UNIVERSITI PUTRA MALAYSIA

ANTECEDENTS OF PADDY PRODUCTION IN KANO AND JIGAWA STATES, NIGERIA

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ANTECEDENTS OF PADDY PRODUCTION IN KANO AND JIGAWA STATES, NIGERIA

By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

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DEDICATION

To my family for their relentless sacrifices and prayers during the programme

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

ANTECEDENTS OF PADDY PRODUCTION IN KANO AND JIGAWA STATES, NIGERIA

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March 2021

Chairman : Professor Rusmawati binti Said, PhD
Faculty : School of Business and Economics

Nigeria has ample of land paddy farming and a young workforce. The national average of annual paddy production is around 5,000 MT, which is lower than the actual consumption by 2,300 MT yearly. The situation is exacerbated, as it was predicted that rice demand will exceed 36,000 MT by 2050. Although, several programs were implemented such as New Rice for African Varieties (NERICA) in 2008 and the Transformation Agenda in 2012, yet, insufficient paddy production and massive youths unemployment undermine Nigeria's food policy and ultimately hinders the achievement of Sustainable Development Goals. Thus, this study addresses food insecurity that is detrimental to Nigeria and the world in general.

The low use of agricultural technologies, such as fertilizers, certified seeds and machinery, among others, was linked as the main factors causing low paddy production. Rapid population growth is also a catalyst to this situation. Thus, the Nigerian government provides farm inputs subsidies. The effect of subsidized farm technology on paddy production was investigated. The result revealed the relevance of subsidies on fertilizers, certified seeds, and tractor services. Unlike most of the previous studies that concentrated on a single farm input, this study contributes to current issues that are debated among policymakers. The findings will aid in redesigning policies that will expand access to farm subsidies in Nigeria.

Although there is an increase in accessing extension connectivity (mobile phones and internet), yet, many youths remain unemployed notwithstanding the increase in the literacy rate. Hence, the study determines the influence of extension connectivity in attracting youths into paddy production. It has shown that extension connectivity may influence youths into paddy farming. Unlike previous studies that focused on influencing them into agriculture in general, this finding aids at incorporating extension connectivity as a means of encouraging youths to venture into paddy farming in Nigeria.

The series of complaints by paddy farmers on their failure to access credit from financial institutions have raised a question on the issues that prevent access. The study examines the effect of major credit requirements, namely: the administrative process, guarantor, collateral, interest rate and the duration of principal repayment on access to credit. Many studies have examined collateral and interest, however, only a few analysed the administrative procedure. Therefore, finding of this study, will assist in addressing the challenges that stumble many paddy farmers to access credit from financial institutions in Nigeria.

Questionnaires were administered to farmers from April 2020 to July 2020. Eight-hundred-forty participants were selected through multistage sampling techniques. Binary and Ordinary Least Square methods were used to analyse the data. The results showed that an increase in subsidized fertilizer, certified seeds, tractor service, and credit access would increase paddy production by four, five, four and three times, respectively. The use of mobile phones by 1% may influence participation of youths in paddy farming by 26%. Furthermore, administrative procedures and guarantor requirements affect access to credit by two and three times, respectively.

This study confirmed that subsidized farm technology will increase paddy production and extension connectivity will encourage the participation of youths in paddy production. The ease of essential credit conditions will promote the ability of farmers to access credit from financial institutions. This study recommends the re-planning of the farm subsidy distribution process, the need for greater attention in utilising extension connectivity in enlightening and educating youths and equipping paddy farmers with more skills and knowledge.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

ANTESEDEN PENGELUARAN PADI DI KANO DAN JIGAWA, NIGERIA

Oleh

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Nigeria sebuah negara yang mempunyai banyak ladang padi dan tenaga kerja muda. Purata pengeluaran tahunan padi nasionalnya adalah sekitar 5,000 MT, iaitu lebih rendah daripada kadar penggunaan sebenar iaitu sebanyak 2.300 MT setiap tahun. Situasi ini diburukkan lagi, apabila ramalan permintaan beras bakal melebihi 36,000 MT menjelang 2050. Walaubagaimanapun, beberapa program telah dilaksanakan seperti Beras Baru untuk kemajmukan Afrikan (NERICA) pada tahun 2008 dan Agenda Transformasi pada tahun 2012, namun, pengeluaran padi nasih tidak mencukupi dan ditambah pengangguran belia secara besar-besaran telah merosakkan dasar makanan Nigeria dan akhirnya menghalang pencapaian Matlamat Pembangunan Lestari. Oleh itu, kajian ini perlu untuk menangani ketidakcukupan makanan yang memudaratkan Nigeria dan dunia amnya.

Penggunaan teknologi pertanian yang rendah, seperti baja, benih dan mesin yang diperakui, antara lain, dikaitkan sebagai faktor utama yang menyebabkan pengeluaran padi yang rendah. Kepesatan pertumbuhan penduduk juga telah memburukkan lagi keadaan ini. Oleh itu, kerajaan Nigeria memberikan subsidi input ladang. Kesan teknologi ladang bersubsidi terhadap pengeluaran padi akan dikaji. Hasil kajian telah menunjukkan baja, benih yang diperakui, dan perkhidmatan traktor adalah relevan diberi subsidi. Tidak seperti kebanyakan kajian terdahulu yang hanya tertumpu pada input ladang tunggal, kajian ini menyumbang kepada isu semasa yang diperdebatkan di kalangan pembuat dasar. Penemuan ini membantu dalam merancang semula dasar yang akan memperluaskan akses subsidi pertanian di Nigeria.

Walaupun terdapat peningkatan dalam akses dalam pengembangan penyambungan (telefon bimbit dan internet), namun, para belia tetap menganggur kerana terdapat peningkatan dalam kadar celik huruf. Oleh itu, kajian ini menentukan pengaruh pengembangan penyambungan dalam menarikminat belia mencebuti dalam industri pengeluaran padi. Kajian ini menunjukkan bahawa pengembangan penyambungan dapat

mempengaruhi belia menceburi perladangan padi. Berbeza daripada kajian sebelumnya yang memfokuskan pengaruh belia menceburi industri pertanian secara umum, penemuan ini akan membantu menggabungkan pengembangan penyambungan sebagai kaedahtambahan untuk mendorong belia menceburkan diri dalam pertanian padi di Nigeria.

Aduan daripada petani padi mengenai kegagalan mereka mendapatkan pinjaman kredit dari institusi kewangan telah menimbulkan persoalan mengenai isu-isu yang menghalang akses tersebut. Kajian ini mengkaji kesan keperluan kredit, iaitu: proses pentadbiran, penjamin, cagaran, kadar faedah dan tempoh pembayaran pokok atas akses kepada kredit. Banyak kajian telah meneliti jaminan dan kepentingan, namun hanya sedikit yang menganalisis prosedur pentadbiran. Oleh itu, penemuan kajian ini, akan membantu menangani cabaran yang membantutkan kebanyakkan petani padi untuk mendapatkan kredit dari institusi kewangan di Nigeria.

