

Analysis of women crop farmers' access and utilisation of agricultural credit in Yola South Local Government Area of Adamawa State, Nigeria

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ABSTRACT

Accessing financial resources is critical for achieving improved productivity in the farming business. The objectives of the study were to describe women farmers' socio-economic characteristics; identify agricultural credit sources, and examine how such funds were utilised by the participants. The multistage sampling technique was used to collect primary data from 148 women crop farmers in 12 communities in the study area using a semi-structured questionnaire. The study revealed that the majority of the respondents were relatively young (with an average age of 41 years) and most (59.1%) were married with an average household size of 7 persons. Similarly, the majority of the participants were small-scale farmers with an average farm size of 1.7 hectares, rely (64%) on informal credit sources and the credit accessed was expended on the purchase of farm inputs, while some portion was used to meet family needs. This study recommended, among others, that formal financial institutions should implement policies that will boost the capacities of informal sources (like cooperative societies and other associations) to access a large volume of credit that they can distribute to their members.

HIGHLIGHTS

- Credit sources available for women farmers in Adamawa State, Nigeria were analysed.
- Most of the farmers in the State are young ($\bar{x} = 41$ y)
- Credit facilities are only available for small scale farming
- Women assess financial credits to procure farm tools and settle family needs

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1. Introduction

The Nigerian economy at the grassroots is heavily reliant on agriculture, as the majority of households derive their livelihood from the sector (Danuvus, 2016). Equally, at the national level, the sector has been a substantial contributor to the Gross Domestic Product (Rahji and Fakayode, 2009). Across the various parts of the country, participation in agricultural activities varies with locations. For instance, the livelihood of most (about 80%) residents of Adamawa State depends on agriculture as the mainstay. Likewise, to a broader economic context, Adamawa State GDP relies heavily (53.7%) on agriculture (Food and Agriculture Organisation, FAO, 2019a). The role of women in undertaking various agricultural activities has remained topical in recent years. This is because of the laudable contributions of women to the entire agricultural value chain. As a result, women farmers across various parts of the globe contribute immensely to improved household food security, poverty reduction resilience building (FAO, 2014; 2016).

Despite the prominence of the agricultural sector to the sustenance of the nation's economy and the livelihood of the

people, the sector is heavily characterized by a wide range of challenges that have limited the capacity of farmers to be productive (Asogwa *et al.*, 2014; FAO, 2019b). Among the leading challenges of the sector is the inability of most farmers to access the financial resources needed for enhanced productivity, considering the cost-intensive nature of farming activities (Ukwuaba *et al.*, 2020). As a consequence of farmers' low capital base, production has remained inefficient and has affected farm output. However, this challenge is compounded for women, as they also face social exclusion, apart from being mostly small-scale farmers (FAO, 2014, 2016). Women farmers have limited access to farm inputs, agricultural extension services, markets, and credit among others (Odoemenen and Obinne, 2010; FAO, 2019b). Accessing credit by farmers is central to enhancing productivity and income (Ibrahim and Aliero, 2012; Imoisi *et al.*, 2012). Having improved access to credit facilities by women farmers enables them to acquire farm inputs, technical support, and services. Also, accessing credit by women farmers can substantially smoothen household consumption and reduce vulnerability (FAO, 2019a). Similarly, women farmers can use such resources to diversify their livelihood sources by undertaking other off-farm activities.

