Dynamic Analysis of Determinants of Financial Inclusion in Cameroon

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Abstract

The aim of this study is to identify the determinants of financial inclusion in Cameroon between 2011 and 2014. The study uses the maximum likelihood method applied to a logistic regression model. The results shows that the main determinants of financial inclusion in Cameroon are education and income. However, the education variable negatively influences all indicators of financial inclusion. While, income positively affects all indicators of financial inclusion over the two periods apart from the type of credit to which it is negatively correlated in 2011. The policy implication of this study is that the State in its institutional, legal and regulatory framework policies, set up a strategy to encourage financial education so as to draw the attention of all the population to basic foundations on the value of money, the functioning of the financial sector, the proper use of credit and mobile accounts.

Keywords: Financial inclusion, Determinants, Logit model, Maximum likelihood

Introduction

Financial inclusion is the subject of numerous economic investigations (UNCDF (2015); Avom and Bobbo (2013); López and Winkler (2019); Leon and Zins (2019)). It is defined according to Sarma (2008) as a process that ensures the ease of access, availability and use of the formal financial system to all members of a society. It provides low-cost basic financial and banking services to struggling consumers and those excluded from traditional banking services, and increases low-income people's access to financial services. Demirguc-Kunt et al. (2018) find that more than two billion adults are banked worldwide in 2017. The penetration rate of the internet and mobile phone in the Central African Economic and Monetary Community (CEMAC) Region

estimated at 80% (Kengne, 2018). The value of mobile banking[1] transactions as a percentage of GDP increased from 0.08% in 2013 to 4.50% in 2016, and then to 30.24% in 2018 in Cameroon; this reflects the importance of this phenomenon, and further explains the growth rates observed in this country (Financial Access Survey, 2019).

With a growth rate of 3.8% in 2018 (African Economic Outlook, 2019), Cameroon is experiencing a clear improvement in terms of financial inclusion whether in terms of deposits or borrowings in commercial banks. Thus, the number of deposits per 1000 adults has increased from 59.53 in 2013 to 132.19 in 2018. This change is observed in the number of automatic teller machines for 100,000 adults (Demirguc-Kunt et al., 2018). Banks and other formal financial institutions in Cameroon have adjusted their customer base from 962,627 in 2007 to around 1,500,000 (Global Findex, 2014). In addition, the literature shows that financial inclusion reduces information and transaction costs, influences savings rates, investment decisions, technological innovation and long-term growth.

In the literature, debates on the determinants of financial inclusion remain controversial. en et al. (2012); Demirgüç-Kunt and Klapper (2013); Fungacova and Weill (2014); Kabakova and Plaksenkov (2018) argue that socio-economic, geographic and demographic variables promote financial inclusion. However, Beck et al. (2012); Kacem and Zouaril (2013) find that these variables dishearten the policy of financial inclusion. The advances in technology and especially mobile phones have revolutionized financial services provision and introduced new models of serving the poor. 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 Cameroon and has necessitated financial services to reach consumer in remote areas where banking services is lacking. To the best of our knowledge, no study has taken its aspects into account in the Cameroonian context and few studies have attempted to make a dynamic analysis between mobile account and account at a financial institution. The present study fills this gap in the literature.

The main objective of this study is to make a dynamic analysis of the determinants of financial inclusion in Cameroon between 2011 and 2014. Specifically, the study focuses on the influence of age, gender, education and income on the mobile account and financial institutions account. The remainder of the paper is organized as follows: sections 2 deals with the

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[1] Service offered by mobile phone agencies allowing individuals to make deposit and withdrawal transactions in their account without going through a bank financial intermediary.

literature review, section 3 presents the methodology, section 4 focuses on the results and discussion while section 5 presents the concluding remarks.

Literature Review
Theoretical Review
Debate on Measuring Financial Inclusion

Measuring financial inclusion is a challenge, since access must be differentiated from the use of financial services (CGAP, 2009). Individuals may choose not to use financial services despite their availability (voluntary exclusion), thereby reducing access usage. As a result, voluntary exclusion should ideally be taken into account in estimating the real accessibility of financial services.

The distinction between access and use of financial services is difficult because data on access is limited. The studies of Chaia et al. (2009) suggest does not separate the two concepts and consider use as a proxy indicator of access. However, for Camara et al. (2014), the high availability of formal financial services in terms of accessibility does not necessarily imply that the system is inclusive. According to World-Bank (2008), improving financial inclusion can be achieved by measuring access to financial services. According to Chidzero et al. (2006), financial inclusion can be better understood according to the type of financial intermediary and its degree of formality.

