

Mobile Money and Financial Inclusion of Rural Women in the Informal Sector: A Case of Users of Orange Money in Yagoua

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ABSTRACT

The purpose of this article is to assess the influence of Mobile Money on the financial inclusion of rural women in the informal sector. Women's access to financial services is a key factor in economic growth and development. This work aims to measure the impact of mobile finance, mobile wallet and mobile payment on the financial inclusion of women. To this end, a questionnaire was administered to a sample of 98 rural women working in the informal sector. Data from the surveys were analyzed using SPSS software and subjected to the binary logistic regression test. From this investigation, the following results emerge: (1) mobile finance positively influences the financial education of rural women in the informal sector; (2) the mobile wallet contributes to an increase in the income of rural women in the informal sector and (3) mobile payment accelerates the access of rural women in the informal sector of Yagoua to financial services. In order to further promote the financial inclusion of rural women, moderately literate, formerly excluded from the traditional financial system and working in the informal sector of Yagoua, it would be wise to find ways and means to enable them to access the services of formal financial institutions through Mobile Money.

Key words: Mobile money, rural women, financial inclusion, informal sector

INTRODUCTION

Africa is now the world's second fastest growing region after Asia, with annual GDP growth rates more than 5% over the last decade. Many countries, especially in sub Saharan Africa, have achieved high growth rates over the past decade, and many aspire to structural transformation, but the good performance has not turned into significant poverty reduction and shared prosperity. It has yet to provide low-income households and other vulnerable groups, such as women, enough opportunity to improve their living standards. One key component of inclusive development is financial inclusion, an area in which Africa has been lagging over other continents. This study seeks to provide various ways showing that the implementation of Mobile Money network through Orange Money in the case study will enable economic relevance and prominence amongst the female population of Yagoua¹.

¹ Yagoua is a council in Cameroon located in the Far North region, near the border with Chad (Bongor) which covers an area of 950 km². It is the capital of the division of Mayo-Danay.

Financial inclusion is therefore vital to ensure that economic growth performance is inclusive and sustained. Financial inclusion refers to all initiatives that make formal financial services Available, Accessible and Affordable to all segments of the population. In Africa, insufficient documentation is an important barrier for younger adults and women to open an account while distance from a bank is a commonly cited barrier for adults living in rural areas. Bringing financial services to rural clients is a major challenge on the financial inclusion agenda. Often the main barrier to financial inclusion in rural areas is the great distances that rural households must travel to reach a bank. The lack of infrastructure may explain why Africa has been at the forefront of mobile financial services which is considered a bright spot in improving financial inclusion.

The number of women entering the workforce in Africa has been substantially increasing over the last decade while women-owned businesses are a growing share of all enterprises in many African countries. Financial inclusion of women and girls can create gender equality by empowering them and giving them financial autonomy. Savings accounts can provide women and girls with a safe and formal platform to save their earnings for future investments in business operations and build a credit history.

Lack of access to financial services reduces women's ability to climb out of poverty; increases their risk of falling into poverty; contributes to women's marginalization to the informal sector; and reduces their ability to fully engage in measurable and productive economic activities. While women represent a larger share of the self-employed in developing countries and thus are in greater need of access to formal financial services, they are less likely to secure bank credit according to research by the World Bank. Women's financial inclusion is an underused source of growth that should be harnessed to achieve sustainable and inclusive development. In addition to the economic benefits, financial inclusion of women has social benefits. Indeed, research has shown that women use their earned income and savings more productively, channeling a large share to children's nutrition, clothing, health, and education (Burjorjee et al., 2002).

Yet, according to Cameroon's Telecommunications Regulations Agency, the mobile telephone penetration rate in Cameroon rose from 9.8% to 71% between 2004 and 2014. This explosion in mobile service usage has become an excellent opportunity to develop mobile banking services that could help improve banking access in Cameroon. Though not without skeptics, mobile money has been hailed for its role in fostering financial inclusion among the poor and unbanked, as well as championed for bringing organizational cost and time savings, increasing financial transparency, and reducing security risks.

