

# Digital Agricultural Extension and Youth-Led ‘Agripreneurship’ in Ibadan North Local Government Area of Oyo State Nigeria

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## ABSTRACT

This research examined digital agricultural extension and youth-led agripreneurship in the Ibadan North Local Government Area using the International Institute of Tropical Agriculture IITA’s Youth Agripreneurs Initiative (IYAS). The study is anchored on the Uses and Gratification theory and Technological Determinism theory. The study used survey research design using a questionnaire for data gathering from select respondents. Data collected from the respondents in the Ibadan North Local Government Area of Oyo State were analyzed using descriptive statistics. Findings revealed that three popularly used digital agricultural extension channels for accessing the latest agricultural information and policies among Agripreneurs in Ibadan are Smart Messaging Services (SMS), social media, and smartphones. Further research revealed that the respondents sometimes use interactive voice recording and Smart Applications to access the latest agricultural information and policies. Also, Agripreneurs’ farms are growing better because of the information they access on digital media, they make more profit from agribusiness and the success of their agribusiness is attributed to such information. Based on the findings of the study, it is recommended that the Institute of Tropical Agriculture (IITA) and other related organizations should continue to execute the objectives of the Youth Agripreneurs initiative and possibly extend the initiative to other parts of Nigeria to promote agribusinesses and end poverty and hunger before 2030.

**Keywords:** Agribusiness, Agripreneurs, Youth-Led Agripreneurship, Digital Media Channel, and Tropical Agriculture

## INTRODUCTION

Agripreneurship creates vast employment opportunities, higher incomes, and a poverty reduction mechanism for the crowds of unemployed young people in Africa (Ogunmodede, al., 2020). Therefore, encouraging the youths to take up agribusiness has become an important strategy to create employment opportunities globally and in Africa in particular. To achieve this, various African governments and organizations have implemented a number of interventions that facilitate youth engagement in agribusiness for several years (Ogunmodede, al., 2020). One such intervention is the International Institute of Tropical Agriculture Youth Agripreneurs Initiative. The initiative is a youth in agribusiness model that was established to address the issue of widespread youth unemployment and to provide a platform that propels youth toward self-employment (International Institute of Tropical Agriculture, 2020). International Institute of Tropical Agriculture, through this initiative, undertakes activities such as training young Nigerian agripreneurs on the use of digital agricultural extension tools which include phone calls, social media, and specialized smartphone applications used for agricultural knowledge brokering (Coggins, al., 2022). Digital agricultural extension is used for the following purposes: promoting/updating their knowledge of agriculture and agricultural practice, connecting them with the latest agricultural information, developing the competence of Agripreneurs, aiding the organization of business activities, and accessing problem-solving consultancy. Historically, agriculture has undergone a series of revolutions that have driven efficiency,

yield, and profitability to previously unattainable levels. Market forecast for the next decade suggests a “digital agricultural revolution” will be the nearest shift which could help ensure that agriculture meets the need of the global population in the future (FAO, 2019). The growth and development of agripreneurship are essential to reduce the rate of unemployment and increase food production in the country. This goal aligns with United Nations Sustainable Development Goals 1 (no poverty) and 2 (zero hunger) which makes it fundamental not just to national but global development. This study, therefore, examines the influence of IITAs’ Youth Agripreneurs Initiative specifically training on digital agricultural extension on youth-led agripreneurship in Ibadan North Local Government Area.

### **Statement of the Problem**

Poverty and hunger are issues recognized as global problems which were listed in the first and second sustainable development goals, respectively. The United Nations recognized the need to solve these problems to create and foster a sustainable society and economy. One of the major causes of hunger and poverty is the prevalence of unemployment. The National Bureau of Statistics (NBS) reports the rate of unemployment in Nigeria was 35% in 2021 (this presents a notable 1.7% increase from the 33.3% reported in 2020 when the impact of the COVID-19 pandemic forced businesses to lay off staff). Agriculture has been identified as an effective solution to the problems of unemployment and food shortage in Nigeria particularly the uptake of agribusiness and agripreneurship by Nigerian youths. The role of agriculture in a growing economy where the majority are poorly employed is essential because it occupies a very strategic position in the development process of the Nigerian economy; in terms of its provision of employment and income; diversification of the economy and export, improvement of balance of payment; diffusion of technical and managerial skills in an agrarian economy like ours, this can only be feasible with the impetus and complementary role of the agricultural sector (Tersoo, 2012). One of the phenomena, central to this development process, is the digital agricultural extension. This study, therefore, examines IITAs’ Youth Agripreneurs Initiative specifically training on digital agricultural extension and youth-led agripreneurship in Ibadan North Local Government Area.