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Farmers in various regions of the country have traditionally accessed credit facilities through formal, semi-formal, and informal sources (Olomola and Yaro, 2015). The formal sources include all formal financial institutions, especially commercial banks, micro-finance banks, and the Bank of Agriculture (BOA) to mention a few. Similarly, farmers can patronise cooperative societies and other Non-Governmental Organisations (NGOs) for credit, which constitute the semi-formal sources of credit. In the same vein, farmers can access credit through informal sources, particularly from family and friends, money lenders, women groups, etc. Studies over time have established that most Nigerian farmers lack access to formal agricultural finance. As a result, the Nigerian government has made some concerted efforts to improve farmers' access to financing (Nwosu *et al.*, 2010; Ibrahim and Aliero, 2012). In recent years, such effort led to the implementation of the Anchor Borrowers' Scheme and the NIRSAL microfinance bank by the Central bank of Nigeria (CBN). These are to supplement the activities of the already existing Bank of Agriculture (CBN, 2015; Olomola and Yaro, 2015; Friday *et al.*, 2016). Despite these commendable efforts to improve farmers' access to financing, a reasonable proportion of Nigerian farmers have remained financially disadvantaged (Ngozi and Charles, 2016). According to the *Enhancing Financial Innovation Access (EFInA) 2020 Survey*, 51% of Nigerian adults use formal financial services like banks, microfinance banks, mobile money, insurance, and pension accounts. According to the report, 36% of Nigerian adults (or 38 million people) are financially illiterate. Furthermore, some of Nigeria's most financially disadvantaged populations continue to face significant barriers to financial inclusion. Women are still more financially disadvantaged than males, with just 45% of females using banking facilities in comparison to 56% of males (EFInA, 2020). Due to this challenge, most farmers rely on informal sources of credit for them to undertake agricultural activities (Aliyu, 2012). This is because accessing formal credit which may be adequate for their farming needs has been stringent. The criteria are mostly beyond the socio-economic status of an average farmer (Ekwueme *et al.*, 2007; Nwaru and Onuoha, 2010).

This situation for women is even worse due to some socio-cultural factors (Olade and Olagunju 2013). These factors include membership of a political party, income level, religious belief, and educational attainment among others (Olateju, 2018). According to FAO (2016), efforts are being made to promote women farmers' access to resources has not been adequate. If women farmers are genuinely supported, they can substantially contribute to improving poverty reduction and household welfare (Oxfam International, 2017). Hence, this study examined credit sources and utilization in Adamawa State's Yola South Local Government Area to assist to the goal of boosting women farmers' access to financial credit. Specifically, the study described women farmers' socio-economic characteristics, identified agricultural credit sources available for women and examined how the funds were utilized by the women.

2.0 Methodology of the Study

The study area was Yola-South Local Government Area of Adamawa State, which is located in north-east Nigeria at latitude 9° 14' north of the Equator and longitude 12° 28' east of the Greenwich Meridian (National Bureau of Statistics, 2013). The area has tropical wet and dry seasons and is located in the country's Northern Guinea Savannah zone. The rainy season usually lasts for about five months, with roughly 700 mm of yearly rainfall on average (Adebayo *et al.*, 2012). The area has a landmass of 2,310.05 km² and a growing population of 262,200 people (National Population Commission, 2016). The area has a population density of 285.3/km² with an annual growth rate of 2.9% (City Population, 2022).

The study adopted a questionnaire survey research design; hence, primary data was collected using a semi-structured questionnaire. In selecting samples for the study, a multi-stage sampling technique was used. In the first stage, purposive sampling was used to select 6 out of 11 wards that constitute the Local Government Area due to the high concentration of women farmers. The wards selected were; Bako, Bole-Yoldepate, Ngurore, Mbamba, Makama 'B' and Adarawo. From each of the selected wards, two communities, having registered women farmers, were selected. At the last stage, 148 women crop farmers that have accessed credit facilities were randomly selected from the list of registered farmers obtained from the communities. The data collected were analysed using descriptive statistics involving the use of frequency counts, means and percentages.