Yet, until recently, in Africa and elsewhere, little was known about the reach of the financial sector—the extent of financial inclusion and the degree to which disadvantaged groups such as the poor, women, and youth are excluded from formal financial systems (Demirgüç-Kunt et al., 2012)

The role women play as important economic agents is largely invisible by the fact that the majority work in the informal sector where their contribution is not adequately quantified or measured. Jerven (2013) argues in his book on the problem with African statistical data, the 'unrecorded economy' in Africa, to which women contribute significantly, continues to be

undervalued and underappreciated because of the unavailability of reliable and credible data. Despite the measures taken by the authority, that is, to ensure that the barriers to access financial services by women be removed through the creation of banks, microfinances (Credit du Sahel, Mutual communal Credit MC² and La Régionale) and Money Transfer Agencies (Express Union, Express Exchange and EMI Money) in this locality have no significant effect on them. There is plenty of compelling evidence that women are a powerful driver of economic growth. Women generally face a wide spectrum of financial challenges, many of which have been documented in many studies. These include, but are not limited to, lower levels of education and financial literacy, lower income levels, lack of tangible assets or collateral, legal constraints, time and mobility constraints, socio-cultural constraints, inter-role conflicts from juggling domestic and professional roles and a lack of market exposure (Demirgüç-Kunt et al., 2013).

An estimated 12% of the adult population in SSA have a mobile money account compared to only 2% worldwide (Demirgüç-Kunt et al. 2014). The mobile financial services are relatively cheap, secure, reliable and accessible and have seen majority of the poor and low income earners expand their financial platforms to include mobile banking, agency banking and other forms of financial services. In particular, the wide-spread use of mobile phone technology has opened new markets across SSA and has necessitated financial services to reach consumers in remote areas where banking services is lacking.

The barriers that constrain women's access to finance, compared to men's, limit (by approximately half) the poverty reducing, and growth promoting potential of finance and may prove costly in terms of foregone development and potential macroeconomic gains (Narain & Sushma, 2009). Differential treatment under law or customs may also constrain women to enter contracts under their own name, including the opening of a bank account (IFC, 2011 and World Bank, 2012). Most economically active women in Africa operate in the informal sector (Chen, 2001). The lack of education, work experience, and financial literacy skill results in an inability for women to "navigate the system", which leaves them disadvantaged when it comes to seeking finance (Hallward-Driemeier, 2011).

This study seeks to provide various ways showing that the implementation of Mobile Money network through Orange Money in the case study will enable economic relevance and prominence amongst the female population of Yagoua. In other words is question to evaluate the influence of Mobile Money on the financial inclusion of rural women in the informal sector. The remaining of the paper is organized as follows: we present a brief overview of the existing literature in section 2; in section 3, we expose the methodological elements of empirical analysis; in section 4, we present the preliminary statistical analyses of the data. The empirical results and their comments are exposed in section 5. Finally, section 6 concludes the article.

LITERATURE REVIEW AND RESEARCH HYPOTHESES

The association of the word "Mobile finance" and "financial literacy" goes beyond the access to a full suite of quality financial services (provided at affordable prices, in a convenient manner, and with dignity for the clients) as assume. It adds that the services provided by a range of private institutions (Mishi & Kapingura., 2012).

(Gardeva & Rhyne, 2011) notes that based on survey results, CFI (Corporate Finance Institute) expands its definition to note that full inclusion requires the clients of these services to be financially literate. It should be further noted that financial education is one of the best ways to empower the working poor to take control over their financial lives, especially those in the informal sector, which has a ripple effect to all areas of their lives. Currently the definition of financial inclusion has been improved to recognize the need for financial literacy for a proper financial inclusion to be realized. Financial literacy is an important tool to help the customers to accept and use the products to which they increasingly have access which in our case implies Orange Money. It helps to develop skills to compare and select the best products for their needs and empower them to exercise their rights and responsibilities. It enables women to act “Smart Financially” by providing them knowledge and skills to understand financial planning, basics of banking, understanding need of household budgeting, cash flow management and asset allocation to meet financial goal (Pratisha, 2015).