Soal selidik diberikan kepada petani dari April 2020 hingga Julai 2020. Lapan ratus empat puluh peserta dipilih melalui teknik pensampelan bertingkat. Kaedah Binary dan Biasa Least Square digunakan untuk menganalisis data. Hasil kajian menunjukkan bahawa peningkatan baja bersubsidi, benih yang diperakui, perkhidmatan traktor, dan akses kredit akan meningkatkan pengeluaran padi masing-masing sebanyak empat, lima, empat dan tiga kali ganda. Penggunaan telefon bimbit sebanyak 1% boleh mempengaruhi penyertaan para belia dalam pertanian padi sebanyak 26%. Selanjutnya, prosedur pentadbiran dan keperluan penjamin mempengaruhi akses kepada kredit masing-masing dua dan tiga kali ganda.

Kajian ini mengesahkan bahawa teknologi pertanian bersubsidi akan meningkatkan pengeluaran padi dan pengembangan penyambungan akan mendorong penyertaan belia dalam pengeluaran padi. Mumudahkan syarat asas pinjaman kredit akan meningkatkan kemampuan petani untuk mendapatkan kredit dari institusi kewangan. Kajian ini mengesyorkan perancangan semula proses pengagihan subsidi ladang, perlunya perhatian lebih besar dalam penggunaan pengembangan penyambungan dalam proses memberi kesedaran dan mendidik para belia serta melengkapkan petani padi dengan lebih banyak kemahiran dan pengetahuan.

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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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LIST OF ABBREVIATIONS

CBN	Central Bank of Nigeria
EU	European Union
FAO	Food and Agriculture Organisation
FAOSTAT	Food and Agriculture Organisation Statistics
FMARD	Federal Ministry of Agriculture and Rural Development
GDP	Growth Domestic Product
GESS	Growth Enhancement Support Scheme
GSM	Global System for Mobile Communication
IMF	International Monetary Fund
VIF	Variance Inflation Factor
NBS	National Bureau of Statistics
NCRI	National Cereals Research Institute
NGOs	Non -Governmental Organisations
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
OPV	Open Pollinated Varieties
R^2	Coefficient of determination
SDG	Sustainable Development Goals
TPB	Theory of Planned Behaviour
UN	United Nations
UPM	Universiti Putra Malaysia
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WFP	World Food Programme

CHAPTER 1

INTRODUCTION

This section provides an overview of the study. It highlights the motivational factors. Besides, the main objectives and the practical and theoretical significance of the study were discussed.

1.1 Background of the Study

The population growth of the world was projected to increase from seven billion in 2014 to nearly nine billion by 2050 (Sule & Ehigiator, 2015). Sub-Saharan Africa (SSA) was expected to increase from about 950 million in 2016 to nearly 2.1 billion in the same year (OECD, 2016). Nigeria's population was forecasted by the same year 2050 to almost 399 million people, with an annual population growth of 3.2% against the current population of 198 million (Adeyemo, 2018). The rapid growth of the population in developing countries is higher than the increment of food production (Valbuena et al., 2014). This led to a warning declaration of famine in 2017 to Somalia, Yemen, and Nigeria by the UN Food and Agriculture Organisation (FAO) and the World Food Programme (WFP) (FAO et al., 2017). Likewise, the Cadre Harmonisé report (2018) confirmed that over 3.8 million people required crucial consideration of food in the world and the majority of them were from developing countries.

The level of poverty in Nigeria remains high. It was estimated that about 46% of the population in 2009 and 49% in 2017 lived below $ 1.90 (2011PPP). The Bretton Woods institution report of 2016 indicates that the poverty rate is increasing in Nigeria, particularly in the Northwestern zone, as it accounted for 87 percent of the poor in the country in 2016. Besides, many people were vulnerable at poverty level (Awojulugbe, 2020). This situation leads to difficulties in getting food, as food consumption requires almost three-quarters of the spending budget of low-income households (World Bank, 2018).

1.1.1 Paddy Production

Rice is one of the foremost imperative food crops that source the required calorie intake in the world. It has been acknowledged by more than half of the globe's population (Udemezue, 2018). Asian countries, such as China, India, Indonesia, Thailand and Singapore, are the major top rice producers in the world, with almost a share of 90.4% of world production,: USA, 5%, Europe 0.6% and 4% for Africa (FAOSTAT, 2019b). The world rice consumption expanded by an additional 5.2 million tonnes in 2018/19, and reaching to 509.1 million tonnes. While the annual globe paddy production increased by 10.3 million tonnes to a new high of 769.9 million tonnes (FAO, 2018a). Although there was an increment of 1.4% growth of world rice production in 2017 compared to

2016. As indicated in Figure 1.1, the production continued to increase yearly from 2009 until 2014 and slightly declined due to climate changes. Besides, since 2015, the production has continued to increase due to the current state support and improvements to producer's prices. Generally, population increment, income growth, urbanization patterns as well as changes in family working structures leads the demand for rice to increase substantially from various majority of the populace (FAO, 2013).

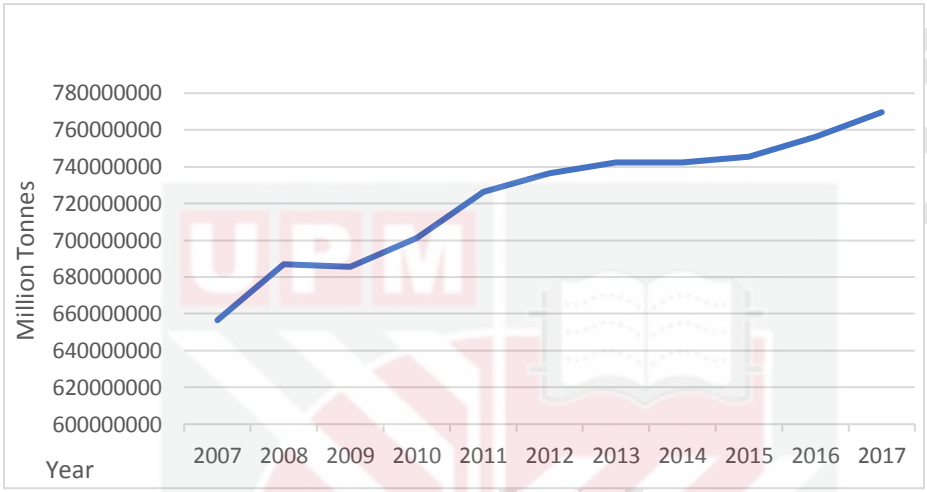

Figure 1.1 : World Rice Production 2007-2017
[Source: (FAOSTAT, 2019)]

However, the adverse global weather change and flooding among most paddy-producing countries and inconsistent rain in West Africa are among the challenges to paddy farming (FAO, 2018a). It was reported that paddy production decrease by 3.8% in Asian countries that are the major producing nations due to climate changes. Also, an increase in average global temperatures may reduce paddy crops by 15 – 35% in Africa, and by 25–35% in the Middle East. These weather impediments are some of the factors that decreased Asian production to only a small (0.7 percent) annual increase to 686.7 million tonnes in 2017. Africa's production stood at only 32.1 million tonnes due to the variation of rainfall (FAO, 2018a, 2018b). Nevertheless, it was estimated that in Nigeria, about 12.4% of the paddy produced was wasted due to post-harvest losses and other challenges (KPMG, 2019).