3.0 Results and Discussion

3.1 Socio-Economic Characteristics of Women Farmers

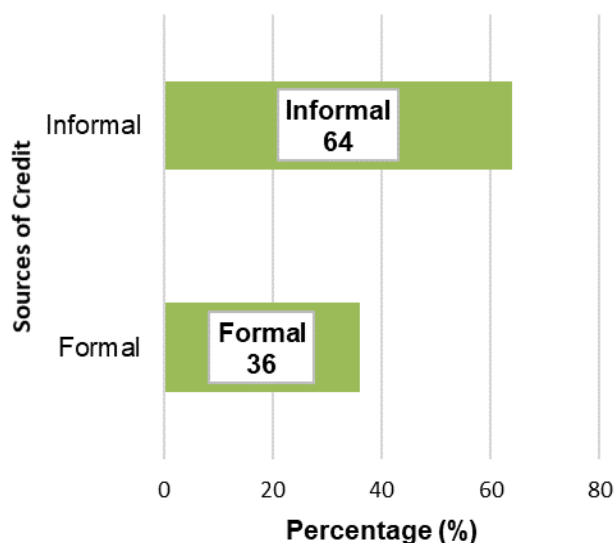
The participants' socio-economic characteristics are presented in Table 1. The findings of the study revealed that the average participants' age was 43 years, implying that the majority were within their economically active years. Hence, they can use credit for productive activities. For marital status, married persons constituted 59.1% of the participants. Similarly, the average household size of the women farmers in the study area was seven persons, indicating that married women have more access to financial credits when compared to their non-married counterparts. Regarding the respondents' educational attainment, most (72%) of the participants had acquired a certain level of formal education, suggesting that the majority of the participants were literate and can use credit facilities wisely. The participants' average farm size was 1.7 hectares, showing that they are mostly small-holder crop farmers. Normally, farmers are supposed to have some levels of access to agricultural extension services to improve their understanding of agricultural technologies and developments. The majority (80.6%) of this research's participants could not access such services, possibly impacting the participants' ability to carry out farming activities in the area efficiently.

Table 1. Socio-Economic Characteristics of the Participants

Variables	Frequency	Percentage	Mean
Age (Years)			43.1
≤30	19	12.9	
31 – 40	51	34.4	
41 – 50	38	25.8	
51 – 60	32	21.5	
≥60	8	5.4	
Marital Status			
Married	87	59.1	
Single	25	17.2	
Widow	27	18.3	
Divorced	8	5.4	
Household Size			7
1 – 5	38	25.8	
6 – 10	103	69.9	
≥10	6	4.3	
Educational Level			
No formal education	41	28	
Primary Education	21	14	
Secondary Education	51	34.4	
Tertiary Education	35	23.7	
Farm Size			1.2
<1	5	3.2	
1 – 2	87	58.6	
3 – 4	57	38.2	
Access to Extension Service			
Yes	29	19.4	
No	119	80.6	
Total	148	100	

3.2 Access to Agricultural Credit

The distribution of the participants' sources of credits is presented in Figure 1. The study revealed that the majority (64%) of participants rely on informal sources of credit for their

**Figure 1.** Distribution of Main Source of Credit

activities, while 36% patronise formal sources. This finding lends credence to the submission of Aliyu (2012) that most Nigerian farmers accessed informal financial sources. This is because most informal sources of credit are devoid of administrative delays, and there is no insistence on collateral security. This finding is also consistent with that of Jack and Roland (2016), that market women in Yenagoa, Bayelsa State have limited or no access to microcredit schemes, owing to a lack of awareness, discrimination against women, and stringent banking regulations on credit access. The finding of this study implies that most of the respondents can access only a limited volume of credit at a relatively higher cost since the sources are mostly informal. It should be noted that informal credits are usually convenient for small-holder farmers since their financial demands are usually minimal. However, for farmers to become self-reliant and have improved livelihood, they need to transform from small-scale status to commercial status.