Mobile Finance pose an even greater challenge to poor women as they require a level of familiarity with the use of a mobile device, as well as the confidence to use it, which women generally lack because of educational, social and economic constraints (GSMA, 2013). Empirical evidence suggests financial literacy’s positive impact on financial behavior and financial status in many behavioral domains. Financially-literate individuals do better at budgeting, saving money, and controlling spending (Perry & al., 2005); handling mortgage and other debt (Campbell, 2006; Lusardi & Tufano., 2015); participating in financial markets (Van Rooij and al., 2011; Christelis et al., 2010; Yoong, 2010); planning for retirement (Lusardi and Mitchell, 2007a; Lusardi and Mitchell, 2008); and ultimately, successfully accumulating wealth (Stango et al., 2009).

Establishing and protecting economic empowerment on an equal basis for men and women has been recognized both as a basic human right, and as an issue for policymakers. Indeed, women’s empowerment is a “prerequisite for sustainable development, pro-poor growth and the achievement of all the Millennium Development goals” (GenderNet, 2011). The above literature permits us to come out with the first specific hypothesis:

H1: Mobile finance facilitates the financial literacy of the rural women in the informal sector

Mobile wallet is an electronic account, linked to the SIM card in the mobile phone. It’s protected by a personnel identification number (PIN). Innovative method of saving provided by telecommunication companies. This eventually leads to the increase in the revenue of the rural women. Given the rapid development of Orange money solutions, soliciting funds from husbands in the cities makes it impossible for husbands to have an excuse for not sending money when a family member informs them of the need. People know that services are available everywhere.

In the past, it was not rare that women give their money to their husband to keep for them. Some husbands would return it when they requested it, others would not. Access to basic banking services in Sub-Saharan Africa remains limited, and lags far behind even other parts of the developing world. Chaia et al. (2009) combine many data sources to estimate that only about 20% of households in Sub-Saharan Africa were banked in the early 2000s. A closely related option which has received a substantial amount of recent attention is “mobile money,” in which people can transfer, deposit, and withdraw money using their cell phone (Jack & Suri,

2009). By increasing the GDP rate per capita thanks to the productivity gains associated with mobile phone communications, mobile money could have the potential to increase incomes (Afful-Broni, 2012; Gencer, 2011). Women could be able to preserve a greater portion of received transfers, which could positively affect the “allocation of household spending” (Jack & Suri, 2010). Expansion of saving services alone also appears to have the potential to be beneficial. In an earlier experimental study in Kenya, Dupas and Robinson (2009) provided small-scale entrepreneurs access to accounts in a local Village Bank, and found large effects on business investment and income among a subsample of the study population (market vendors, who are mostly female). In a similar experiment in Nepal, Prina (2011, 2015) also finds large impacts of expanding access to savings accounts for women.

Mobile banking with Mobile money services is an innovative mechanism which permits the holder save money for daily transactions. This phenomenon enables the holder to increase their income by mastering their expenditures. This has enabled us to come out with the second specific hypothesis.

H2: Mobile Wallet enables the increase in revenue of rural women in the informal sector.

Mobile Payment is a service allowing unbanked people to purchase or sell goods and services at a merchant shop/store (or remotely) using their mobile wallet through their mobile phone, instead of cash. Unbanked mobile phone users can also pay utility bills via their mobile wallet (ACP, 2014). The access to financial services permits the payment of utility bills via Orange Money hence leading to traceability, reduction in cash flow in the economy, fight against corruption and security of funds.

Donovan (2014), precise that Poverty is more than just a lack of money. It involves a lack of access to the instruments and means through which the poor could improve their lives. Exclusion from the formal financial system has increasingly been identified as one of the barriers to a world without poverty. In many developing countries, more than half of households lack an account with a financial institution, while small firms frequently cite difficulty in accessing and affording financing as a key constraint on their growth. On a macroeconomic level, these financial constraints on the poor can slow economic growth and exacerbate inequality (Demirgüç-Kunt, Beck, et al. 2008). According to the Consultative Group to Assist the Poor (CGAP), roughly 1 billion people have a mobile phone but no bank account. Providing them access to mobile financial services will involve difficult implementation that is unlikely to succeed quickly. Some inhabitants sometimes go as far as recruiting other people to pay bills in their place. Thanks to past agreements with public authorities and businesses, Orange Money offers an alternative to endless journeys and queues. After reloading his account at any point of sale, the customer indicates his invoice number in the menu, and validates the payment in a few seconds. He then receives a confirmation of the transaction. The number of partners of this service is increasing day by day, with a craze especially the largest billers (water, electricity, etc.) and major universities. This enables us to come out with the third hypothesis

H3: Mobile payment favors the access of financial service by rural women in the informal sector.

