

## MOBILE FINANCIAL SERVICES AND RURAL HOUSEHOLD LIVELIHOOD: EVIDENCE FROM KWARA STATE, NIGERIA

\*Akinsola G.O<sup>a</sup>, Ojetunde S.B<sup>b</sup>, Bello M.A<sup>a</sup>, Ayinde O.E<sup>a</sup> & Durotoye O.E<sup>a</sup>

<sup>a</sup>Department of Agricultural Economics and Farm Management,  
University of Ilorin, Ilorin, Nigeria

<sup>b</sup>Department of Agricultural and Resource Economics,  
Colorado State University, Colorado State, USA

\*Corresponding author: akinsola.go@unilorin.edu.ng

### Abstract

*Creating an inclusive financial system with wide-ranging and convenient services in the rural areas is increasingly being promoted as this is seen to be vital for sustainable economic development. In this vein, this paper examined the effects of electronic financial services on the livelihoods of the rural household in Nigeria, using Kwara state as a case study. First, the study explored and identified the mobile financial systems used by rural households, determined their livelihood status and examined the effect of the financial services on the livelihood of the rural household. A three-stage sampling technique was used to select 120 farming households using a structured questionnaire. The analytical tools employed were descriptive statistics, sustainable livelihood index, average weighted index and the logistic regression. The result revealed that financial inclusion status of the household, education status and monthly income significantly influenced the livelihood of the rural household ( $P < 0.1$ ). Difficulties in using the mobile phone effectively without the assistance of a third party and the vast charge on the use of mobile financial services were vital factors limiting financial inclusion of the rural households. Hence, the study recommends the need for more sensitisation and training on the use of major financial services to ensure integration of all willing users of financial services*

**Keywords: Sustainable Livelihood Index, financial services, rural households, integration, Nigeria**

### Introduction

Globally, about 2.7 billion adults are excluded from formal financial services, thus necessitating the need for their financial inclusion (Dashiet *al.*, 2013; Aina and Oluyombo, 2014). Serrao et al. (2013) opined that this pattern also exists in Africa which seems to be the bane of the developing economies, particularly those that are highly population. Owing to this, the Central Bank of Nigeria stepped-up the campaign for banks, to invest heavily in their low-cost branchless channels like the Automated Teller Machines (ATMs) and Point-of-Sale (POS) terminal. Kama and Adigun (2013) noted that the number of ATMs as at the end of 2011 stood at 9,640, giving an average of 11 ATMs per 100,000

adults. Aside the ATMs, POS and other e-channel services are spreading to the rural areas. These services can help the rural households grow their business and improve their incomes through commercialization and access to better technologies. Increased resilience through smart climate production, risk diversification, access to financial tools, smooth transition of non-commercial farmers and businessmen and women out of agriculture, marketing and the consolidation of farms, assets and production are other benefits (Purohit and Arora, 2021).

The Central Bank of Nigeria (CBN) and its allies introduced reforms including the Micro Small and Medium Enterprises

2

Development Fund (MSMEDF), linkage banking and agent banking, credit enhancement programmes consumer protection and financial literacy. These reforms were meant to reduce financial exclusion rates to 20 percent by the year 2020 (EFInA, 2012; Umaru and Imo, 2018).

Governments and some stakeholders acknowledge the fact that rural households especially farmers are the “life” of the nation yet they were neglected. Many farmers are impoverished, not because they lack money but they are excluded from financial services. Donovan (2012) stated that poverty is not just a lack of cash but also inadequate access to the instruments and means through which the deprived could improve their lives. The *financial inclusion* concept in the developing economies is receiving growing interest among scholars and policy experts. This is due primarily to its possible impact on pro-poor growth and livelihood of rural dwellers, which constitute a significant percentage of the global populace (CBN, 2018). Recent studies have emphasised the importance of developing inclusive financial systems that allocate scarce resources in the rural areas. This would serve as a means of promoting sustainable socio-economic development as it would facilitate rural entrepreneurial, businesses, agricultural intensification and mechanisation (Brandt et al. 2001; Helms 2006; Zhou and Takeuchi 2010; Zhang, 2012; CBN, 2018).