The findings in Figure 2 outlines the various channels through which the participants obtained credit, revealing that family and friends (11.8%), micro-finance (10.8%), and associations/groups (9.1%) were the leading channels. Other channels include Anchor borrowers, local money lenders, and thrifts. The finding of this study lends credence to the submissions of Owolabi et al. (2011), Obisesan (2012),

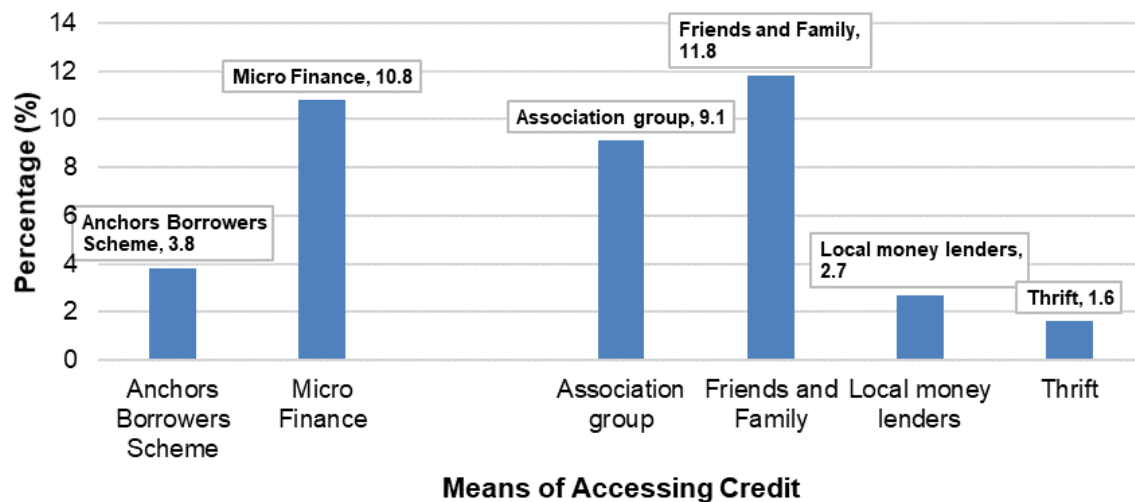


Figure 2. Means of Accessing Credit by the Participants

Table 2. Description of the Participants' Finances

Variable	Minimum (₦)	Maximum (₦)	Mean (₦)	Standard Deviation (₦)
Annual Income	0	350,000	103,553.76	82,834.49
Amount Applied	20,000	250,000	78,613.33	50,443.14
Amount Given	8,000	200,000	63,453.33	41,291.74

[Oruonye and Musa \(2012\)](#), and [Asogwa et al. \(2014\)](#) who reveal that most women farmers in Nigeria rely heavily on informal credit sources for their farming activities. Women's access to finance is often limited by the availability of collateral and asset-based financing (CBN, 2012). According to [Fletschner \(2009\)](#), financial institutions have discriminatory lending policies towards women, causing them to view women as inexperienced and hence, less desirable clients. In addition, some institutions lack the expertise to provide products that are targeted to women's choices and limits. To make matters even more complicated, in most communities, women are less likely than men to have land titled in their names, even if their families own it, and they are less likely than males to have power over land, even if they technically possess it (CBN, 2012). Similarly, socially acceptable conventions and expected family obligations have had a significant impact on the types of economic activity that women can do. The interplay of these factors will continue to influence women's access and utilisation of credit facilities.

In the same vein, [Table 2](#) presents the description of the participants' finances, which shows that ₦78,613.33 was the mean amount of credit sought by the farmers, while ₦63,453.33 was the mean amount given to the women farmers as credit. This implies that the majority of the women farmers sought micro-credits. Given that farming is a capital-intensive business, having limited financial resources may limit the ability to adopt new technology due to the associated transition costs.