Given the importance of the informal sector in developing countries, the World-Bank (2008) proposes to measure access according to the financial products used. However, this measure is not universal. This leads to the use of different indicators to capture financial inclusion. For example, Sarma (2008) developed a composite index as part of the work on financial inclusion in India to better capture the phenomenon. The measure of inclusive finance is primarily addressed through use and access to formal financial services, using aggregate supply data (Honohan (2008); Sarma et al. (2012)). However, the literature distinguishes two approaches to measuring access to the financial service.

The first is to use data held by service providers (supply) (Sarma et al. (2012); Honohan (2008)). The second is to directly survey households about their use (demand) (World-Bank (2009); Honohan (2008); Cull and Scott (2010)).

The debate on the determinants of financial inclusion

The literature distinguishes three broad categories of the determinants of financial inclusion. The first is at the level of the meso and the macro-environment. In this category, the environment conditions the interaction between supply and demand for financial services. The financial structure and

the legislative, policy, regulatory and economic framework affect the relationship between clients and financial intermediaries (Helms, 2006). This category of determinants is consistent with the systemic risks suggested by Beck and De la Torre (2005). In terms of financial architecture, the geographic location of branches and service points influences the ease with which clients can access financial services (World-Bank (2008); Beck et al. (2009)). In addition, limited or too expensive transportation services restrict people's movement to financial organizations. This shows that provider location is influenced by physical infrastructure in developing countries (Beck et al. (2005); CGAP (2010)). Thus, with competition in the sector, service providers are encouraged to innovate to increase their market share by developing new ways to reach customers and to overcome the lack of physical infrastructure[2].

The second category is about customers. It distinguishes voluntary exclusion from involuntary exclusion. Voluntary exclusion refers to a situation where individuals have access to financial services, but do not use them. First, some individuals may believe they do not need the financial products they offer (Kempson (2000); Claessens (2006)). Other authors (Chidzero et al. (2006); Beck and Demirgüç-Kunt (2008)) note that some people do not seek to access the financial system themselves, since they already use the financial services of a member of their community or friend (indirect access). According to Beck et al. (2013), religious or cultural reasons, such as language, explain a part of voluntary exclusion. This causes systematic discrimination due to literacy.

In contradiction to voluntary exclusion, involuntary exclusion implies that individuals simply do not have access to financial services because the cost and the characteristics of the products, as well as the requirements of the providers, may not be suitable for them. This is usually justified by services that may be too expensive for clients (World-Bank, 2009). The presence of financial products not adapted to the needs of customers, as well as the lack of collateral (De Soto, 2000) are observed among people who need credit to invest in sectors producing wealth in Cameroon.

The third category relates to providers[3]. Financial exclusion can be explained by the limited supply of financial services. Recall that financial organizations allocate credit on the basis of expected profits (Bigsten et al., 2003). Poor customers often have no tangible guarantee to offer and cannot borrow on their future earnings because they often do not have stable jobs. In addition, limited information on the credit history of individuals may represent an additional risk. However, the information barrier through asymmetric information or uncertainty refers to the difficulty of measuring household

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[2] Telecommunications, internet, text messages.
[3] Person receiving a service.

solvency (Honohan (2005); Cull and Scott (2010)). The risk of providing financial services to poorer individuals is higher due to uncertainty about household-specific factors (illness, employment, death) and the environment (natural disaster, national economic crisis) (Matin et al., 2002).

Empirical Studies

The empirical literature is characterized by controversy over the different factors that determine financial inclusion. Debates focus on socio-economic, geographic, demographic and financial factors. Socio-economic factors include education, employment, income, and asset ownership. Concerning employment and education, having a job increases the likelihood of using financial services (Johnson et al., 2010). Similarly, a high level of education increases the chances of financial inclusion (en et al. (2012); Demirgüç-Kunt and Klapper (2013)). In contrast, Nino-Zarazua and Copestake (2008) and Tuesta et al. (2015) found no effect between level of education and financial inclusion in developing countries. This result was confirmed by De Soto (2000) who find that employment and education level do not influence financial inclusion. In terms of income, the majority of empirical studies find that it is positively correlated with the bank rate (Demirguc-Kunt et al. (2018); Beck et al. (2009)). In addition, possession of assets such as cell phones, cars, radio and television increase the chances of being financially included (Honohan and King (2012); Johnson and Nino-Zarazua (2011); Mago and Chitokwindo (2014); Asfaw (2015)). The studies of Honohan (2004) and Navajas et al. (2000) find that the use of financial services is still very low for people with low incomes while the latter have a negative impact on financial inclusion. However, Zins and Weill (2016) found a negative relationship between income, formal and informal saving.