Financial inclusion deals with accessing useful and affordable financial products and services need of everyone who could use it Payments, savings, credit and insurance needs are delivered responsibly and sustainably (World bank, 2019; Banking Association of South Africa, 2019). CBN (2013), also financial inclusion describes scenarios where financial services are delivered by a range of providers to reach everyone who could use them. This connotes that the concept of

financial inclusion goes beyond the availability of funds as it also includes making financial services easily accessible to everyone. The banking industry was transformed through many technological advances from the traditional brick-and-mortar infrastructure branches to a system supplemented by other channels like automated teller machines, debit and credit cards, internet banking and the, online money transfer apps among others. The fundamental principles for financial inclusion are accessibility, affordability, appropriateness, usage, quality, financial education, innovation, diversification and simplicity (Banking Association of South Africa, 2019). The World Bank (2019) asserts that financial inclusion is a crucial enabler to reducing poverty and boosting prosperity. Financial inclusion can help individuals to make daily payments. It also enhances accessibility to credit that can be invested in small-scale income-generating activities and to enable people save their cash to make future investments or respond to unforeseeable risks (Writers Club, 2018).

Although, some studies (Mubiru, 2012; Mondal, 2015; Lal, 2018; Umaru and Imo, 2018) have considered the effect of household financial inclusion on poverty alleviation, few have focused on its influence on livelihoods. (FAO, 2008; Zhang and Loubere, 2013).

Given the preceding discussions, this study examined the effects of electronic financial services on the livelihoods of the rural household in Nigeria, using Kwara state as a case study. Specifically, the research assessed the rural households patronage of financial services specific e-financial services channels used, determined the influence of rural households' financial services usage status on their livelihood and the constraints to financial services usage among rural dwellers in Kwara State.

## 3

**Methodology**

The study area for this research project is Kwara State. Kwara State was created in 1967, and it is located in the North Central Zone of Nigeria. The state is about 36,825km which is equivalent to 14,218 square metres. Banjoko (2016) gathered that Kwara state is located in the Middle northwestern part of the country within latitudes  $7^{\circ} 45'N$  and  $9^{\circ} 30'N$  and longitudes  $2^{\circ} 30'E$ - and  $6^{\circ} 25'E$ . (Omotesho et al (2012)The population of the state is around 2,371,089 and the state covers an estimated land area of 32,500km<sup>2</sup>, out of which about 75.3 per cent is cultivable and found suitable for almost all forms of food crops (Omotesho et al, 2012). The cultivation of tubers, grains and cash crops are common in the Kwara North and South Senatorial districts while animal husbandry is common in the Kwara Central perhaps because of the presence of savannah plants in the region. According to Adeyemi (2018), Kwara state has an annual rainfall of 1,500mm which is higher than that for most states in North-central Nigerian region. The State also shares boundary with States like Oyo, Niger, Osun, Ekiti, Kogi State and Benin Republic to the West. The state has 16 Local Government Areas (LGAs).

**Data and Sampling Procedure**

Primary data was used for this study. An interview schedule was the main instrument used to collect the needed data. A three-stage sampling technique was used for the study. The first stage involved the random selection of two LGAs in the state. At the second stage, six (6) major rural communities were selected in each of the LGAs using a stratified sampling technique. The third stage was the random selection of 10 rural households in each of the selected communities. A total of one-hundred and twenty (120) rural households were therefore selected for this study.