Nigeria is one of the major importers and consumer nations of rice in the world, with an annual consumption per capita of 35 kg. The average paddy production was 4.5 million tonnes in 2018, with an average of almost 1.8 tonnes paddy per hectare. Paddy farming played a great role in food security and raising farmers' income and employment to the populace of Nigeria than any other cash crops in the country (FAO, 2020). The sector provides 20% and 80% for food crops and cash, respectively. It also provided employment to about 1.43 million smallholder farmers in the 2018/2019 season (KPMG, 2019). Yet, the country utilised only 3.2 million hectares (meeting about 50% of its local demand) out of more than six million hectares of land for paddy cultivation (Scott et al.,

2017). The sector has the potentials to produce more output, considering the increase in demand for rice as well as the motivational factor of price and the availability of fertile land. Recently, sales increased by 61.3% due to an increase in price because of banning on importation (KPMG, 2019).

Table 1.1 shows the increase of the domestic paddy production of 9.8% in 2014 to 13.1% in 2019 due to the provision of government supports and banning of rice importation in the country. Production slightly decreased in 2017 due to the possible delay in subsidized farm inputs delivery to farmers as well as an increase in the price of agricultural inputs. However, the consumption growth increased from 9.9% in 2014 to 11.1% in 2018. Consumption (MT) exceeds production (MT) with a yearly average production deficit of about 2.3 million tonnes. This relates to annual population growth, urbanisation growth, and the change of income structure. This deficit is a challenge to national food security, as it was forecasted that the demand for rice may reach about 36 million tonnes by 2050 (FMRD, 2011).

Table 1.1 : Nigeria's Domestic Rice Production and Consumption 2008 – 2017

Year	Domestic Production (000) MT	Area harvested (hectare), 000	Productivity	Production growth rate (%)	Consumption (000), MT	Consumption growth rate (%)
2010	2818	2433	1.16	7.30	4800	7.82
2011	2906	2269	1.28	7.50	5600	9.13
2012	3423	2864	1.20	8.89	5700	9.29
2013	3038	2931	1.04	8.61	5800	9.45
2014	3782	3082	1.23	9.83	6100	9.94
2015	3941	3122	1.26	10.24	6400	10.43
2016	4536	3170	1.43	11.78	6700	10.92
2017	4470	3600	1.24	11.61	6750	11.00
2018	4538	3350	1.35	11.78	6800	11.08
2019	5040	3500	1.44	13.09	6700	10.92

(Source: Index Mundi 2019)

Moreover, Table 1.2 shows that paddy contribution to total cereals production increased from 14.04% in 2011 to 16.15% in 2017. While agriculture GDP improved from 3.2% in 2014 to 6.02% in 2017. This may be associated with the price increases of domestic rice and the commitments of the federal government to diversify the economy due to a reduction in foreign earnings. The importance of paddy in food security and economy led to focus recent food studies on the sustainability of paddy production since the beginning of the 21st century (Chen et al., 2019).

Table 1.2 : Contribution of Domestic Paddy Production to Agricultural Sector Nigeria, 2008- 2017

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Paddy ratio contribution to annual crops production MT (%)	8.71	10.50	11.43	14.04	15.98	15.47	15.43	15.48	13.72	16.15
Contribution of domestic paddy to Agricultural annual GDP (%)	3.84	2.31	2.45	2.40	3.01	2.65	3.23	5.1	5.45	5.92

Compilation and computation by the Author
(Sources: World Bank, NBS, USDA & CBN, 2019)

1.1.2 Farming Technology

The concept of farming technology incorporates the application and processing of biological, mechanical and chemical methods of both old and new methods at the farm level, where training, education and information are the foundation of farmers' knowledge (OECD, 2001). Therefore, modern farming technology is a tool used to improve the extensive kinds of production methods employed by farmers. Changing consumer demands, climatic change, and urbanisation due to population growth globally have caused intense changes in farming practices (Tsinigo & Behrman, 2017b).

The adoption of Nigeria's fertilizer was proved to be below the recommended quantity (Adeoye, 2006). For instance, in Figure 1.2, fertilizer consumption continued to decrease from 10kg/hectare in 2006 to about 5.3kg/hectare in 2009, while it increased to 12.2 kg/hectare in 2010. The increase of consumption from 2009 to 2010 is connected to the massive support of providing fertilizer at a subsidized rate by the government at all levels. However, due to poor economic conditions, government support started to decline and made fertilizers more expensive to farmers. This led to a decline in consumption from 2010 to 2011. It increased again in 2011 till 2014, before it declined from the same year to 2016. and stood at 5.4 kg/hectare. This is associated with the economic recession Nigeria found itself due to fall in the price of oil in the international market. However, many studies found that the fertilizer used in paddy farming far below the recommended quantity to be used (Chidiebere-mark et al., 2019; Ezui et al., 2010; Kamai et al., 2020)

Figure 1.2 : Fertilizer Consumption in Nigeria 2006-2016
(Source: World Bank Database)

Certified seeds (seeds that undergo a formal process before authentication by a formal organisation) is seen as a great tool to increase farming production and the productivity of the farmer's labour (Vizcayno et al., 2014). However, the rate of certified seeds used by smallholder farmers in Nigeria is very low, as only 10% of paddy planted areas use certified seeds. This was associated with reliance on recycled seeds, the high price of certified seeds and those easily accessed from unauthorized markets at the cheapest price (USAID, 2016). This has been linked to the poor production of paddy, as in most cases the seeds accessed from black markets were already expired (FMARD, 2016).

Also, the tractor used in paddy farming was found to be very small because of poverty in rural areas and the small size of land (Takeshima et al., 2014). It has been found that the use of the tractor covered only 8% of cultivated land despite a population of over 193 million people in Nigeria. Table 1.3 shows a slight increase in tractor use from 5.4% in 1999 to about 7% in 2007. This might be connected to an increase in paddy production and the expansion of farms, which aids the participation of the youths.