RESEARCH METHODOLOGY

This research is based on an exploratory and experimental approach. It is a matter of establishing the link between Mobile Money and financial inclusion of rural Women. Therefore, the approach that we will adopt is that called hypothetical-deductive because it consists of checking after investigation a set of hypotheses formulated. At the end of the analysis, the previously stated assumptions can be overturned or confirmed. Given the objectives of the study, the method of combining the tools seems the most appropriate. Three data collection instruments were selected: the questionnaire sent to rural women in informal sector, participant observation and documentary research. The use of these different instruments will enable us to objectively assess the impact of Mobile Money on the financial inclusion of rural women.

Source of data and sample of the study

This study surveys a sample of 98 rural women in the informal sector who uses Orange Money services in Yagoua. We collect qualitative data which is processed using SPSS software and modeled in a logit-type regression.

The model used: the logistic regression model

According to Desjardins (2007), logistic regression is defined as a technique for fitting a regression surface to data when the dependent variable is dichotomous. It is useful when you want to predict the presence or absence of a characteristic or result based on certain values or a group of predictor variables. It is like linear regression but is suitable for models in which the variables are dichotomous. The logistic regression coefficients can be used to estimate odds ratios for each of the independent variables in a model. Logistic regression applies to a wider range of search situations than discriminant analysis. This study is used for analyses aimed at checking whether independent variables can predict a dichotomous dependent variable. The idea of logistic regression is to model (K-1) odds ratios.

The likelihood ratio statistic always corresponds to the comparison of the deviances of the regressions under H0 and H1. It follows a chi-square law under the null hypothesis. The degrees of freedom are obtained by differentiating the number of estimated parameters.

Regarding the hypotheses put forward, we have three models whose dependent variables are financial literacy (FL), increased income for rural women (IR) and access to financial services for rural women in the informal sector of Yagoua (AFS).

These three dependent variables represent the three dimensions of financial inclusion that we retained in our study.

Model 1: *Mobile finance facilitates the financial literacy of the rural women in the informal sector*

$$FL = \text{Ln}\left(\frac{\pi}{1-\pi}\right) = \beta_0 + \beta_1 DW + \beta_1 CFT + \beta_2 SA + \varepsilon_i$$

Model 2: *Mobile Wallet enables the increase in revenue of rural women in the informal sector*

$$IR = Ln\left(\frac{\pi}{1-\pi}\right) = \beta_0 + \beta_1 COMA + \beta_1 AOA + \beta_2 SMOA + \varepsilon_i$$

Model 3: Mobile payment favors the access of financial service by rural women in the informal sector.

$$AFS = Ln\left(\frac{\pi}{1-\pi}\right) = \beta_0 + \beta_1 PCOM + \beta_1 PGOM + \beta_2 PUB + \varepsilon_i$$

With:

(1) Financial literacy (FL) as dependent variable

DW: Deposit/Withdrawal

CFT: Cost of Financial Transaction

SA: Security of Account

π : Mobile finance facilitates the financial literacy of rural women in informal sector of Yagoua

$(1-\pi)$: Mobile finance does not facilitate the financial literacy of rural women in informal sector of Yagoua

ε_i = error term

(2) Increase in Revenue (IR) as dependent variable

COMA: Procedure of the Creation of an Orange Money Account

AOA: Access to your Orange Money Account

SMOA: Saving Money in your Orange Money Account

ε_i = error term

π : Mobile Wallet enables the increase in revenue

$(1-\pi)$: Mobile Wallet does not enable the increase in revenue

(3) Access of Financial Service (AFS) as dependent variable

PCOM: Payment from Clients via Orange Money

PGOM: Payment of Goods via Orange Money

PUB: Payment of Utility Bills

π : Mobile payment promotes Access to Financial Services

$(1-\pi)$: Mobile payment does not promote Access to Financial Services

ε_i = error term

PRELIMINARY STATISTICAL ANALYSIS

We will make a descriptive analysis of the indicators that have been selected to measure the financial inclusion of rural women in the informal sector (VD). These include financial literacy (VD.1), increased income of rural women in informal sector VD.2) and access to financial services for rural women in the informal sector (VD.3)