### **Research Objectives**

The specific objectives of this study:

1. To determine the extension of the use of digital media channels by agripreneurs to access the latest agricultural information and policies in Ibadan North Local Government, Oyo State, Nigeria;
2. To determine the extent of knowledge of agripreneurs obtained through digital agricultural extension updates on agriculture and agricultural practice in Ibadan North Local Government;
3. To determine the relationship between digital agricultural extension and the development of youth-led agripreneurship in Ibadan North Local Government.

## **LITERATURE REVIEW**

### **Digital Extension for Agri-Business Agripreneurship and Development**

An agripreneur is an individual who starts, organizes and manages a venture focusing on the agricultural sector (Mukhopadhyay and Mukhopadhyay, 2020). Agripreneurship provides value addition to agricultural resources typically engaging rural human resources. The finished goods and services coming out of Agripreneurial initiatives are generally procured and produced out of resources in rural areas, the consumption of which however may be both urban and rural (Mukhopadhyay and Mukhopadhyay, 2020). Agricultural entrepreneurship is not remotely dissimilar to other forms of entrepreneurship, e.g., for-profit entrepreneurship, sustainable entrepreneurship, social entrepreneurship, eco-entrepreneurship, but maintains the specific context of the agricultural sector (Mukhopadhyay and Mukhopadhyay, 2020) Newer forms of

Agripreneurship models link farmers to markets, both rural and urban, and a decentralized approach is to boost youth entrepreneurship and contribute to developing regional economies. These models also integrate services of credit, market linkages and also high-quality input, and crop advisory to large cohorts of farmers. With effective management of different agri-elements, an individual with risk-bearing capacity and a quest for the latest knowledge in the agriculture sector could prove to be the right Agripreneur. Agripreneurship is not only an opportunity, but also a necessary force, for improving the production and profitability of the agriculture sector (Mukhopadhyay and Mukhopadhyay, 2020). To promote agribusiness, agripreneurs are adopting digital agricultural extension tools and operations. The digital agricultural extension includes concrete actions that will address climate change/variation adaptation, post-harvest issues, youth programs, agri-business and the development of imparting points to reduce or eliminate risks associated with the value-chain (Okunola, 2019). African youths have long shown a lack of interest in agriculture, however, the emerging trend of applying digital technology solutions to agriculture, plus the limited availability of livelihood opportunities in other sectors, is attracting and increasing the number of youths going back to agriculture. These young people often bring their energy, creativity and tech-savviness to agriculture and are changing its landscape in Africa (Lohento, and Ajilore, 2015).

### Theoretical Framework

The study is anchored on the Uses and Gratification theory and Technological determinism theory.

**Uses and Gratification Theory:** The theory was propounded by Elihu Katz, Jay Blumler and Michael Gurevitch in 1974. The propositions of this theory when applied to this study states that the benefits (development of agribusiness) derived from the use of the digital agricultural extension are dependent on how digital agricultural extension tools and devices are used. Folarin (1998) explains that the theory proposes that channels/tools of dissemination, conditions of reception and reasons for which new information and ideas are used affect gratification. This theory is therefore concerned with the types of digital agricultural extension tools or channels agripreneurs use, the information/new knowledge they derive from them, and their use of the development of their agribusiness.

**Technological Determinism Theory:** Technological determinism theory was propounded by Marshall McLuhan in 1962. It is the belief that technology is the principal initiator of society's transformation. Technological progress, rapidly growing in the 21<sup>st</sup> century, also asserted itself in how we create, distribute and evaluate knowledge, skills and information today (Hauer, 2017). Alao (2012) noted that the theory is concerned with how technology shapes how individuals in a society think, feel, and act and how the society operates as with movement from one technological age to another (Agrarian -digital). By application, the theory explains that agripreneurs learn, innovate, and execute ideas for the development of their agribusiness based on the messages they receive through the technology (a digital agricultural extension that is available).