Table 1.3 : Nigeria Agricultural Machinery, Tractors per 100 sq. km 1999-2007

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
Agricultural machinery, Tractors per 100 sq. km of arable land	5.4	5.5	6.1	6.2	6.3	6.6	6.4	6.5	6.7

(Source: World Bank, 2019)

1.1.3 Farm Input Subsidy

Nigeria's farming is characterized by many smallholders, low adoption of farm technology and inputs, insufficient access to credit from financial institutions and an increase in demand for foods (rice included), among others (Morris et al., 2007; Sibande, 2017). These challenges inspired many developing countries to implement collective large-scale input subsidy programs during the 1970s and 1980s (Mason & Ricker-gilbert, 2014). However, the introduction of the Structural Adjustment Program (SAP) in the 80s and 90s, as suggested by the World Bank, led to the removal of subsidies in most of the Sub-Saharan Africa (SSA) (Liverpool-Tasie, and Takeshima, 2017; Ricker-Gilbert et al., 2013). Nevertheless, after the 2003 Maputo Declaration, the world witnessed an increase in subsidies and the commitments of many developing nations on farming (Jayne & Rashid, 2013). They reintroduced agricultural "smart subsidies''. The objectives of the program included among others; private partnership participation in the fertilizer market and supply harmonizing inputs, the establishment output markets and suitable sequencing involvements (Morris et al., 2007).

Nigeria's government executed a large-scale input subsidy of the Growth Enhancement Support Scheme (GESS) program in the year 2012 aimed at boosting food security by making fertilizer and improved seeds more accessible and affordable to smallholders. The program provided a 50% subsidy on two 50-kg bags of fertilizer (NPK and Urea) and a 90% subsidy on a 50-kg bag of improved seeds (typically maize and rice) through e-vouchers, which were received via mobile phones given to farmers for easy communication to them (Wossen et al., 2017a). Nigeria usually spent not less than $ 2.8 million (N1bn) on rice consumption annually as food subsidy, as the country could supply 49% of domestic demand (Udemezue, 2018). In 2019, over 200, 000 paddy farmers benefitted from loans at zero interest from the Anchor program under the federal government (Leadership, 2019).

1.1.4 Youth Participation in Farming

The population growth of youth in the world reached almost 1.2 billion and the highest percentages are from Sub-Saharan Africa nations, South Asia, Middle East, East Asia, Latin America, and North Africa. Indeed, it was estimated that by the year 2030, about 440 million young people would enter the rural labour market (World Bank & IFAD, 2017). Decelerating the worldwide employment growth and the underemployment of most youths, who are confronted with higher unemployment rates and other calamities led world leaders strive towards addressing the threat. Besides, the agricultural sector was regarded as an area in which many youths in the rural areas of developing nations could be employed and utilised (IMF, 2018).

Nigeria is one of the largest youth population countries in the world (World Bank, 2018). The NBS report indicates that youth unemployment and underemployment labour force (18-35 years) are increasing above 40% and the majority are involved in work with low skills or work for less than 20 hours a week or the work fail to match with their

qualifications or skills. Likewise, out of the total national unemployment rate of 27.1%, the unemployed and underemployed of those aged between 15-24 stood at about 71.3% (NBS, 2020). Moreover, about 47% of Nigeria's university graduates were unemployed annually (Kazeem, 2016), despite the great improvement of the literacy rate among the youths at 72.79% in 2016 (Trading, 2018).

Consequently, Table 1.4 shows the annual rate of both the unemployment and underemployment of youth stood at 70.50% in the year 2014 before it was dropped to 48% in the year 2015 until 42.50% in the year 2017. This was attributed to the execution of many programs for empowering youths. These include among others N-Power, Anchor Borrowers and the increase of NYSC allowances. While the decline of labour productivity from the year 2013 was attributed to the inability of many sectors to employ skilled and energetic youths who could comply with the current challenges.

Table 1.4 : Nigeria Unemployed and Underemployed (15-34 years) Youth and Productivity 2012-2020

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Unemployed and Underemployed youth (%)	53.00	57.00	70.50	48.00	35.00	42.50	-	-	55.70
Labour productivity ($)	3.51	3.78	3.77	3.61	2.24	-	-	-	-

(Source: Compilation by a researcher from NBS & CBN documents)

1.1.5 Extension Connectivity

The connectivity of people and businesses has become a central device on the use of the internet and mobile phone technologies, whereby recently both play a vital role in numerous occupations (Castellacci & Viñas-Bardolet, 2019). Sub-Saharan Africa has improved in using connectivity technology. Thus, extension connectivity refers to a tool of technology that provides access to information and communication, financial services, increases the income of farmers, increases the productivity and efficiency of farming and assists in increasing food production, and better livelihoods. This includes the use of mobile phones and the internet, among others (Vodafone Foundation, 2015). Today, in modern society, the application and usage of ICTs play a great role in world development, as set out in the Sustainable Development Goals (SDGs) of the United Nations (Gillwald et al., 2018).

Figure 1.3 shows that mobile cellular subscriptions (per 100 people) continue to rise from 41.90% in 2008 to about 83.25% in 2015 before declining to 75.92% in 2017. Also, mobile subscriptions in Nigeria reached almost 84% of 162 million of the population (Guardians, 2018). Similarly, there was a growth in internet subscriptions from 2008 to 2017. For instance, as of 2008, the subscription was 8% of the total population, while

accessibility continued to rise to 27%. This shows how both mobile cellular and internet used were patronized and used among Nigerians.

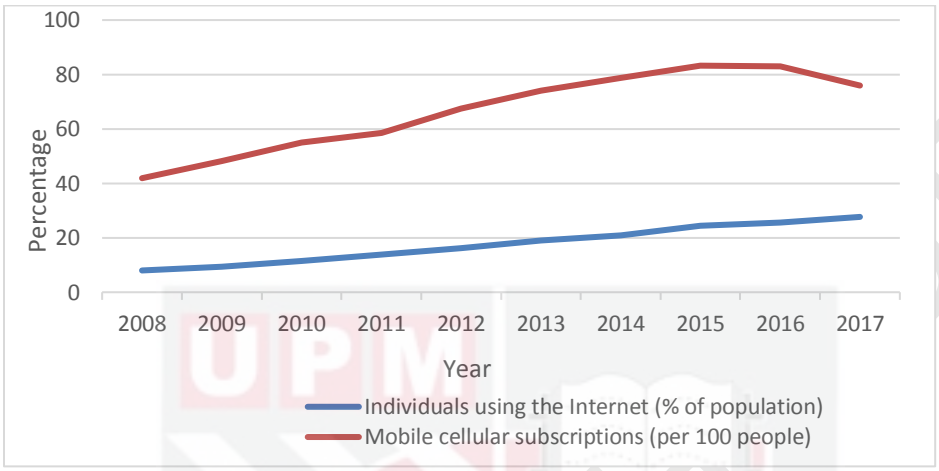

Figure 1.3 : Nigeria Internet and Mobile Cellular Subscription, 2008-2017
(Source: World Bank, 2019)

Furthermore, extension connectivity can play an important role to assure the effective exchange of information, experience and knowledge among stakeholders and in finding innovative solutions for agricultural development (FAO et al., 2015). It can influence attention of youths to agriculture through effective agricultural extension services, such as entrepreneurship development, promoting scientific farming and agri-business, and guiding, NGO participation and creating awareness (Som et al., 2018). Similarly, the use of extension connectivity in farming has been recognised as a great way of providing information to farmers on soil conditions and weather patterns, market information, extension information and promoting transformative agricultural development (World Bank Group, 2016). However, it was reported that rural smallholder farmers in Nigeria needed information on farm crop production, climate, markets, farm inputs and extension counseling (Phiri et al., 2019). Therefore, it is vital to mobilize the youths to venture in paddy farming careers and use their potentials to discover innovative and future-oriented farming approaches (Nature & Faune, 2013) through the utilisation of extension connectivity.

