many channels. One medium is the exploitation of the growing application of internet-based facilities. This study investigated the feasibility of a platform cooperative; a website, mobile application, or another kind of online platform that is structured as a cooperative being owned democratically by the users and other stakeholders, as a medium of improving rural-urban income. A survey design was adopted while primary and secondary data were used. A questionnaire was administered to 210 agripreneurs using a simple random sampling technique but 170 were successful for analysis. Data were analysed using content analysis, descriptive statistics, net present value, and internal rate of return. Findings revealed that platform cooperative promotes the exchange of goods and services in agribusiness and boosts the income of members. Also, 38.82% were aware of platform cooperatives. The requirements, such as internet, computer gadgets, and software, for setting up platform cooperatives are available in the study area. It is financially feasible with a net present value of ₦1,407,150:00 and an internal rate of return of 95.66% over a 5 years period at a 14% discount rate. It is recommended that investment in platform cooperative establishment should be given top priority by entrepreneurs and the supervisory agency of cooperatives. Platform cooperatives should be encouraged through public enlightenment programmes to promote inclusive income growth.

**Keywords:** Agripreneurs, Internet, Online cooperative, Awareness, Feasibility

### INTRODUCTION

The importance of cooperative in the promotion of production, consumption and inclusive income growth cannot be over-emphasized. Physical cooperative brings participants together for economic prosperity (Marathe, 2017) and particularly is part of continual efforts at improving the livelihoods of rural-urban people on a sustainable basis. There is a rising application of computers and the internet in all business spheres including cooperatives with limited usage in cooperative administration. Platform cooperative (PC) is a cooperative society on the web, a cooperative that is run on computer and mobile internet applications. PC serves the same purpose as a physical cooperative, providing

wider reach and participation, capturing more youths' participation, and bringing buyers and sellers of goods and services together. All its subscribers are owners of the platform with equal voting rights and it is strictly run like a physical cooperative. Universally, any effort that captures more youths, promotes security, which further underpins the relevance of PC.

However, Nigeria lags behind in the ICT application frontier (Oluwole, 2021). Production inputs are becoming non-readily available. Suppliers and buyers of agro-inputs/outputs need a shorter time to consummate transactions and there is intermediaries challenge that leads to higher prices. All these problems necessitate the introduction of novel mechanisms like PC that will at least reduce these problems significantly. In this connection, the benefits of PC are in many folds. PC can aid the linkage of the agricultural and manufacturing sectors as suppliers and consumers of farming produce respectively which Akanbi, Alarape and Olatunji (2019) emphasised through contract farming. Also, PC can be a part-solution to the low income that are realised by Nigerian agro-allied entrepreneurs despite their high intensity of business process such as involvement in catfish processing and preservation reported by Kayode and Awoyemi (2020) by removing intermediaries and hastening their connections with buyers. The objectives of the study are therefore to analyse the level of awareness of PC among agripreneurs, and examine their financial viability in the study area.

The study is important for research and academic purpose. Globally, literature on PC is very few and there is a lack of research, which portends the need for more studies on it (Zhu and Marjanovic, 2021). PC is a veritable window for engaging the youths and their empowerment in a digital era. It will close the gap between input sources and producers and improves the market available for producers to increase the timely purchase and reduce wastage of farm produce respectively. The study's findings will be useful for policymakers on platform cooperatives, a source of input for improved usage of internet facilities and an avenue to take advantage of the growing digital economy.

There is growing literature on cooperatives but not on PC that includes Bhuyan (2007); Onugu & Abdulahi (2012); Kassali, Adejobi & Okparaocha (2013); Oduyoye, Adebola & Binuyo (2013); International Cooperative Alliance (2015) and Nwankwo, Ogbodo & Ewuim (2016). All these studies are limited to improving the socio-economic and political prosperity of cooperatives and their members.

With the growing incursion of the internet and ICT in commercial and economic ventures, researchers have put limited efforts at taking cooperative to online apps such that its membership and running can be done on a computer and mobile phones with internet connections. The study efforts started with Scholz (2014 and 2017) and later included Borkin (2019) and Zhu & Marjanovic (2021) to which this study is an addition.