In terms of geographical determinants, individuals living in rural areas have less access to financial services. Morvant-Roux and Servet (2007); Johnson and Nino-Zarazua (2011) and Honohan and King (2012) found that banking penetration in urban areas is higher than in rural areas. Nevertheless, according to Leyshon and Thrift (1995), bank exclusion is individual and has no connection with the area of residence. Since the categories suffering from some marginalization are also those who are experiencing more difficulty in accessing banking services. This increases their economic and social vulnerability. The OECD (2006), find through the figures that the growth rate of household debt depends on the level of their income and does not depend on geographical areas.

With respect to demographic factors, the Honohan and King (2012); Johnson and Nino-Zarazua (2011) and Johnson et al. (2010) find that, women use fewer formal services than men. Because they prefer to hoard or borrow from a relative. In this sense, Kunt and Klapper (2012) find that there is a

negative relationship between the use of a formal account and the feminine gender. In contrast, Demirgüç-Kunt and Klapper (2013) found a positive relationship between gender and financial inclusion. This result is consistent with that of Pitt and Khandker (1998), who find that women's access to financial services increases financial inclusion by reducing poverty and promoting the education of children. However, en et al. (2012) found no significant relationship between gender and possession of an account. This result was also observed by Fungácová and Weill (2015) in China.

In terms of age, the older people become, the more likely they are to be financially included than other age groups (Johnson and Nino-Zarazua (2011), Johnson et al. (2010)). But at a certain age (over 45) as shown by the works of Honohan and King (2012), the chances of having an account begin to decrease. In the same vein, they specify that individuals aged 18 to 24 are excluded from the finance services. In other words, their effect on finance is negative. The study of Caudill et al. (2009) on microfinance institutions in Eastern Europe and Central Asia reveals a negative and significant correlation between the age of these institutions and the level of their cost of production. This result is directly related to individuals over 45 years old as revealed by the results of Johnson et al. (2010).

Financial factors related to knowledge as well as financial habits exert controversial effects. Lack of financial literacy encourages mistrust of financial organizations and products and undermines financial inclusion (Morvant- Roux and Servet (2007); Beck and Demirgüç-Kunt (2008)). These show the negative role played by non-mastery of financial literacy on financial inclusion. On the other hand, those with financial knowledge are not averse to the use of financial services. According to Nino-Zarazua and Copestake (2008), people who have learned to save, manage their funds and calculate interest use more financial services. On the other hand, financial habits encourage individuals to adopt financial services. Nino-Zarazua and Copestake (2008) find that planning spending encourages discipline to save. They add that an individual who knows the return (interest) of his savings is more inclined to use financial services. Unlike these, Chidzero et al. (2006) and en et al. (2012) find that there are individuals with knowledge and financial habits who do not use these financial services because a family member is already using it. This negatively affects the level of access and use of financial services, thus reducing financial inclusion. Religion and client culture reduce access to financial services despite financial literacy (en et al., 2012). The discrepancies observed are a function of either the quality of the data, the regions or countries where the studies are carried out, or the methodology used.

Methodology

Quantitative and qualitative data are uses in the present paper. They come from the Global Financial inclusion database 2011 and 2014 (Global Findex, 2014). The data is in cross section. The choice of data and periods is linked to the availability of databases. The sample consisted of 999 individuals in 2011 and 1000 individuals in 2014. The model is inspired from the works of Fungacova and Weill (2014) and Demirgüç-Kunt and Klapper (2013). However, due to the constraint of data availability, financial inclusion (FI) is measured by the mobile account (CMM), the account in a financial institution (CFI) and the type of credit (TCREDIT). The econometric model is as follows:

$$FI = \beta_0 + \beta_1 income_i + \beta_2 age_i + \beta_3 sex_i + \beta_4 educ_i + \varepsilon_i \qquad (1)$$

Where FI is the group of three indicators of financial inclusion; β_0 is the constant term;

β_i (i=1, 2, 3, 4) represent the coefficients of the exogenous variables and ε_i is the error term.

The estimators obtained by maximizing the maximum likelihood function are effective. These estimators can also be obtained by maximizing the log of likelihood because the maximum likelihood function and its logarithm peak at the same point.