1.1.6 Access to Credit

Access to credit can expedite crop processing and marketing services as well as the purchasing of farm equipment and inputs, such as improved seeds, labour and planting materials which in turn can improve welfare of the farmers (Ali & Awade, 2019). Recently, many countries in the world have strengthened their effort towards providing and easing the processes of credit accessibility to farmers. This is in the belief of any existing hurdle in accessing funds in a rural area leading to a deterioration in food supply

and affecting GDP in poor countries (Linh et al., 2019). The ability of youths to access financial services can play a direct role in their gainful employment and improved livelihoods (Youth, 2014).

However, about 1.7 billion households and adults continue to be without access to financial institutions especially from developing nations, such as India, Bangladesh, Indonesia and Nigeria, among others (World Bank, 2017). Although, there was a substantial level of growth in Nigeria's financial sector because of the implementations of various initiatives for greater access to financial services. However, about 42 per cent of the population is still financially excluded (Abraham, 2018). Also, despite tens of financial institutions that are responsible for giving out agricultural credit to smallholder farmers under the supervisory of the Central Bank of Nigeria (CBN), yet it was reported by the Convener of Arewa Research and Development Project (ARDP) that over ninety per cent of smallholder farmers in Nigeria have limited or no access to credit institutions from conventional banks (Oluwadare, 2019). The Nigerian government claimed the provision of funds to paddy farmers, yet many farmers have a complaint on poor or non-credit access (Daily trust newspaper, January 26, 2018: Gabriel, 2018).

Correspondingly, Nigeria's farmers, rural youths included, are commonly limited in accessing credit by the requirements often needed by financial institutions. Therefore, inadequate credit facilities in Nigeria continue to be a critical bottleneck to paddy production and involvement of rural youths in paddy farming. Therefore, there is an assertion that an increase in accessing credit through the Anchor Borrowers Programme may lead to an increase the domestic grown paddy production in Nigeria and employ the teeming youths (Evbuomwan & Okoye, 2017; Olanrewaju et al., 2020).

1.1.7 Background Study of Nigeria

Nigeria is a country that comprises six geopolitical zones and lies in the eastern part of the West African border with Niger and Chad (north), Cameroon (East), and Benin (West). The country has six geopolitical zones, namely the northwest, the northeast, the northcentral, the southeast, the southwest and the south -south. It is blessed with fertile land for growing various food crops, such as rice, wheat, sorghum, millet, tuber and vegetables, and animals, among others. It was also blessed with mineral resources, such as oil, coal, limestone, gold, quartz sand, tin, and nickel, among others. Also, Nigeria has the largest economy in Africa in 2014 (Babua et al., 2018) with an estimated population of 193 million (NBS, 2016a). About twenty-eight states out of thirty-seven are paddy-producing states. The study areas of Kano and Jigawa states were selected due to their higher number of unemployed youths at about 4 million (Sagagi, 2019), despite the availability of fertile land for paddy farming and the incentives given to paddy farmers by the government.

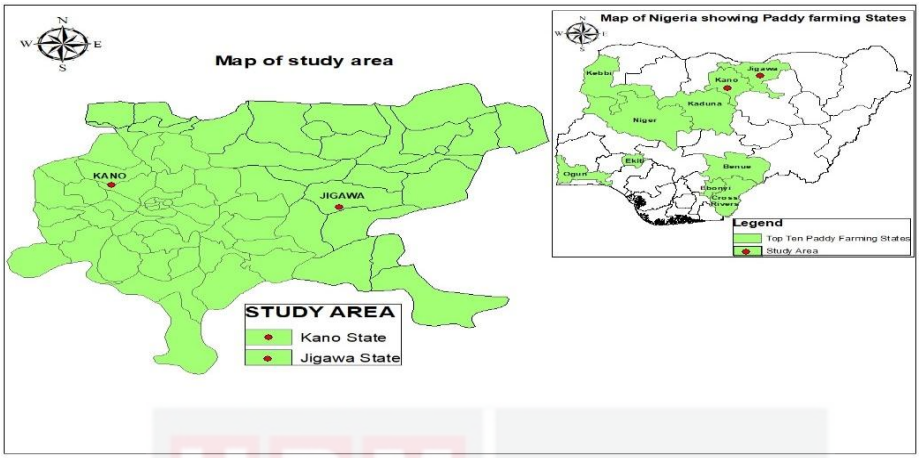

Figure 1.4 : Nigeria Paddy Growing States

1.1.7.1 Kano State

Kano is one of the seven states of the Northwest zone, Nigeria. The state has forty-four local government areas and three senatorial zones with a total land area of 20,760 square kilometers. Most of the people of the state (approximately 75 percent) are either directly or indirectly engaged in farming for their livelihood. The state remains the largest populated in Nigeria, with an estimated population of 13,076,892 (Adeyemi, 2016). It is one of the top paddy producing states in the country with a large portion of unutilized land. Other staple food produced include maize, rice, wheat, sorghum and millet, among others (NBS, 2016). Also, the state has irrigated dams for irrigation and farming throughout the year. Among them are Tiga, Bagwai, and Karaye (Kano State, 1998). Furthermore, the state has the highest number of labour force among Northwest zone states with about 3,713,679 (NBS, 2017). Thus, six local government areas were selected from the state. These are Kura, Bunkure, Bagwai, Gwarzo, Madobi and Dawakin Kudu.

1.1.7.2 Jigawa State

The State was carved out from the old Kano state in 1991. It has twenty-seven local government areas with an estimated population of almost 5.8 million people (NBS, 2017). The state is blessed with rivers and great fertile land for appropriate crops, such as maize, rice, millet, beans, and wheat, among others. Most people in the state are food crops farmers. Although the state is one of the paddy producing states, several governments offered different kinds of incentives to farmers. Yet, the farming system is still traditional (Ministry of Agriculture, 2013). The local government areas selected are Auyo, Kafin Hausa, Ringim, and Garki.