**Data analysis**

Analysis of data gathered was done using the descriptive statistics, Sustainable Livelihood Index, logit regression and the likert scale. Specifically, descriptive statistics method was used to assess the rural households patronage of financial services and specify their electronic financial services usewhile SLI index, logit regression and likert methods was used to determine the influence of rural households' financial services use status on their livelihood and the constraints to financial services usage

**Sustainable Livelihood Index**

The Sustainable Livelihoods Index (SLI) as used by Kamaruddin and Samsudin (2014) is a useful tool in assessing the livelihood elements of rural poor households. Income data alone may not fully reflect this. Therefore, financial, physical, human, social and natural assets were considered. The indicators were then standardised following the procedure adopted in measuring Life Expectancy in the Human Development Reports (Hahn *et al.*, 2009). For each indicator-*k*, the standardisation index for the *ith* household was calculated using the formula

$$\text{Index}_{ki} = \frac{S_{ki} - S_{kmin}}{S_{kmax} - S_{kmin}} \dots \dots \dots (1)$$

Where  $S_{ki}$  is the observed value of indicator *k* for the *ith* household.  $S_{kmax}$  and  $S_{kmin}$  are the minimum and maximum values of *k* for the population being considered. An aggregated SLI for each household were then constructed by averaging of all the groups of livelihood assets and outcomes indices with an equal weight of each. The households will either be grouped into high (if the SLI value is > 0.5) or low livelihood status (if the SLI is ≤0.5).

4

**Logit Regression Model**

Logistic regression also called a logit model, is used to model dichotomous outcome variables. Logit model was used to analyze the effects of engaging e-financial services variables on the livelihood status of the respondents. The functional form of the logit model is specified as follows:

$$K_i = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + \mu_t \dots\dots\dots(2)$$

Where

$K_i$  = dichotomous variable (0 if low livelihood status and 1 if there is high livelihood status).

$\beta_0$  = intercept

$\beta_i$  = slope (coefficient) of the independent variables

$X_i$  = sets of explanatory variables

$e_i$  = error term.

The explanatory variables are specified as follows:

$X_1$  = Age (years)

$X_2$  = Gender (0=male, 1=female)

$X_3$  = Marital status of the respondents (1=Married, 0 = Others)

$X_4$  = Educational status (years)

$X_5$  = Household size (Numbers)

$X_6$  = Financial inclusion (number of e-channels used)

$X_7$  = amount transacted Monthly Income (Naira)

**Results and Discussion**

This section presents the result and the discussion of the major findings of the study.

**Demographic Characteristics of Respondents**

Table 1 presents the result of the socio-economic characteristics of the respondents. The result revealed that about 55.2% of the respondents were male and 44.8% of them were female. In terms of Age bracket, most (52.6%) of the respondents are between 30-40years, and about 20.7% are between 40-50 years

while only 3(2.6%) of them are above 50 years. Therefore, more than 76% of the respondents are less than 40years of age. This implies that large numbers of those sampled are still in their active age. Also, given that all the respondents practice farming as either primary or secondary occupation, 21.6% of them have less than 5years of farming experience, and about 40.5% of them have between 11 to15 years of farming, while about 21.6% have above 15years of farming experience. Further, the result in Table 1 revealed that about 51.7% of the respondents have at least a secondary school education while only 15.55% of the respondents have no formal education. However, all the socio-economic variables could influence the usage of some of the final services that have been developed to enhance financial inclusion in Nigeria

**Table 1: Distribution of Respondents by Socio-economics Characteristics**

Socio-economics characteristics		Frequency	Percentage
Gender	Male	64	55.2
	Female	52	44.8
Age Bracket (years)	Less than 30	28	24.1
	30-40	61	52.6
	41-50	24	20.7
	Above 50	3	2.6
Years of Farming (years)	Less than 5	25	21.6
	6-10	19	16.4
	11-15	47	40.5
	Above 15	25	21.6
Literacy Status	Tertiary	11	9.5
	Secondary	49	42.2
	Primary	38	32.8
	No Formal Education	18	15.5
<b>TOTAL</b>		<b>116</b>	<b>100%</b>

Source: Field survey data, 2019

**Financial Inclusion Status of Rural Households in Kwara State**

The financial status of the rural households sampled was determine based on the frequency of households transactions, number of Automated Teller Machines, use of Point of Sales terminal and Mobile Money agents for transactions. Table 2 presents the rate of financial transactions by the respondents

5

that revealed that 63.8% of them make financial transactions “Occasionally” while very few (5.2%) make financial transactions daily. This implies majority of the respondents seldom make financial transactions. Table 3 shows the respondents’ access to ATMs in their area. Majority (98.3%) of the respondents indicated that there is none close to their area. The low financial transactions could be as a result of their income levels