Before estimating the model, preliminary statistical tests and the chi-square dependence test are performed to ensure robust results. Because of the qualitative nature of the dependent variable and the law followed (the explanatory variables do not automatically follow a normal distribution), we will estimate the model through logistic regression. It gives the possibility to know not only all the explanatory variables that have a significant effect on the dependent variable, but also the meaning and strength of this relationship. Moreover, the interest of this model lies in the simplicity of the passage of the estimation of a coefficient which measures the strength of association between the financial inclusion FI_i and the explanatory variables X_i. The probability associated with the possibility of being included under constraints of the INCOME, AGE, SEX and EDUCATION variables is obtained statistically by:

$$FI_i = \frac{e^{a+b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4}}{1 + e^{a+b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4}} \qquad (2)$$

FI_i is apprehended by three variables: the credit type, the holding of an account in a financial institution and a mobile account. The type of credit is coded 1 for formal and 0 for informal; holding an account in a financial institution is coded 1 for no and 0 for yes and the mobile account is coded 1 for no and 0 for yes.

« a » is the y-intercept

« e » is the base of the natural logarithm, the Neperic constant of 2.718

« b » is the matrix of the respective regression coefficients of each model

« x1 » INCOME (poorer, poor, poor way, rich and richer)
« x2 » AGE
« x3 » SEX (1 for men and 0 for women)
« x4 » EDUCATION (0 for secondary and 1 for complete)

Given that the study appreciates the relationship between financial inclusion and its determinants, and that the endogenous variable is dichotomous, logistic regression serves as an analytical framework. The probability of financial inclusion (Pr $(=1/X_i)$) depends on a set of explanatory variables (X_i). It is a question of explaining the realization (or not) of each event. For example, the typical credit event that takes two values: y = {0; 1}

In fact, P (FI= y | X) $\in$ [0; 1]

Note: whatever the values of X, the value of P always remains between 0 and 1.

$$p_i \equiv Pr(y_i = 1|X_i) = F(X_i\beta) \tag{3}$$

For p_i to be a probability, the exponential function is taking to ensure positivity and a norm to ensure the upper bound. The probability that the variables income, age, gender, and education significantly influence financial inclusion in a logistic regression is given by:

$$p_i = P(y_i = 1|X_i) = \frac{e^{\beta X_i}}{1 + e^{\beta X_i}} \; and \; (1 - p_i) = \frac{1}{1 + e^{\beta X_i}} \tag{5}$$

Where X_i is the vector of the independent variables and β the vector the coefficients to be estimated.

As in all nonlinear models, the interpretation of the estimated parameters in a logit model requires caution. In fact, the parameters of the model only provide information on the positive ($\beta > 0$) or negative ($\beta < 0$) effect of the independent variables on the probability. For the quantification of the impact of each variable on the probability, one proceeds by the calculation of the odds ratios. These ratios make it possible to measure, for each X_i, the number n of chances an independent variable significantly influences the result against 1-time risk of not influencing it. These ratios are computed as follows:

$$Oddsratio = \frac{Pr(y_i = 1|X_i)}{1 - Pr(y_i = 1|X_i)} = e^{\beta X_i} \Leftrightarrow ln\left(\frac{Pr(y_i = 1|X_i)}{1 - Pr(y_i = 1|X_i)}\right)$$
$$= \beta_0 + \beta_i X_i + \mu_i \tag{5}$$

Expression (5) measures the number of times the appearance of $y_i = 1$ for a given independent variable against one failure. Considering the expression (4), the marginal effect of the jth explanatory variable $X_i^{[j]}$ is defined by:

$$\delta_i = \frac{\partial p_i}{\partial X_i^{[j]}} = \frac{e^{\beta X_i}}{(1+e^{\beta X_i})^2} \beta_j \tag{6}$$

The δ_i are easier to interpret directly; they describe the effect of the unit modification of a given variable on the probability that financial inclusion is considered efficient. Note that it is also possible for continuous variables to evaluate elasticities. To estimate the logit model, the maximum likelihood method is highlighted. It consists in finding the value of the parameters that maximize the likelihood of the data. The log likelihood function is written:

$$L(\beta_0, \beta_1) = Log(\ell(\beta_0, \beta_1)) = Log[\prod_{i=1}^{n} \pi(x_i)^{y_i}(1-\pi(x_i)^{1-y_i}]$$

$$= \sum_{i=1}^{n} y_i Log(\frac{\pi(x_i)}{1-\pi(x_i)}) + Log(1-\pi(x_i))$$

$$= \sum_{i=1}^{n} y_i(\beta_0 + \beta_1 x_i) - Log(1 + exp(\beta_0 + \beta_1 x_i)) \tag{7}$$

The estimators obtained by maximizing the maximum likelihood function are effective. These estimators can also be obtained by maximizing the log of likelihood because the maximum likelihood function and its logarithm peak at the same point.