Academic and policymaker intense their interest in food security and poverty reduction to avert the recurrence of the 2008 food crisis problem where over 40% of poor people's expenditure was on staple foods (Dawe, 2010). Besides, in Nigeria different kinds of farm subsidies and credits were given to paddy farmers to meet the local paddy demand of the massive population growth in the country and provide employment. However, there is a huge paddy production deficit and a massive number of unemployed, precisely youths in the country despite the availability of fertile land. Kano and Jigawa are among the paddy-producing states blessed with fertile paddy land, a higher number of youth and providing farm subsidies to paddy farmers at all the tiers of government. Yet, these states are among those characterised with a massive number of people that could not access food and have a higher number of drugs abuse youths. Drugs abuse among the youths was connected to unemployment. Therefore, addressing these problems could utilise the abandoned paddy fertile land at an optimum level by adopting effective farm subsidies distribution and access as well as providing a method to ease access to credit from financial institutions. This could provide sufficient food for the country, export more paddies to neighbouring countries, provide employment to the populace, precisely youths. Failure to address these problems might escalate the insufficient supply of paddies in the country. This may cause famine, social strife and other criminal activities. Therefore, this study examined "The Antecedents of Paddy Production in Nigeria: A Case of Kano and Jigawa States".

1.2 Statement of the Problem

Nigeria has launched various programs and established several agencies to improve paddy production. Yet, the annual paddy production does not sufficiently cater for domestic consumption, as shown in Table 1.1, despite the availability of abundant fertile land for paddy farming. These include the National Accelerated Food Production Program (NAFPP) (1972), National Cereals Research Institute (NCRI) (1974), Federal Rice Research Station1 (970) (FRRS), Directorate of Foods, Roads and Rural Infrastructure DFFRI (1986), National Economic Empowerment and Development Strategy NEEDS (2008), New Rice for Africa Varieties (NERICA) (2008), Transformation Agenda (2012) and Fadama III (2013). In addition, the demand for rice was projected to reach 36 million tonnes in 2050 against the current average production of 5 million tones.

Also, the importation of rice was banned to promote local production and food sufficiency and mitigate the possibility of famine in the country in the event of any production problem in those countries Nigeria imports from. This is more visible, looking at the growth of rice consumers across the world, coupled with weather conditions, particularly among the top rice-producing nations in the world. The situation has become a serious challenge that paddy production may soon be unable to meet not only Nigeria' demand but the world at large. Figure 1.1 shows that the world paddy production was still within 769MT in 2017 against 756MT in 2016. The increment was little due to flooding in Asia, weather change in the USA and inconsistent rain in West African producers, Nigeria included.

Inadequate access to farm technology, such as fertilizer, certified seeds and tractors, despite the provision of farm subsidies and coupled with rapid population growth, has become a serious issue in Nigeria. For instance, there was low adoption of fertilizer used by farmers against the recommended use, as 320kg/hectare of blended NPK (20:10:10) for low fertile soil and 142kg/hectares of Urea for high soil fertile, as shown in Figure 1.3 The 5.88 kg/ hectares in 2008 was recorded and increased to 12.2 kg/ hectares in 2010 and 5.4 at kg/ hectares in 2016. Equally, only 10% of the paddy planted area used certified seeds while most farmers preferred to use either recycled seeds or purchase from the black or open market where most are counterfeit. Moreover, since 1999 Nigeria's use of the tractor has been low. Although some literature claimed eight tractors were used per 100 sq. km, it was still very low. Further, the government provides funds at an average of not less than $ 2.8 (N1bn) at a subsidized rate to boost paddy production. It was reported last year alone that over $ 167 million (N 60 billion) was provided to paddy farmers through Anchor borrowers. Yet, the country was only capable to supply 49% of domestic demand (Udemezue, 2018).

Though, the rate of literacy is increasing among the youths, yet the number of unemployed among them is increasing. Correspondingly, access to both mobile phones and the internet continued to increase as indicated in 2006. Access stood at 22.6% and 5.54%, respectively. It improved to 82.98% and 25.67% in 2016, respectively. This increment was expected to impact positively on all the sectors of the economy by giving more opportunities to many businesses, including paddy farming to access new farming techniques, market information, farm products, and the ease transportation of crops. This will aid to employ more youths. On the contrary, the rate of youth unemployment was about 56% and almost half of the paddy land remains unutilised in the country. Furthermore, the suggestion made by the World Bank (2019) to developing countries on the technological adoption in farming, so that more youths can be employed, this may likely cause unemployment. These countries (Nigeria included) have the challenge of excess supplies of unskilled and semiskilled labour relative to demand. The limited resources of these countries may prevent them to develop technology and pursue innovation independently. Thus, technological and connectivity adoption may likely create employment at the expense of output and employment losses in non-innovative counterparts (Mitra & Sharma, 2020). Also, insufficient empirical studies on the connectivity technology and youths participation in paddy farming were attributed to the primary cause of insufficient policy guidance in attracting youths to venture into farming in most developing nations.

Although, the financial sector recorded great achievements from various program implemented. However, the financial exclusion of about 42 percent of the Nigerian population which lead to the massive number of farmers (90 per cent) who could not access credit despite the existence of different banks and availability of funds has become a threat to the development of the paddy sector in the country. Even though, the government has claimed of providing funds to paddy farmers, it was reported that many paddy farmers complained about the challenges they faced to access credit. Some viewed these challenges as insufficient information upon the procedures to access credit. While some viewed the inability to fulfill the major credit requirements such as administrative documents, presenting guarantors, collateral, interest rate and the ability to pay the credit

within an agreed period, among others, as the major stumble of the inability of paddy farmers to access credit in the country.

Empirically, most of the previous works on farm technology have mainly focused on either one or two farm inputs, particularly fertilizer and certified seeds. While even those literature that studied two or more farm technology were mainly focused on the factors of determinants inputs used. Some literature used farm technology as an added control variable to examine crop regressions. In addition, the scanty literature that studied multiple farm subsidies and dissimilarity findings of various studies on paddy proved the contentious debates on the significance of this area. This created a literature gap on the effect of more than two subsidized farm technologies on paddy production due to different geographical boundaries and the nature of the farm subsidies received from the government.

Furthermore, most of the literature findings on youths focused on their stimulation to venture into agriculture without specifying the subsector to be involved despite many branches of agriculture, such as fishery, farming and forestry, among others (Bednarikova et al., 2016; Sakketa et al., 2017). Correspondingly, only a few studies conducted on the effect of mobile phones and the internet on paddy farming (Annosi et al., 2019; Shimamoto et al., 2015), even those conducted, to the best of the author's knowledge, there is an absence of a study that analyse the effect of extension connectivity on influencing youths to venture into paddy farming.