**Table 2: Financial Transactions by Respondents**

Financial Transactions	Frequency	Percentage
Daily	6	5.2
Weekly	10	8.6
Monthly	17	14.7
Twice a month	9	7.8
Occasionally	74	63.8
<b>Total</b>	<b>116</b>	<b>100.0</b>

Source: Field survey data, 2019

**Table 3: Accessibility of ATM to the respondents**

No. of ATM	Frequency	Percentage
ATM machine	114	98.3
1	1	.9
2	1	.9
<b>Total</b>	<b>116</b>	<b>100.0</b>

Source: Field survey data, 2019

For the usage of POS among rural households, Table 4 shows a Crosstab of respondents’ financial transactions concerning POS usage. 84.5% of the rural dwellers indicated that they made use of POS before. In terms of the frequency of usage, only 6 people used it daily, 10 used it weekly; 17, monthly; 6, twice a month and 59 of them used it occasionally.

Aside POS terminals and ATMs respondents were also categorized based on how they make use of Mobile Money apps. Table 5 revealed that only 17.2% of the respondents made use of Mobile Money apps to make financial transactions implying that the rate of making financial transactions by the people was low despite the fact that they were mostly young adults. Majority of those that made financial transactions only did it

occasionally.

Macnally–Boateng (2016) stated that access to financial services” is one of the ways to know if an individual is financially included. Respondents poor access to financial services in their area excluded them from using the financial services. This negates the recommendations of CBN (2017) that ‘financial institutions should ensure that everyone, wherever they live, no matter how far away they are can be reached with financial products.

**Table 4: Crosstabs of Mobile Financial Transactions usage**

How often do you make financial Transactions		Have you ever make use of POS before		Total
		No	Yes	
Daily		0	6	6
Weekly		0	10	10
Monthly		0	17	17
Twice a month	<sup>a</sup>	3	6	9
Occasionally		15	59	74
<b>Total</b>		<b>18</b>	<b>98</b>	<b>116</b>

For clarity, Table 5 presents the summary of the type of e-channels used by the rural household in the study area. About 75.0% claimed to have used ATM before while 25% indicated otherwise. 84.5% of them claimed to have used POS while 15.5% have not used POS before. Those that have made use of Mobile Money apps before were 17.2% and most (82.8%) of them have never made use of Mobile Money. Also, only a few (4.3%) have made use of internet banking while the majority (95.7%) indicated otherwise. Based on this, ATM usage has a mean value of 0.75 and Standard Deviation of 0.435; POS usage has a Mean and Standard Deviation values of 0.84 and 0.364 respectively; Mobile Money sage has mean value of 0.17 and standard deviation of 0.379 while Internet banking has 0.04 and 0.204 for mean value and standard deviation respectively. This implies that the two commonest E-channels that the respondents have used before is POS and



6

ATM and these two e-channels have the highest mean values.

**Table 6: E-channels used by Rural Households**

Types of Channels	Yes		No		Mean	Std. Dev
	Frequency	Percent (%)	Frequency	Percent (%)		
1. ATM	87	75.0	29	25.0	0.75	0.435
2. POS	98	84.5	18	15.5	0.84	0.364
3. Mobile Money app	20	17.2	96	82.8	0.17	0.379
4. Internet Banking	5	4.3	111	95.7	0.04	0.204

Source: Field survey data, 2019

The use of mobile money to make financial transactions by the people was below expectations even though Nigeria has several mobile money services through its agents Iliasov (2014). Since the people in these rural areas are relatively educated, it is surprising that these people do not make use of internet banking services for their financial transactions through their mobile phones. This is a testament to the fact that these people were financially excluded. Aina and Oluyombo (2014) confirmed that financial inclusion is not complete in developing nations without the use of mobile phone as a mini bank account for receiving money and payment for goods and services.