Annex1 shows that thanks to the use of Mobile Money, 84.7% of women in the informal sector of Yagoua manage their financial resources well, while 15.3% say that this is not the case for them.

It shows that 87.8% of rural women in the informal sector of Yagoua saw their income increase through the use of Orange Money while 12.2% of them say that this is not the case.

It shows that 78.6% of women surveyed find access to financial service easy, while 21.4% feel that access is rather difficult.

It is a question of highlighting the results of the tests resulting from the different crossings of variable. Before starting the analysis, itself, it is important to present the tables characterizing the variables resulting from the hypotheses, then to the interpretation of these and finally to the verification of the hypotheses. The interpretation of the results will lead us to give an explanation to the statistical data obtained, which will justify the previously supposed answers to our research. We perform the differential analysis through the logistic regression test to verify our assumptions.

Overall model quality

Three tests allow us to check the overall quality of the models. These are the likelihood ratio (deviance) test, the chi-square test and the pseudo-R².

For the three models, the -2log likelihood presents quite low values which demonstrate the good quality of the relationships existing between the explanatory variables and the dependent variables.

The likelihood ratio test, which amounts to a chi-square test, presents calculated X²s that are much higher than the theoretical X²s, so we can safely say that the quality of three models is good.

The pseudo-R square

Usually McFadden's pseudo R-square is used to check the validity of the logistic regression model. But within the framework of this study we use the R² of Cox and Snell and the R² of Nagelkerke. The latter is also the adjusted Cox and Snell R² and will be favored in the analysis. In the case of three models, the Nagelkerke R² values are successively 0.885 (model 1), 0.674 (model 2) and 0.437 (model 3). These are the values of the variances explained by the models. In a logistic type regression these values are better. Generally the R² is low and McFadden (1977) considers that an R² whose value is between 0.2 and 0.4 demonstrates a model of good quality of adjustment.

It can therefore be said that the three models are of good quality.

Table 1: Test of verification of the strength of the hypothesis, Likelihood Test and Pseudo R-Square

		Model 1	Model 2	Model 3
Test of verification of the strength of the hypothesis	-2Log likelihood	42,561	67,221	97,058
	Cox & Snell R Square	,778	,460561	,476
	Nagelkerke R Square	,885	,674	,437
Likelihood Ratio Test	Omnibus Tests of Model Coefficients	$\chi^2_{\text{cal}}=42,561 > \chi^2_{\text{read}}=7,815$ at ddl = 5 Sig threshold 0.03 < 5%,	$\chi^2_{\text{cal}}=25.647 > \chi^2_{\text{read}}=11.070$ at ddl = 5 Sig threshold 0.03 < 5%,	$\chi^2_{\text{cal}}=55,780 > \chi^2_{\text{read}}=7,815$ at ddl = 3 threshold 0,04 < 5%,

Source: authors

RESULTS AND DISCUSSION

The results of the various regressions are recorded in Table 2 below.

Table 2: Variables in the Equations (Model 1, 2, 3)

	Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Model 1	DW	,247	,606	,166	1	,000	,781
	CFT	,963	1,090	,780	1	,000	2,620
	SA	,674	,516	1,709	1	,001	1,962
	Constant	-4,136	2,260	3,349	1	,000	,016
Model 2	COMA	-,587	,560	1,097	1	,000	,556
	AOA	,327	7880,894	3,100	1	,000	,618
	SMOA	,240	,693	2,120	1	,000	1,272
	Constant	-55,604	23642,682	,000	1	,912	,000
Model 3	PECOM	-,115	,439	,069	1	,793	,891
	PGOM	-,111	,417	,970	1	,325	,663
	PUB	,717	,022	,592	1	,001	1,017
	Constant	-,120	,934	,017	1	,898	,887

Source: authors

Evaluation of the significance of the coefficients: the Wald test

Model 1: All the coefficients of the variables DW (Deposit / Withdrawal), CFT (Cost of Financial Transaction) and SA (Security of Account) are positive and positively affect the financial literacy of women in the informal sector of Yagoua at the threshold of 1 %.