According to Mayo (2015), cooperatives dated back to 1844 in Britain by Rochdale Pioneers and it is an organisation owned and operated for the benefit of those using its services with open membership, democratic control, no religion and political discrimination, sales at prevailing market prices, setting aside of some earnings to promote the cooperative and sharing of part of earnings. The online cooperative business has these features and will therefore promote productivity and inclusive income growth (Scholz, 2014 and 2017). Currently, online business has become a key element of the entrepreneurial ecosystem which has been identified by Akiode (2020) to be important for information provision and encouraging access to financial capital to entrepreneurs for wealth creation, The PC, as a form of online business will no doubt encourage resources and information flow between supply and demand.

The establishment of PC is simple but needs certain elements. According to Heng (2016), the requirements for the establishment of a platform cooperative are: getting a domain name, choosing a web host and signing up for an account, designing web pages, testing the website, collecting payment card information, and getting the site noticed. Others are mobile phones/computers, internet connectivity, electricity, insurance services, government support, marketing information services, transportation services, and infrastructure. They are the necessary and sufficient factors for establishing and running a platform cooperative.

## **METHODOLOGY**

The study area is Lagos State and the population referred to agripreneurs that are economic agents in the agricultural enterprises' value chains. A survey design was adopted using a multi-stage sampling technique. Primary and secondary data were used. The first stage involved the purposive selection of two Local Government Areas (LGA): Epe and Ikorodu. The two areas were selected due to their less urban status having admixture of rural and urban features with diverse agropreneurs. The second stage entailed the purposive selection of two communities from each LGA and a simple random selection of 210 respondents disproportionate to size. The agripreneurs associations were identified along livestock, crop farming, processing and sales of farm inputs and outputs. Through the executives of the agripreneurs, serial numbers were assigned to members of each group and the questionnaire were distributed to them as respondents in each of the four communities. 170 responses were successful for analysis. The response success rate of 81% that reflects 19% response attrition was perhaps due to the usual consideration of questionnaire as taking much effort to complete. It was also due to Platform cooperative as a new cooperative concept that some respondents mentioned was not so clear to them.

Data were obtained on socio-economic variables: gender, educational status, marital status, cooperative membership, household size and agro-business type. ICT practitioners, web designers, and computer science specialists were interviewed.

Secondary data were obtained on cost items for operating a website. Table, percentage, Content analysis, Net Present Value (NPV), and Internal Rate of Return (IRR) were used as analytical tools. In line with Olowe (2009), NPV and IRR are shown below.

$$NPV = \sum_{t=1}^N \frac{B_t}{(1+K)^t} - \sum_{t=1}^N \frac{C_t}{(1+K)^t} \dots\dots\dots, (i)$$

where, B = Cash inflow at the time (year) t,  
t = 1, ..., N  
K = Cost of capital (%)  
C = Cash outflow at the time (year) t, and

$$IRR = LR + \left[ \frac{NPV_p}{NPV_p - NPV_n} \right] (HR - LR), \dots\dots\dots (ii)$$

where, LR = Lower discount rate with a positive NPV  
HR = Higher discount rate with a negative NPV  
NPV<sub>p</sub> = the amount of positive NPV  
NPV<sub>n</sub> = amount of negative NPV

## RESULTS AND DISCUSSION

### Respondents' socio-economic characteristics

Table 1 shows that 56.47%, 87.06%, and 77.06% were female, had more than primary education and were married respectively. The table also shows that the respondents' businesses cut across processing, transportation packaging, storage, and farming. However, they were mostly farmers (51.77%). They were also product/input middlemen and into input/output sales. These reflect the economic agents that will be members of PC.

**Table 1: Socio-economic characteristics of Respondents**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	74	43.53
Female	96	56.47
<b>Total</b>	<b>170</b>	<b>100.00</b>
<b>Formal Education</b>		
Primary School	22	12.94
JSC/SSSC	25	14.71
NCE/ND	45	26.47
HND/Bachelor's Degree	47	27.65
PGD/Master's Degree	20	11.76
PhD	11	6.47
<b>Total</b>	<b>170</b>	<b>100.00</b>
<b>Marital Status</b>		
Single	26	15.29
Married	131	77.06
Separated/Married	13	7.65
<b>Total</b>	<b>170</b>	<b>100.00</b>
<b>Type of Agribusiness</b>		
Processing	39	22.94
Transportation	20	11.76
Packaging	20	11.76
Storage	3	1.77
Farming	88	51.77
<b>Total</b>	<b>170</b>	<b>100.00</b>
<b>Other agribusinesses</b>		
Product Marketing middlemen	51	30.00
Input Marketing middlemen	13	7.65
Farm inputs sales	22	12.94
Farm outputs sales	84	49.41
<b>Total</b>	<b>170</b>	<b>100.00</b>