**Livelihood Status of the Respondents**

Table 6 presents the livelihood status of the The result revealed that about 79.3% of the respondents had low livelihood status, while few (20.7%) of the respondents had high livelihood status. The result was arrived at using the sustainable livelihood index.

**Table 6: Respondents Sustainable livelihood index**

Livelihood status	Frequency	Percentage
High	24	20.7
Low	92	79.3
Total	116	100

**Financial services usage and the livelihood of rural households**

Table 7 presents the result of the logistic regression model showing the effect of financial inclusion on rural livelihood. The model is statistically significant having a log-likelihood of 86.530 and chi-square  $\chi^2$  of 47.689 ( $p < 0.01$ ). The result further revealed that educational level, financial inclusion and household incomes were the independent variables that were statistically significant at 1% and thus, there is a probability that the significant independent variables will influence the livelihood of the rural households.

The literacy status of the rural household head had significant positive impact on the respondents’ livelihood status. Therefore, as the years of education of the household head increases, it increases the probability of having a high livelihood status. Usage of financial services had significant positive relationship with livelihood status. This shows that as the number of e- channels used by the respondents increased, it increased the probability of household attaining high livelihood status. Efficient transaction derived via the use of e channels for financial transactions exposes the rural households to business opportunities, thereby increasing their incomes and assets. The monthly income of rural households is also positive and significant at 1%. This shows that as the income of the household increases, it increases the probability of increasing household livelihood status. This is related to the assertion of Khan (2011) that financial system improves the financial status and standard of living of the poor and vulnerable, as it enables them to increase their engagement in economic activities, wealth and facilitate the employment of household members.

7

**Table 7: Influence of financial Services Variables on rural livelihood**

Variables	Coefficient	Standard Error	Sig
Constant	-5.124	2.122	0.006
Age	0.147	0.122	0.163
Gender	2.378	1.672	0.155
Marital status	0.002	0.030	0.956
Educational level	0.324***	0.088	0.007
Financial inclusion	0.314***	0.114	0.001
Household Size	-0.174	0.436	0.689
Monthly Income	0.000***	0.000	0.012
Chi square	47.689***		
-2log likelihood	86.530		

Source: Field Survey, 2018  
 \*\*\* Significant at 1%

**Constraints to Financial Services usage**

Table 8 shows the constraints militating against the financial inclusion by the rural households. The weighted mean score was used to identify the significant reasons

why rural households limit their use of financial services in the study area. It was observed that non-availability of ATM, difficulties in the use of mobile phones for financial transaction purposes and the necessity to use third party person to assist in financial services usage were the major factors militating against financial inclusion of rural households. Their weighted mean scores 3.72, 3.09 and 2.67, respectively. Other constraints given by the respondents were inconsistencies in the service of mobile money agents, failure to recognised the use of mobile money, attitude of some bank agents and ignorance about mobile money with weighted mean score of 2.40, 2.41, 2.23 respectively.

**Table 8: Constraints of Financial Inclusion among Rural Dwellers**

STATEMENTS	SA	A	D	SD	Mean
1. I find it difficult to use my mobile phone effectively without the assistance of a third party	66 (56.9%)	15 (12.9%)	15 (12.9%)	20 (17.2%)	<b>3.09</b>
2. I have a faulty mobile phone which is a great challenge to using mobile money functions	2 (1.7%)	9 (7.8%)	77 (66.4%)	28 (24.1%)	<b>1.87</b>
3. I do not know what Mobile Money is all about.	17 (14.7%)	13 (11.2%)	66 (56.9%)	20 (17.2%)	<b>2.23</b>
4. I do not need Mobile money for any transaction	4 (3.4%)	40 (34.5%)	71 (61.2%)	1 (0.9%)	<b>2.41</b>
5. I am not aware that Bank services can be enjoyed anywhere, anytime	3 (2.6%)	2 (1.7%)	31 (26.7%)	80 (69.0%)	<b>1.38</b>
6. Attitude of some bank agents are not encouraging	4 (3.4%)	38 (32.8%)	56 (48.3%)	18 (15.5%)	<b>2.24</b>
7. There is no ATM close to my area which makes it difficult for me to easily make transaction	91 (78.4%)	20 (17.2%)	3 (2.6%)	2 (1.7%)	<b>3.72</b>
8. The services of some Mobile Money agent is not consistent	16 (13.8%)	18 (15.5%)	78 (67.2%)	4 (3.4%)	<b>2.40</b>
9. Charges on the use of mobile money for transaction discourages me in using the services frequently	14 (12.1%)	66 (56.9%)	20 (17.2%)	16 (13.8%)	<b>2.67</b>
10. I am not educated so I find it challenging to apply most of e-channels for my farming vocation	2 (1.7%)	10 (8.6%)	82 (70.7%)	22 (19.0%)	<b>1.93</b>

SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

**Conclusion and Recommendations**

This research examined the effect of financial services usage on the livelihoods of rural household in Kwara state Nigeria. The result revealed that most of the respondents had used ATM and POS, few had used mobile money apps and internet banking facilities. About three-quarters of the respondents had low livelihood status

based on their Livelihood indices. The result further revealed that educational level, financial services usage and household income were positive and statistically significant variables determining livelihoods in the rural setting. The study concludes that majority of the rural households were excluded from the financial system, considering the

8

rate at which they access and make use of the available financial services in their vicinity. Study therefore recommends that banks should be encouraged to provide more ATM and POS in the rural areas. On the other hand, the rural dwellers should be sensitized on the advantages of accessing financial services. Government on its part needs to strengthen the financial services delivery systems, through smart policies in favour of the rural dwellers.

### References

- Adeyemi, M. (2018). How Kwara can generate over N1trn from rice production. The Nation Pilot. Available online at <https://thenationalpilot.ng/how-kwara-can-generate-over-n1trn-from-rice-production/>
- Aina, S. & Oluyombo, O. (2014). The Economy of Financial Inclusion in Nigeria: Theory, Practice and Policy
- Banjoko, I. K., Opeyemi, G. Ifabiyi, J. O., Arotiba, K., & Adedeji, S. O. (2016). Assessment of the Profitability of Paddy Production In Edu Local Government Area of Kwara State, Nigeria. Gashua. *Journal of Irrigation and Desertification Studies* 2 (1): 39-49.
- Banking Association of South Africa (2019). Working definition of financial inclusion. Available online at <https://www.banking.org.za/what-we-do/overview/working-definition-of-financial-inclusion>
- B, Loren, A Park & S Wang (2001). Are China.the Financial Reforms Leaving the Poor Behind? In: *Financial Sector Reform in China*: JFK School of Government, Harvard University.
- CARE India and FAO (2007). Moving from microcredit to livelihood finance. A report prepared by CARE India in collaboration with FAO Livelihood support programme.
- Central Bank of Nigeria (CBN) (2012). Pushing Financial Inclusion to the Front Burner. [www.thisdaybusinessnews.com](http://www.thisdaybusinessnews.com) Centre for Financial Inclusion. Financial Inclusion: How best can it be strengthened? Business World Intelligence. Available online at [www.businessworld.com](http://www.businessworld.com)
- Central Bank of Nigeria (CBN) (2013). Federal Government to Float ₦220bn Fund for Financial Inclusion in Nigeria. Central Bank of Nigeria Publication, 34-39
- Central Bank of Nigeria (CBN) (2017). Measuring Nigerian's Financial Inclusion Strategy. Available online at [www.cenbank.com](http://www.cenbank.com)
- CBN (2018). Financial Inclusion Newsletter A Quarterly Publication of the Financial Secretariat 2nd Quarter. Central Bank of Nigeria. 2018; 3:2.
- Dashi, E, E Lahaya & R. Rizvanolh (2013) Trend in international funding for financial inclusion. Consultative Group to Assist The Poor Brief December
- Donovan, K. (2012). Mobile Money for Financial Inclusion. Information and Communications for Development 2012
- EFInA (2012). EFInA Access to Financial Services in Nigeria Survey Key Findings. 2012, 1-71. Available online at <https://doi.org/10.1016/j.appet.2009.05.008>
- FAO. 2008. FAO methodology for the measurement of food deprivation. Updating the minimum dietary energy requirements. Rome.
- Hahn M.B., Riederer, A.M. & Foster S.O. (2009) The livelihood vulnerability index: A pragmatic approach to assessing risks from climate variability and change—a case study in Mozambique *Global Environmental Change*, 19 (1) (2009), pp. 74-88/
- Helms, B (2006). *Access for All: Building Inclusive Financial Systems*. Washington D. C.: World Bank Publications.