### METHODOLOGY

The research was conducted using a survey research design. A structured questionnaire was used as a research instrument. The questionnaire had four sections. The questionnaire was administered physically by the researchers. The area of study was Ibadan North Local Government Area of Oyo State. Simple random sampling was employed to select 150 young Agripreneurs residing in the local government, who have undergone training with the IITA. After the administration of the questionnaire, 143 copies of the questionnaire were found valid for analysis. The data generated was subject to analysis and are presented in simple percentages and tables for easy understanding and simplicity.

## FINDINGS AND DISCUSSION

### Demographic of Respondents

**Table 1: Gender of Respondents**

Age	No of Respondents	Percentage (%)
Male	97	67.8
Female	46	32.2
<b>Total</b>	<b>143</b>	<b>100</b>

**Table 2: Age of Respondents**

Age	No of Respondents	Percentage (%)
18-23	26	18.2
24-28	41	28.7
29-34	54	37.8
35-40	22	15.4
<b>Total</b>	<b>143</b>	<b>100</b>

**Table 3: Educational Qualification of Respondents**

Education	No of Respondents	Percentage (%)
SSCE/WAEC	13	9.1
ND/OND	11	7.8
HND/B.Sc.	92	64.3
M.Sc.	27	18.9
<b>Total</b>	<b>143</b>	<b>100</b>

(Field Survey, 2022)

**Research Objective 1:** To determine the extension of the use of digital media channels by agripreneurs to access the latest agricultural information and policies in Ibadan North Local Government, Oyo State, Nigeria

**Table 4: Use of digital media channels by agripreneurs to access the latest-agricultural information and policies in Ibadan**

Items	Always	Sometimes	Rarely
Social Media	91 (63.6%)	29 (20.3%)	23 (16.1%)
Interactive Voice recording	41 (28.7%)	87 (60.8%)	15 (10.5%)
Smart Application	53 (37.1%)	79 (55.2%)	11 (7.7%)
Smart Messaging Services (SMS)	94 (65.7%)	16 (11.2%)	33 (23.1%)
Smartphones	89 (60.1%)	28 (19.6%)	26 (18.2%)

(Field Survey, 2022)

Table 4 shows that the three most used digital agricultural extension channels among agripreneurs in Ibadan North Local Government for accessing new agricultural information and policies are smart messaging services, social media and smartphones. Sometimes, they also find interactive voice recording and smart applications useful for accessing new agricultural information. The findings can be supported by the work of Coggins et al. (2022) who stated that the International Institute of Tropical Agriculture undertakes activities such as training young Nigerian agripreneurs on the use of digital agricultural extension tools which include phone calls, social media, and specialized smartphone applications used for agricultural knowledge brokering. Likewise, the findings anchored on the theory of uses and gratification reveals that agripreneurs in Ibadan use digital agricultural extension channel to update their knowledge of agricultural practices and policies.

**Research Objective 2:** To determine the extent of knowledge of agripreneurs obtained through digital agricultural extension updates on agriculture and agricultural practice in Ibadan North Local Government

**Table 5: extent of knowledge of agripreneurs obtained through digital agricultural extension updates on agriculture and agricultural practice**

Items	Always	Sometimes	Rarely
I get the latest information on my agribusiness through digital media	97 (67.8%)	12 (8.4%)	34 (23.8%)
I provide solutions to problems I encounter in my agribusiness using digital agricultural extension tools	88 (61.5%)	43 (30.1%)	12 (8.4%)
I meet and discuss ideas about agribusiness with other agripreneurs through digital media	91 (63.6)	23 (16.1%)	29 (20.3%)
Digital media are platforms for me to buy and sell products relevant to my agribusiness	87 (60.8%)	44 (30.8%)	12 (8.4%)

(Field Survey, 2022)

Table 5 shows that to a high extent, digital agricultural extension updates the knowledge of Agripreneurs on agriculture and agricultural practice by:

- Providing Agripreneurs with the latest agricultural information through digital media
- Equipping Agripreneurs with new knowledge to solve problems they encounter in their agribusiness
- Providing a platform for Agripreneurs to network and discuss agribusiness ideas
- Helping them buy and sell products relevant to their business

The findings in this study confirm the study of Okunola (2019) who stated that to promote their agribusiness, agripreneurs are adopting digital agricultural extension tools and operations, digital agricultural extension includes concrete actions that will address climate change/variation adaptation, post-harvest issues, youth programs, agri-business and development of imparting points to reduce or eliminate risks associated with value- chain. These findings are supported by the theory of technological determinism as it supports the idea that technology is the principal initiator of society’s transformation.

**Research Objective 3:** To determine the relationship between digital agricultural extension and the development of youth-led agripreneurship in Ibadan North Local Government.

**Table 6: the relationship between digital agricultural extension and the development of youth-led agripreneurship**

Items	Strongly Agree (%)	Agree (%)	Strongly Disagree (%)	Disagree (%)
Digital media have made agribusiness easy and interesting to me	61 (42.7)	43 (30.1)	16 (11.2)	23 (16.1)
I have to understand agribusiness better through digital media	35 (24.8)	83 (54.0)	9 (6.3)	16 (11.2)
I went into agribusiness because of the information I get from digital media	31 (21.7)	17 (11.9)	22 (15.4)	73 (51.0)
My farm is growing better because of the information I get from digital media	58 (40.6)	51 (35.7)	13 (9.1)	21 (14.7)
Digital media help me to know the state of my agribusiness in a given period or season	24 (16.8)	21 (14.7)	31 (21.7)	67 (46.9)
I make more profit from agribusiness because of information from digital media	73 (51.0)	34 (23.8)	7 (4.9)	29 (20.7)
I am successful today in agribusiness because of digital media	41 (28.7)	67 (46.9)	23 (16.1)	12 (8.9)

(Field Survey, 2022)

Table 6 show that digital media have made agribusiness easy and interesting to Agripreneurs in Ibadan and they have to understand agribusiness better through digital media. Most agripreneurs in Ibadan did not go into agribusiness because of the information from digital media and digital media does not make them know the state of agribusiness in a given period or season. Most Agripreneurs’ farms are growing better because of information from digital media, they make more profit from agribusiness and are successful in agribusiness today because of information on digital media.

## CONCLUSION

In conclusion, the three most used digital agricultural extension channels among agripreneurs in Ibadan North Local Government, for accessing new agricultural information and policies, are smart messaging services, social media and smartphones. Sometimes, Agripreneurs find interactive voice recording and smart applications useful for discovering new agricultural information. To a large extent, digital agricultural extension updates the knowledge of Agripreneurs on agriculture and agricultural practices by; providing Agripreneurs with the latest agricultural information through digital media, equipping Agripreneurs with new knowledge to solve problems they encounter in their agribusiness, providing a platform for Agripreneurs to network and discuss agribusiness ideas and helping them buy and sell products relevant to the business. Digital agricultural extension channels particularly digital media have made agribusiness easy for Agripreneurs in Ibadan. Agripreneurs’ farms are growing better because of information from digital media, they make more profit from agribusiness and are successful in agribusiness today because of information on digital media.

## Recommendations

Having analyzed, discussed and interpreted the data collected in this study, the researchers, therefore, recommend the following;

1. International Institute of Tropical Agriculture (IITA) and other related organizations should use more

Smart Messaging Services (SMS), social media platforms and smartphones in reaching out to Agripreneurs as the study has shown that they always use these channels to access information on agribusiness.

2. International Institute of Tropical Agriculture (IITA) and other related organization should know that Agripreneurs, to a large extent, use digital media channels for different purposes for their agribusiness and therefore, should continue Youth Agripreneurs Initiative.
3. Agripreneurs in Ibadan have made more profit and recorded more success in agribusiness today because of information on digital media, therefore International Institute of Tropical Agriculture (IITA) and other related organizations should continue with the agenda of the initiative and to a possible extent expand the initiative to other parts of Nigeria to promote agribusinesses and end poverty and hunger before 2030.

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