**Awareness of Platform Cooperative**

**Table 2: Awareness of platform cooperatives and membership of other cooperatives**

<b>Variable</b>	<b>Yes</b>		<b>No</b>		<b>Undecided</b>	
	<b>Freq</b>	<b>%</b>	<b>Freq</b>	<b>%</b>	<b>Freq</b>	<b>%</b>
Awareness of platform cooperatives	66	38.82	104	61.18	-	-
Membership of platform cooperative	0	0.00	170	100.0	-	-
Membership of other cooperatives	113	66.47	57	33.53	-	-
Intension to join Platform Cooperative	93	54.71	29	17.06	48	28.24

From Table 2, the majority (61.18%) mentioned that they were not aware of PC in the study area and elsewhere. None of the respondents is a member of PC. These results are not astounding. PC is a new on-line business model that was first raised in literature by Scholz (2014 and 2017) and is yet to gain attention in most parts of the world (Zhu and Marjanovic, 2021). These account for its non-awareness by the majority of the respondents. However, 66.47% of the respondents belonged to other cooperatives while 54.71% mentioned that they could join PC. This result aligns with the existing knowledge that membership of cooperative among agripreneurs is common in the study area and generally in Nigeria (Kassali, Adejobi & Okparaocha, 2013; Nwankwo, Ogbodo & Ewuim, 2016). All agripreneurs know that cooperative is a major source of raising funds for agricultural ventures while they share from its surplus, which is a reason for the majority of the respondents to have mentioned that they could join PC. Studies that included Akanbi, Alarape and Olatunji (2019) involving agripreneurs show that majority of respondents or all respondents do belong to cooperatives in Nigeria.

### **Financial Feasibility and Maintenance Requirements of PC**

The NPV and IRR of ₦1,407,150.00 and 95.66% respectively computed from Table 3 indicate that PC is financially viable in the study area. Interest Rate of the capital of 14% was used with the projected members for the PC as 50 in year 1 increasing to 200 in year 5. The Cash inflow items are subscription by membership, commission on transactions (through online payment), and commission on internet access. The cash outflow items include sunk cost, web design, web development, server purchase, website domain registration, registration with the government, operating cost, web maintenance, server maintenance, secretariat staff and labour, secretariat equipment (computer, printer, etc.), and annual website domain host renewal fee.

The requirements to maintain PC, according to Woolard (2015), are human resources who must have expertise in specific areas. These are project manager who helps with scheduling events, facilitating meetings, and tracking budgets; a communication professional to craft a clear message and recruit people to try out the platform as it develops; a designer who makes the front end beautiful; a developer who develops the software and annotates it so that other people can add to it in the future; and advisors: one per area of expertise that has been mentioned, as well as one who have strong connections to the community of interest.

**Table 3: Estimated Platform Cooperative cash flow**

Year	Estimated number of Membership	Estimated Cash flow (₦)
1	50	(1,000,000.00)
2	90	1,000,000.00
3	120	1,000,000.00
4	150	1,000,000.00
5	200	480,000.00

## CONCLUSION AND RECOMMENDATIONS

Cooperative on the internet, PC, promotes employment opportunities, creates a market and promotes agro-enterprises with attendant inclusive growth. In spite of the benefits of PC, the study has shown that the level of its awareness is very low and has not been practiced by any of the respondents. However, PC can be successfully introduced as most of the respondents could join it. The requirements for PC are available in Nigeria. It is profitable and financially feasible. The study recommends that the awareness of PC should be launched and boosted by government and non-governmental organisations through education and enlightenment programmes. Also, investment in the requirements of PC should be promoted by agripreneurs and government supervisory agencies of cooperatives. Internet access, a fundamental requirement for PC, should equally be encouraged among Nigerians through the provision of necessary infrastructure. Further studies on PC should include registration and likely challenges of PC in Nigeria.

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