Model 2: all the COMA, AOA and SMOA coefficients are significant at the 1% level. The Procedure of the Creation of an Orange Money Account (COMA) has a negative sign. This means that this procedure for creating an Orange Money account has a negative impact on the increase in income of rural women in the informal sector of Yagoua. This is understandable as the creation of an Orange Money account does not mean storing money in such an account. The first objective of creating such an account is first of all to facilitate the transfer of money. Access to your Orange Money Account (AOA) and Saving Money in your Orange Money Account (SMOA) have a positive sign and thus reflect the increased income of rural women.

Model 3: the variables Payment from Clients via Orange Money (PCOM) and Payment of Goods via Orange Money (PGOM) are not statistically significant. These variables therefore have no influence on the dependent variable AFS (Access to Financial Services). Only the Payment of Utility Bills (PUB) variable is significant at the 1% level and has a positive impact on rural women's access to financial services. Rural women therefore rarely use their Orange Money accounts to settle debts with customers and to pay for goods. On the other hand, they use their Orange Money accounts to pay their water or electricity bills, thus avoiding long queues (for those who are obviously connected to the water or electricity networks).

The three models are globally significant and the verification of the confirmation or otherwise of the three hypotheses put forward can be found in the following table 3:

Table 3: Summary of hypothesis validation

Research Hypothesis	Indicators	Likelihood ratio test (Value of χ^2)	Inference	Model strength verification test (R ² Nagelkerke)
H1: Mobile Finance facilitates the financial literacy of rural women in the informal sector of Yagoua	DW : Deposit/Withdrawal***	$\chi^2_{cal} = 42,561 > \chi^2_{read} = 7,815$ at ddl = 5 Sig threshold 0.03 < 5%,	H1 is confirmed	0,885 Which is 88,5%
	CFT: Cost of Financial transaction**			
	SA: Security of an Account***			
	VD.1 : Financial Literacy			
H2: Mobile Wallet enables the increase in revenue of rural women in the informal sector of Yagoua.	COMA : Procedure in the creation of an Orange Money Account***	$\chi^2_{cal} = 25.647 > \chi^2_{read} = 11.070$ at ddl = 5Sig threshold 0.03 < 5%,	H2 is confirmed	0,674 Which is 67,4%
	AOA : Access to your Orange money Account***			
	SMOA Saving Money in your Orange Money account***			
	VD.2 : Increase in Revenue			
H3: Mobile payment favours the access of financial service by rural women in the informal sector of Yagoua.	PECOM : Payment from Clients via Orange Money	$\chi^2_{cal} = 55,780 > \chi^2_{read} = 7,815$	H3 is partially confirmed	0,437 Which is 43,7%
	PGOM : Payment of			

	goods via Orange Money	at ddl =3thres hold 0,04 < 5%,		
	PUB : Payment of Utility bills***			
	VD.3 : Access of Financial Service			

***: p-value < 1%

Source: Authors

What lessons can we learn from the above results with regard to financial education, increased incomes of rural women in the informal sector and access of these women to financial services?

Financial literacy

When poorly literate rural women are provided with the knowledge and tools necessary to understand the importance of money management, the level of financial literacy of all.

Cameroonians is enhanced. 50.6% of rural women have the primary level against 39.8% in the first level of secondary and 9.4% of the second level of secondary.

The determinants of the financial literacy of rural women in the informal sector in Yagoua are making deposits / withdrawals, low transaction costs and appreciation of account security. These determinants explain 88.5% of this financial literacy, hence the confirmation of hypothesis H1 according to which mobile finance facilitates the financial literacy of rural women in the informal sector of Yagoua. However Fanta & Mutsongziwa (2021) have found in a survey conducted in Kenya and Tanzania that financial literature is a driving force for financial inclusion. They started from the fact that we may increase the supply of goods and services, but if individuals, due to a lack of financial education, cannot appreciate the goods and services offered, they will not be able to access these products and services. This makes financial education a prerequisite for any decision concerning the issue of financial inclusion.