3.3 Agricultural Credit Utilisation

The farmers' capacity to use loans for the desired purpose without defaulting has a significant impact on productivity. The distribution of responders based on how the borrowed credit was used is shown in [Table 3](#). The majority of participants used their credit for agricultural purposes, such as renting lands, purchasing fertilizer and agrochemicals, and paying hired labour on the farm. Similarly, parts of the credits were used to meet some family needs, particularly in the payment of hospital bills and children's school fees. This finding implies that agricultural credit is being used for both agricultural

Table 3. Distribution of Participants According to Utilization of Credit (N=148)

Purpose	Frequency*	Percentage
Agricultural Purpose		
Buying of Seed	45	30.5
Buying of agro-chemicals	88	59.6
Buying of fertilizer	144	97.4
Payment of hired labour	140	94.7
Relenting of farmland and inputs	66	44.4
Non-Agricultural purpose		
Hospital bills	81	54.5
School fees	81	54.5
Feeding	27	18.2

*Multiple Response

purposes and non-agricultural purposes by most of the participants. This study's findings are consistent with those of Adebayo and Adeola (2008), Ettah (2010), Adesiji *et al.* (2011), Isitor *et al.* (2014), Madugu and Bzugu (2012), and Mgbakor *et al.* (2013), who stated that the majority of women farmers in Nigeria use agricultural credit for farming purposes, with portions of it being used to meet important and urgent family needs.

4.0 Conclusions

Agriculture has enormous potential to drive inclusive economic growth, improve food security, and create job opportunities for millions of Nigerians. To bring about agricultural development, access to agricultural credit is important. This study provides useful information on the status of women farmers in accessing credit from both formal and informal sources, providing critical evidence for policymakers to take the necessary steps to facilitate the emergence of comprehensive and long-term lending institutions for the growth of Nigeria's agricultural industry. The majority of the participants' access to finance came from informal sources, suggesting that women farmers' access to formal agricultural credit is still limited. Similarly, the volume of credit the participants' accessed is usually low, hence, may not adequately support large-scale farming activities. This may affect women farmers' efficiency and productivity, which can in turn affect household wellbeing. Based on this study, it is recommended that the government should improve agricultural extension services that adequately enlighten women on how to access formal agricultural credits and adopt improved farming innovations and practices. Likewise, the formal financial institutions in the area should initiate policies that will support informal actors to provide individuals with sufficient finances to support commercial agriculture.

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References

Adebayo, A. A., Onu, J. I., Adebayo, E. F., and Anyanwu, S. O. (2012). Farmers Awareness, Vulnerability, and Adaptation to Climate Change in Adamawa State Nigeria. *British Journal of Social science*, 9 (2), 104 – 115.

Adebayo, O. O. and Adeola, R. G. (2008). Sources and Uses of Agricultural Credit by Small Scale Farmers in Surulere LGA of Oyo State. *Anthropologist*, 10(4), 313 – 314.

Adesiji, G. B., Matanmi, B. M., Falola, A. and Ahmed, T. A. (2011). Effects of Credit Utilization on Youth Farmers' Rice Output in Patigi Local Government Area of Kwara State,

Nigeria. *Journal of Agriculture and Social Research*, 11(2), 1 – 8.

Aliyu, A. A. (2012). An Investigation into the Relationship between Agricultural Production and Formal Credit Supply in Nigeria. *International Journal of Agriculture and Forestry*, 2(1), 46 – 52.

Asogwa, B. C., Abu, O. and Ochoche, G. E. (2014). Analysis of Peasant Farmers Accesses to Agricultural Credit in Benue State, Nigeria. *British Journal of Economics, Management, and Trade*, 4(10), 1525 – 1543.

Central Bank of Nigeria. (2012). Increasing Women's Access to Finance: Challenges and Opportunities. Being a paper presented at the Second African Women's Economic Summit held in Lagos, Nigeria July 13, 2012.

City Population (2022). Yola South Local Government Area in Nigeria. Retrieved from; <https://citypopulation.de/php/nigeria-admin.php?adm2id=NGA002021>.

Danuvas, S. (2016). The Role of Microfinance in Advancing Smallholder Agriculture. Full Paper Proceeding Bessh, 76(3), 62 – 76.

Ekwueme, C. M., Adinka, O. M. and Umehali, E. E. (2007). Financing Agriculture in Enugu State. A Case study of Union and First Bank. *Journal of Agricultural and social Science*, 6(4), 91 – 95.