Again, many studies established the significant effect of credit on improving farmers' crops production (Saqib et al., 2018). However, there are insufficient studies analysed paddy farmers' access to credit. Even those that existed were mostly focused on the interest rate and collateral requirements. Less emphasis was given to analyse the major credit requirements that include the administrative process, the guarantor, and the duration of principal repayments requirements.

Farm subsidies could boost paddy farming, extension connectivity may influence youths participation in paddy farming and fulfilments of major credits requirements may ease farmers access to credit from financial institutions. These are the models examined by the study. Failure to address insufficient paddy production and massive youths unemployment may ultimately lead to incessant crimes of youths and undermine Nigeria's food policy which may hinder the achievement of the "zero hunger" objective of Sustainable Development Goals. This may lead to the recurrence of the 2008 food crisis.

1.3 Research Questions

1. What is the effect of subsidized farm technology on paddy production in Nigeria?
2. How does extension connectivity attract youths into paddy production in Nigeria?
3. What is the effect of the major credit requirements on paddy farmers to access credit in Nigeria?

1.4 Objectives of the Study

1. To investigate the effect of subsidized farm technology on paddy production in Nigeria.
2. To determine the influence of extension connectivity on attracting youths into paddy production in Nigeria.
3. To determine the effect of major credit requirements on paddy farmers to access credit in Nigeria.

1.5 Significance of the Study

This study provides measures and information to academics and policymakers considering an intense interest in food security and poverty reduction. This will aid in averting the recurrence of the 2008 food crisis problem, especially as for now the sector is confronted with the adverse of global weather change from Europe, the massive growth of population, flood and draught from major world paddy producers and inconsistent rain in West Africa and Nigeria. Moreover, the contribution of paddy production to total cereals production in the 2008 and 2017 stood at 8.7% and 16.15%, respectively. While the contribution to the entire agriculture sector in the same years was 3.84% and 5.92%, respectively. The recorded increases of 2017 were an indication that if efforts can be doubled the sector will contribute more to GDP. This will enable farmers to produce more paddies and provide more job opportunities to the massive population, especially youths. Thus, the findings of this study are vital in promoting food security.

The majority of studies on paddy were more on examining the effect of improving farmers' welfare or on examining farm technology adoption. These studies usually examined fertilizer and seeds. While this study provides the utilisation of subsidized fertilizer use, certified seeds, tractor use and the amount of credit received. The findings revealed the significant role played by subsidized farm technology on paddy farming. This may aid in quantifying the outcomes of government farm subsidies. It may also provide more avenues for the involvement of many farmers including the teeming youths in accessing the farm subsidies. This will increase youths labour involvement in paddy farming. Likewise, the study is important in follow up on the outcomes of farm subsidy, technological utilisation and promotion learned by smallholder farmers. Therefore, the results of the study provide answers for the current debate on subsidy among academics,

policymakers and developed and underdeveloped nations. This information is vital for both financial institutions and policymakers.

Considering the time spent using mobile phones and the internet by the youths, the study explored the time wasted on social engagement that can be channeled to economic gain. This was done by analysing the importance of extension connectivity and farm subsidy in easing and boosting paddy production and influencing youths to venture into farming. Moreover, these findings contributed to the literature, as the field is still developing and more disaggregated information, such as age, gender and level of education are needed to examine the factors that influence involvement of youths in food farming (Giuliani et al., 2017).

The findings may also assist both government and financial institutions to redesign and simplify the major requirements needed for farmers to fulfil before they access to credit. This will increase the number of accessing credits and boost paddy production.

Besides, most previous studies related to this study used cross-country or region macro-datasets. The results cannot be globally accepted to a precis, sole homogeneous society because of the disparity of regions, culture, environment, soil fertility, and climate that resulted in the application of farm technology. This type of study is vital because little is identified presently about the farmers, who use farm technology in many African nations. This is because most governments in Africa do not scientifically report such data like in other parts of the world. Scanty data made it difficult to know how to design policies intended to improve agricultural productivity. Therefore, this study provides information that can aid in designing food and youths policies.

Moreover, this study has answered the clarion call made by international development agencies to developing nations on intensifying research in agriculture. However, efforts were made in animal husbandry, poultry, fishing and forestry and crop farming. Several literature studied different crops, such as maize, wheat and millet, among others. However, little attention was given to paddy farming about studies on food crops.

Briefly, the findings aid developing countries, such as Nigeria, to achieve sustainable development goals, by identifying the effect of subsidized farm technology on paddy farmers and exploring more opportunities for teeming youths and aid policymakers, private and NGOs in the areas of job creation, poverty reduction, food security and development. The findings of this study perceived at the right time when the Nigerian government is putting more effort towards revamping the economy by diversification, especially to agriculture. This cannot be achieved if it fails to develop the food sub-sector, particularly paddy farming production, which alone contributed almost 6% share to the entire agriculture GDP in 2017. It was on this background that this study attempted to examine the effect of mobile phones and internet users on attracting youths into paddy in Nigeria.

1.6 Scope of the Study

This study focused on understanding the effect of the subsidized farm technology given to paddy farmers, investigating the effect of extension connectivity in influencing youths to venture into paddy farming and identifying how the major credit requirements set by financial institutions affect paddy farmers access to credit. Kano and Jigawa were selected among the paddy states in the country because the former is one of the major paddy farming state and the most populated state with a high number of youths in the country, which received government attention in providing incentives. While the latter is currently one of the emerging paddy states that attract the commitment of the government in resource allocation and the private sector.

The data were collected within four months (April- August 2019) from rained paddy farmers. This is because it is a period which attract many farmers to engage into paddy farming. The respondents are either male or female and attained the age of eighteen years and above, except extension connectivity information that was received from the youths (18-35 years old) in the paddy farming. Also, the farm subsidies given to farmers were restricted to those who received them in any form from the government on fertilizer, certified seeds, tractor services and credit from financial institutions. The financial institutions' requirements to issue credit to farmers were restricted to fulfillment in the administrative process, guarantor, collateral, interest rate and the duration of principal repayment. The study coverage is considered the homogenous nature of the research population (Ploger et al., 2017), as well as time frame and resource constraints. Also, issues surrounding the respondents to reveal their improvement in their businesses or experiences in the level of acceptance change are sensitive and classified. Thus, respondents are not entirely willing to disclose. The same challenge is widely recognized by other studies (Berry et al., 2007)

1.7 Definition of Key Terms

For a clear understanding of this study, some important terms were clarified and defined conceptually and operationally in the context of this study. The definitions can guide readers to a clear picture of the study. While researchers can be guided in the context of data collection, data analysis and the findings (Cresswell, 2012). The defined key terms are as follows:

1.7.1 Subsidized Farming Technology

This is defined as the farming technology incentives and supports provided by the government to enable farmers' access farm inputs at a lower price. This comprises fertilizer, certified seeds, tractor services and credit received from a financial institution.