Furthermore, authors such as Atkinson and Messy (2013) have found in their research that low levels of financial inclusion are generally associated with low levels of financial literacy.

In the same vein, Nyoka (2019) conducting a study on the case of South Africa found that:

“There is a statically significant relationship between educational levels on the one-hand and Income levels on the other on the probability of one having a mobile banking account in South Africa”.

Increased income for rural women

Rural women in the informal sector in Yagoua carry out various income-generating activities. Among the latter we count the cultivation of rice (in two seasons: rainy and dry), crafts, petty trade, catering, production of local beer (bil-bil) etc. These activities require beforehand certain inputs such as fertilizers and pesticides for the cultivation of rice, a small fund for the start of

other activities. Given the prevailing level of poverty, it is difficult for these women to start a profitable activity. Sometimes these women have children who are employed either in the public or in the private sector and who are far from them in the south of the country. The advent of Orange Money is a great opportunity for them to receive funds intended for them. Not only can they receive funds through the Orange Money account, but also save part of their income in this account to escape their husbands' seizure of their funds. The procedure for creating an Orange Money account, accessing this account and saving money in this account therefore allow rural women to increase their income. And these factors explain 67.4% of the increase in income of rural women in the informal sector in Yagoua. Although some authors like Mbithi and Weil (2011), in conducting a study on the impact of M-Pesa in Kenya, found that there is a weak correlation between the use of M-Pesa accounts and wealth conservation.

Hence the validation of hypothesis H2 according to which the mobile wallet increases the income of rural women in the informal sector in Yagoua.

Access to financial services

Some authors (AFI, 2010) consider that financial inclusion can be understood through four prisms: access, quality, use and well-being. Access is the ability to use available financial products and services offered by financial institutions. Quality measures the relevance of the service or financial product to meet the needs related to the lifestyle of the consumer. Use emphasizes the permanence and intensity of use of the service or financial product.

On the other hand, well-being is the most difficult result to measure. It is the impact of the financial product on the lives of consumers, including the induced changes in consumption, economic activities and the well-being of the populations concerned. But is it just necessary to access financial services? It would still be necessary to control the use. Some authors like Beck et al. (2013) will feel that it is not enough to simply define access, but that it is important to be able to differentiate it from use. Access is the possibility of use while use is the actual use of financial services. But in practice it is difficult to distinguish between the two words. In the case of rural women in the informal sector in Yagoua, it seems that their Orange Money account is not. They are not used to pay their customers directly and also to buy goods. It is only the payment of water or electricity bills that prompts women to use their Orange Money accounts to pay their letter carriers in order to escape the long lines at ENEO or CAMWATER agencies. Hypothesis H3 (mobile payment promotes access to financial services for rural women in the informal sector in Yagoua) is therefore partially confirmed.

CONCLUSION AND RECOMMENDATIONS

The objective of this research was to analyze if Orange Money can influence the financial inclusion of rural women in the informal sector of Yagoua. In effect, coming from a context in which women suffer a lot of financial exclusion and the lack of access to basic financial services making them to dwell on the informal sector. In this article we associated three principal factors to financial inclusion which are mobile transfer (finance), mobile Wallet and mobile payment. It would be inappropriate to complete this work without, however, making suggestions to combat the phenomenon of financial exclusion of rural women in the informal sector. Suggestions are made to the state, Women in the informal sector, financial institutes and telecommunication agencies.

The state through its different agencies can put in place different instruments in order to encourage the financial services by providing a regulatory system, help in salary and utility bill payment. Adopting mobile money would increase the government's ability to reach the unbanked population in rural areas of the country. Public actions could initially be directed towards poverty reduction (job creation, education, etc.), with the aim of subsequently stimulating the participation of the financial system in growth.

Financial inclusion is a great step to for women empowerment in Cameroon. But to achieve this, the government should provide a less perspective environment in which banks are free to pursue the innovations necessary to reach low income consumers and still make a profit.