Enhancing Financial Innovation Access (2020). Financial Services Agent Survey. Retrieved from; <https://www.gov.uk/government/news/nigeria-new-data-from-efina-shows-financial-inclusion-growth>

Ettah, O. I. (2010). Effect of Credit Acquisition and Repayment on Agricultural Production in Cross River State, Nigeria. M.Sc Thesis, University of Nigeria Nsukka. 1 – 80.

FAO. (2010). Gender and land Rights Database. Retrieved from <http://www.fao.org/gender/landright>

FAO. (2014). The State of Food and Agriculture: Innovation in Family Farming. <http://www.fao.org/publications/sofa/2014/en/>

FAO. (2016). The State of Food and Agriculture 2016: Climate Change, Agriculture, and Food Security. <http://www.fao.org/publications/sofa/2016/en/>

FAO. (2019a). Climate-Smart Agriculture in Adamawa State of Nigeria. Climate-Smart Agriculture Country Profile, p1-21.

FAO. (2019b). Women's access to rural finance: challenges and opportunities. Rome, Licence: CC BY-NC-SA 3.0 IGO.

Fletschner, D. (2009). Rural women's access to financial services: credit, savings and insurance, Lisa Kenney Evan School of Public Affairs University of Washington. https://doi.org/10.1007/978-94-017-8616-4_8

Friday, O. A., Chris, O., Ikechukwu, K., and Fredrick, I. (2016). Credit Supply and Agricultural Production in Nigeria; A Vector Autoregressive (VAR) Approach. *Journal of Economics and Sustainable Development*, 7(2), 131 – 143.

Ibrahim, S. S. and Aliero, H. M. (2012). An analysis of farmers' access to formal credit in the rural areas of Nigeria.