1.7.1.1 Subsidized Fertilizer

The term "fertilizer" refers to inorganic industrial products that source plant nutrients (Wakeyo & Gardebroek, 2013). Policymakers suggest incentives be provided to allow smallholder access to fertilizer below-market prices (Wildayana & Armanto, 2019). Thus, subsidized fertilizer in this study refers to the amount of fertilizer a farmer received from the government at a subsidized rate.

1.7.1.2 Subsidized Certified Seeds

Certified seed passed from different technological stages that qualified to be officially approved. This means it has satisfied the indispensable conditions that would have more quality and will yield the desired output (Iqbal et al., 2016). Subsidized certified seeds in this study refer to the quantity of certified paddy seeds a farmer received from the government at a subsidized rate.

1.7.1.3 Subsidized Tractor Services

Africa in recent years has improved mechanization by providing machines and equipment, hiring services and repair services at a subsidized rate. While in some cases, there is a partnership with the private sector (Diao et al., 2016). Subsidized tractor services here, refers to a subsidized service that a tractor render to a farmer at a subsidized rate.

1.7.1.4 Credit from Financial Institutions

It is the amount of credit received by farmers from a financial institution at the government-subsidized rate. The imperative need for capital requirements in promoting crop production and productivity necessitated countries, mostly developing ones, to provide credit to farmers (Ali & Awade, 2019; Chandio et al., 2017: Khanal & Regmi, 2017). In this study, credit refers to the amount of money received by paddy farmers from banks at a subsidized interest rate, as instructed by the government.

1.7.2 Youth

Some scholars defined youth from different age ranges and stage of life, which is categorized by specific changes, attitudes and wishes (Assaad & Krafft, 2016; FAO, 2002; Leavy & Smith, 2010). The UN (2009) defined the youth as people between 15 and 24 years of age. Baseline Youth Survey Report defined youth that the age bracket in Nigeria starts from 18 – 35 years old (NBS, 2012b). Therefore, this study used the definition of paddy farmers who are male or female within the age bracket of 18 – 35 years old (NBS, 2012b).

1.7.2.1 Youth Labour Demand

The shortage of young people in farming activities may lead to poor farm income, social infrastructure and commonly low life expectancy in rural areas (NBS, 2017b). Thus, youth labour demand is the willingness of firms to employ youth for participation in paddy farming. Youths participation in farming can increase per capita incomes and improve economic growth in the nation (World Bank & IFAD, 2017).

1.7.2.2 Youth Attracting into Paddy Farming

It is the willingness of youth to embrace paddy farming as an occupation due to the influence of factors. These include, among others, the influence of parental upbringing, peer groups, inability to secure a better job, ability to use extension connectivity to access information and profit offered, among others (Tripathi et al., 2018).

1.7.3 Access to Credit

This refers to the ability of a paddy farmer to obtain credit from financial institutions through undergoing the process (Linh et al., 2019). Therefore, in this study access to credit refers to the ability of a farmer to secure credit from financial institutions after passing some conditions set by financial institutions.

1.7.4 Major Credit Requirements

The provision of credit to agribusiness entrepreneurs is characterised by various requirements, such as complex application procedures, unfavorable interest rates, and information asymmetries, among others (World Bank, 2013). Thus, in this study, major credit requirements refer to the conditions set by the financial institutions for credit applicants to fulfill before offering them credit. This includes administrative process, which is filling application forms. Others are guarantor requirements, collateral requirements, interest rate and the duration of principal repayment.

1.7.4.1 Administrative Process Requirement

It is a bureaucratic process that requires the necessary documents to be attached to the borrower's application form. Sometimes, it can take a long time before approval is granted (GAO, 2019). This study refers to the administrative process as filling the credit application form and other necessary administrative documents requested on the credit application and the duration before approval is granted.

1.7.4.2 Guarantor Requirement

The guarantor (full or partial) is a 'blended finance' instrument that grants the effective use of scarce public resources to mass in private capital. Therefore, an effective guarantor requirement is to signify a promise of timely and complete service payment up to a scheduled amount regardless of default or cause. It is to recover debt from defaulters whom they stand for, provide and ease a successful transaction and reduce the probability of non-payment of debt (Holle, 2017). In this study, the guarantor requirement refers to any person or institution provided by a paddy farmer to serve as his guarantor.

1.7.4.3 Collateral Requirement

This instrument is needed by financial institutions, so that it can be offset whenever the borrowers fail to pay back the agreed amount of loan and interest promised to pay. There are numerous kinds of collaterals that are required by financial institutions. These may include land, income, house, livestock, wage accounts and gold, among others (Chandio et al., 2019). Therefore, this study refers to collateral as any valuable item agreed to be received by a financial institution as a collateral from paddy farmer.

1.7.4.4 Interest Rate Requirement

Interest is the amount of funds paid by the borrower for the use of principal funds as saved by the lender and the reparation to the lender for his observing expenses (OECD, 2013). This study refers to the additional charges on the principal received over a period usually seasonal period as interest rate.

1.7.4.5 Duration of Principal Repayment

The challenges of natural disasters as well as farmers' perceptions that the loan received is free money are the major factors that cause farmers' inability to repay the loan (Nagahage & Dilrukshi, 2012). However, the duration of principal repayment refers to the period a credit receiver is expected to complete the payment of the principal.

1.8 Organisation of the Study

This study is generally organised into five chapters. Chapter One presents introduction of the study; it covers the background of the study, statement of the problem, research questions and objectives, the significance of the study, scope and definition of key terms as well as organisation of the study and summary of the chapter. Chapter Two comprises the discussion on the concept and review related literature of previous studies as well as the theories that were grounded to establish study gaps in this study. These include,

among others, farm subsidy, farm technology use, which comprises fertilizer, certified seeds and tractor, and extension connectivity. Other variables discussed were youths in agriculture, access to credit, and some major financial credit requirements.

Chapter Three highlights the methodology employed in the study. This includes research design, sampling techniques and sample size, questionnaire design and distribution procedures, as well as modeling technique and estimation models that include OLS and Binary logit in the analysis. Chapter Four presents both socio-demographic and estimation results. For clear understanding, graphs and computed percentages in Tables as well as different estimated models were used in presenting the results. Finally, Chapter Five presents a summary of the findings of the study, study implications, conclusions, and recommendations based on the findings. The limitation of the study and further studies were also suggested.

1.9 Summary of the Chapter

This chapter focused primarily around the background of the study as an introductory chapter. Motivational study issues were raised. The population is growing massively, and the government provides subsidies on various farm inputs and available credits. Yet, domestic paddy production is insufficient despite continuous increasing demand. Also, the existence of teeming unemployed youths has been discussed, particularly certificate earners. Therefore, the broad objective of the study is to assess government efforts towards boosting paddy production and providing jobs for the teeming youths in paddy farming in Nigeria.

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