Inclusive growth will act as a source of empowerment and allow women to participate more effectively in the economic and social process.

It is therefore recommended to consider training programs in financial literacy and entrepreneurship skills specifically targeting the rural poor in order to fully leverage the investment potential associated with the mobile money platform in complement with promoting access to its range of services. Develop financial education programs for clients and the general public.

The main objective for these women will be to leave the informal sector to the formal sector with the use of Orange money. Mobile Money can permit the rural Women to be able to have a traceability in their account, be accessible to their account and it will permit them save money of their business.

It is important that the level of income per capita increases to see a wide audience use the services of financial institutions. It would also be important for banks and microfinance institutions to tailor the products they offer to their clients' income level.

Financial institutions need to invest in researching financial service such as Mobile Money profiles that match the demand of individual and women in particular.

Unfortunately, the 2022 finance law earlier introduced a 0.2% tax on transfer amounts in Cameroon. This could lead to a slowdown in transactions which, for ten years already, had become a habit of people once excluded from traditional financial systems.

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ANNEXES: DESCRIPTIVE DEMOGRAPHIC DATA OF THE SAMPLE**Annex 1: Distribution by age group, marital status of respondents, Level of study**

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 30 years	29	29,0	29,6	29,6
	30-40 years	50	50,0	51,0	80,6
	40-50 years	19	19,0	19,4	100,0
	Total	98	100,0	100,0	
Marital status					
Valid	Single	59	59,0	60,4	60,4
	Married	29	29,0	29,4	89,8
	Widow	10	10,0	10,2	100
	Total	98	98,0	100,0	
Level of Study					
Valid	Primary	50	50,0	50,6	50,6
	Secondary first cycle	29	39,0	39,8	90,4
	Secondary second cycle	9	9,0	9,4	99,8
	Superior	1	1,0	0,2	100,0
	Total	98	98,0	100	

Source: Fieldwork**ANNEX 2 - Distribution of Respondents According to Customer Payment and Opinions via Orange Money**

Notice of deposits/withdrawal on a daily basis					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	80	80,0	81,6	81,6
	Often	15	15,0	15,3	96,9
	Never	3	3,0	3,1	100,0
	Total	98	98,0	100,0	
Appreciation of the financial transaction Cost					
Valid	Cheap	9	8,9	9,2	9,2
	Moderate	87	86,1	88,8	98,0
	Expensive	2	2,0	2,0	100,0
	Total	98	97,0	100,0	
Account Security Level					
Valid	Satisfactory	83	82,2	84,7	84,7
	Moderate	12	11,9	12,2	96,9
	UnSatisfactory	3	3,0	3,1	100,0
	Total	98	97,0	100,0	
Procedure in the creation of an Orange Money account					
Valid	Complex	3	3,0	3,1	3,1
	Moderate	12	11,9	12,2	15,3
	Simple	83	82,2	84,7	100,0
	Total	98	97,0	100,0	
Access to your Orange money account					
	Difficult	6	5,9	6,1	6,1

Valid	Moderate	9	8,9	9,2	15,3
	Easy	83	82,2	84,7	100,0
	Total	98	97,0	100,0	
Saving Money in your Orange Money account					
Valid	Occasionally	15	14,9	15,3	15,3
	Regularly	77	76,2	78,6	93,9
	Never	6	5,9	6,1	100,0
	Total	98	97,0	100,0	
Payment from Clients via Orange Money					
Valid	Very often	20	19,8	20,4	20,4
	Often	49	48,5	50,0	70,4
	Never	29	28,7	29,6	100,0
	Total	98	97,0	100,0	
Payment of goods via Orange Money					
Valid	Very often	10	9,9	10,2	10,2
	Often	20	19,8	20,4	30,6
	Never	68	67,3	69,4	100,0
	Total	98	97,0	100,0	
Payment of Utility bills					
Valid	Very often	9	8,9	9,2	9,2
	Often	21	20,8	21,4	30,6
	Never	66	65,3	67,3	98,0
	Total	98	97,0	100,0	

Source: Fieldwork