9

- Kama U & Adigun M. (2013) Financial Inclusion in Nigeria: Issues and Challenges. Abuja Nigeria.
- Kamaruddin, R & Samsudin, S. (2014). The Sustainable Livelihoods Index: A Tool to Assess The Ability And Preparedness Of The Rural Poor In Receiving Entrepreneurial Project. *Journal of Social Economics Research*. 1. 108-117.
- Khan H (2011). Financial Institution and Financial Stability: Are they two sides of the same coin? BANCON 2011, Indian Bankers Association and Indian Overseas Bank, Chennai.
- Lal T. (2018). Impact of financial inclusion on poverty alleviation through cooperative banks. *International Journal of Social Economics*. 2018; 45(5):808-828.
- Macnally-Boateng, A. M. (2016). Financial inclusion in Ghana : How has the use of Akafocheques introduced cocoa farmers to banks?. *Governance, Policy and Political Economy (GPPE)*. Retrieved from <http://hdl.handle.net/2105/37284>
- Mondal S. (2015). Financial Inclusion: a step towards eradicate poverty. *American Journal of*, 2015.
- Mubiru J. (2012). Financial Inclusion as tool for Combating Poverty: Joseph Mubiru Memorial Lecture. In Bangladesh Bank, 2012
- Omotesho, O.A, Adewale, H. A., Muhammad-Lawal, A. & Bello S. A. (2012): Efficiency Differentials of Foreign And Local Farmers in Kwara State, Nigeria, *Journal of Sustainable Development in Africa* 14 (5): ISSN: 1520-5509, Clarion University of Pennsylvania, Clarion, Pennsylvania.
- Purohit S. and Arora R. (2021): The benefits and challenges of mobile banking at the Bottom of the pyramid. *Journal of Contemporary Issues in Business and Government* 27(1)
- Serrao, M. V., K. V. M. (2013) Conceptual Framework to Investigate the Accessibility and Impact of Financial Inclusion. *Indian Journal of Research*. 2 (9): 47-49.
- Serrao, M. V., Sequeira, A. H., and Varambally, K. V. M. (2013) Conceptual Framework to Investigate the Accessibility and Impact of Financial Inclusion. *Indian Journal of Research* 2 (9): 47-49.
- United Nations (2006). *Building Inclusive Financial Sectors for Development*. Washington D. C.: United Nations Publications.
- Umaru H. and Imo C. C. (2018). The effects of financial inclusion on poverty reduction: The moderating effects of microfinance. *International Journal of Multidisciplinary Research and Development* 5 (12): 188-198. Available online at [www.allsubjectjournal.com](http://www.allsubjectjournal.com)
- World Bank (2019). *Understanding poverty*. Available online at <https://www.worldbank.org/en/topic/financialinclusion>
- Writers Club (2018). Financial Inclusion and why it is Important. *The Startup*. Available online at <https://medium.com/swlh/financial-inclusion-and-why-it-is-important-e80e1abbdfec>
- Zhang, Heather Xiaoquan (2012). Protecting mobile livelihoods: Actors.responses to the emerging health challenges in Beijing and Tianjin. In: *Modern China*, 38(4): 446.478.
- Zhang, H X & Loubere, N (2013). Rural Finance, Development and Livelihoods in China. Working Paper. Universität Duisburg-Essen No. 94/2013 ISSN 1865-8571
- Zhou, L., & Takeuchi, H. (2010). Informal Lenders and Rural Finance in China: A Report from the Field. *Economics*. DOI: 10.1177/009770040936077455