- African Journal of Agricultural Research, 7(47), 6249-6253. <https://doi.org/10.5897/AJAR11.788>
- Imoisi, A. I., Sogules, I. W. and Ekpeyong, B. I. (2012). An Approach of Credit Facilities on Agricultural Output and Productivity in Nigeria; 1970 – 2010. *British Journal of Humanities and Social Sciences*, 7(2), 24 – 33.
- Isitor, S. U., Babalola, D. A. and Obaniyi, K. S. (2014). An Analysis of Credit Utilization and Farm Income of Arable Crop Farmers in Kwara State, Nigeria. *Global Journal of Science Frontier Research*, 14(10), 27 – 34.
- Jack, J. T. C. B. & Roland, V. T. (2016). Access to Micro Credit and Economic Empowerment: Perceptions amongst Market Women in Yenagoa, Bayelsa State, Nigeria. *International Journal of Development and Management Review (INJODEMAR)*, 11, 150-161.
- King, E. M., and Mason, A. D. (2001). *Engendering Development: Through Gender Equality in Right Resources and Voice*, Washington, D. C., and New York: The World Bank and Oxford University Press. A World Bank Policy Research Report. <https://doi.org/10.1596/0-1952-1596-6>
- Madugu, A. J. and Bzugu, P. M. (2012). The Role of Micro Finance Banks in Financing Agriculture in Yola North Local Government Area of Adamawa State, Nigeria. *Global Journal of Science Frontier Research Agriculture and Veterinary Sciences*, 12(8), 30 – 35.
- Mgbakor, M. N., Ugwu, J. N. and Iloegbunam, C. S. (2013). The Role of Microfinance in Agricultural Production in Anambra West LGA of Anambra State, Nigeria. *International Journal of Sustainable Agriculture*, 5(2), 50 – 55.
- National Bureau of Statistics (2013). *National Living Standard Survey*, Abuja, Nigeria.
- National Population Commission (2016). *National Population Commission Projected Population 2016*. The Federal Republic of Nigeria.
- Ngozi, T. M. and Charles, P. N. (2016). A Political Economy Analysis on Small Scale Farmers and Food Security in Nigeria. *European Journal of Business and Social Sciences*, 5(4), 35 – 49.
- Nwaru, J. C. and Onuoha, R. E. (2010). Credit Use and Technical Change in Smallholder Food Crop Production in Imo State, Nigeria. *New York Science Journal*, 3(11), 144 – 152.
- Nwaru, J. C., Omonona, B. T., Ajani, O. I. and Oni, A. O. (2011). Determinants of Informal Credit Demand and Supply among food crop Farmers in Akwa Ibom State, Nigeria. *Journal of Rural and Community Development*, 6(1), 129 – 139.
- Nwosu, F. O., Oguoma, N. O., Ben-Chendo, N. G. and Henri-Ukoha, A. (2010). The Agricultural Credit Guarantee Scheme; Its Roles, Problems, and Prospects in Nigeria's Quest for Agricultural Development. *Researcher*, 2(2), 87 – 90.
- Obisesan, A. A. (2012). Credit Accessibility and Poverty among Smallholder Cassava Farming Households in Southwest, Nigeria. *Greener Journal of Agricultural Sciences*, 3(2), 120 – 127.
- Odoemenen, I. U. and Obinne, C. P.O. (2010). Assessing the Factors Influencing the Utilization of Improved cereal Crop Production Technologies by Small Scale Farmers in Nigeria. *Indian Journal of Science and Technology*, 3(1), 180 – 183. <https://doi.org/10.17485/ijst/2010/v3i2.23>
- Olalade, R. A. and Olagunju, F. I. (2013). Determinant of Access to Credit among Rural Farmers in Oyo State, Nigeria. *Global Journal of Science Frontier Research Agriculture and Veterinary Science*, 13(2), 16 – 22.
- Olateju, A. O. (2018). Factors that Influence Men and Women Participation in Microcredit Programme in Lagos State, Nigeria: A Case Study of Cowries Microfinance Bank (CMD). *European Scientific Journal*, 14(13), 75-88. <https://doi.org/10.19044/esj.2018.v14n13p75>
- Olomola, A. S. and Yaro, M. (2015). Commercial Banks' Response to Government's Financial Stimulus for Improved Agricultural Financing in Nigeria.
- Omonona, B. T., Akinterinwa, A. T., and Awoyinka, Y. A. (2008). Credit Constraint and Output Output Supply of Cowan Farmers in Oyo State, Nigeria. *European Journal of Social Science*, 6(3), 382 – 390.
- Owolabi, J. O., Abubakar, B. Z. and Amodu, M. Y. (2011). Assessment of Farmers (Women) Access to Agricultural Extension, Inputs and Credit Facility of Sabon – Gari Local Government Area of Kaduna State, Nigeria. *Nigeria Journal of Basic and Applied Sciences*, 19(1), 87 – 92. <https://doi.org/10.4314/njbas.v19i1.69350>
- Oruonye, E. D., & Musa, Y. N. (2012). Challenges of small-scale farmers access to micro credit (Bada Kaka) in Gassol LGA, Taraba State, Nigeria. *Journal of Agricultural Economics and Development*, 1(3), 62-68.
- Oxfam International (2017). *Financing Women Farmers; The need to increase and redirect agriculture and climate adaptation resources*. OXFAM Briefing Paper, p1-30. <https://doi.org/10.21201/2017.0889>
- Rahji, M. A. Y. and Fakayode, S. A. (2009). A Multinomial Logit Analysis of Agricultural Credit Rationing by Commercial Banks in Nigeria. *International Research Journal of Finance and Economics*, 24, 90 – 100.
- Ukwuaba, I. C., Owutuamor, Z. B. and Ogbu, C. C. (2020). Assessment of Agricultural Credit Sources and Accessibility in Nigeria. *Review of Agricultural and Applied Economics (Acta Oeconomica et Informatica)*, 23 (2), 3-11. <https://doi.org/10.15414/raae.2020.23.02.03-11>.
- World Bank, FAO, and IFAD (2009). *Gender in Agriculture Sourcebook*. Washington DC.