If β > 0, this means that the probability of occurrence of the event increases with the corresponding variable;

If β < 0, this means that the probability of occurrence of the event decreases with the variable concerned.

To test the hypothesis on the determinants of financial inclusion, the econometric model (bivariate logit model) inspired by Fungáčová and Weill (2014), carried out in the context of China is formulated. The functional form of different models is given by:

$$Model 1: TCREDIT = f(income, age, sex, education)$$
$$Model 2: CFI = f(income, age, sex, education)$$
$$Model 3: CMM = f(income, age, sex, education)$$

From these previous forms, each model will have the form of a logit model given by the following relation: $FI_i = \frac{e^{\beta X}}{1+e^{\beta X}}$

With FI_i = financial inclusion which is the dependent variable of binary nature that can take the values « 1 » or « 0 »;

X = the matrix of the explanatory variables corresponding to each of the models;

β = matrix of the regression coefficients of each model.

Results and Discussion

Tables 1 and 2 below summarize the results of the determinants of financial inclusion for the periods 2011 and 2014. The chi-square values associated with the three indicators of financial inclusion show an overall significance at the 1% level with a pseudo R2 relatively low which means that

there are other independent variables that explain financial inclusion in Cameroon.

Table 1: Summary of logistic regression results for 2011

	TCREDIT		CFI		CMM	
	DEPENDANT VARIABLE : Financial inclusion
	Coef	Odds ratio	Coef	Odds ratio	Coef	Odds ratio
AGE	0.0258***	1.0261	0.0339***	1.0344	0.0071	1.0071
	(0.002)		(0.000)		(0.295)	
EDUC	-0.0264	0.9739	-0.3661*	0.6934	-0.6912***	0.5009
	(0.929)		(0.086)		(0.002)	
SEX	0.2087	1.2321	-0.2986	0.7418	-0.2548	0.7750
	(0.220)		(0.102)		(0.164)	
INCOME	-0.3262**	0.7216	0.4533***	1.5735	0.3561***	1.4278
	(0.029)		(0.000)		(0.000)	
CONSTANT	-3.7931***	0.0225	-3.530***	0.0292	-4.0797***	0.0169
	(0.000)		(0.000)		(0.002)	
	LR chi2(4) =17.25		LR chi2(4) = 86.88		LR chi2(4) = 53.32	
	Prob > chi2 = 0.0017		Prob > chi2 = 0.0000		Prob > chi2 = 0.0000	
	Pseudo R2 = 0.0363		Pseudo R2 = 0.0985		Pseudo R2 = 0.0628	
	Number of obs = 994		Number of obs = 998		Number of obs = 999	

Note: * significant at 10%, ** significant at 5% and *** significant at 1%; () Probability associated with the normal law statistic (P-value).

Source: Authors

Table 2: Summary of results of logistic regression models for 2014

	TCREDIT		CFI		CMM	
	DEPENDANT VARIABLE : Financial inclusion
	Coef	Odds ratio	Coef	Odds ratio	Coef	Odds ratio
AGE	0.0137*	1.0138	0.0424***	1.0433	-0.0322	0.9682
	(0.082)		(0.000)		(0.121)	
EDUC	-0.1346	0.8739	-1.1046***	0.3313	-0.7301	0.4818
	(0.615)		(0.000)		(0.176)	
SEX	0.2778	1.3202	0.3359*	1.3992	-0.2241	0.7991
	(0.246)		(0.098)		(0.596)	
INCOME	0.2495***	1.2834	0.7569***	2.1318	0.6339***	1.885
	(0.008)		(0.000)		(0.005)	
CONSTANT	-3.7255***	0.0240	-4.8144***	0.0081	-4.0797***	0.0169
	(0.000)		(0.000)		(0.002)	
	LR chi2(4) =14.86		LR chi2(4) =170.11		LR chi2(4) =22.89	
	Prob chi2=0.0050		Prob chi2=0.0000		Prob chi2=0.0001	
	Pseudo R²=0.0267		Pseudo R²=0.2073		Pseudo R²=0.1011	
	Number of obs=992		Number of obs =1000		Number of obs =1000	

Note: * significant at 10%, ** significant at 5% and *** significant at 1%; () Probability associated with the normal law statistic (P-value).

Source: Authors

From these results, it appears that the age variable positively and significantly influences the type of credit and the holding of an account in a financial institution in 2011 and 2014. This result could be justified by the fact

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that, as the age increases, more people like financial services. This result is consistent with those obtained by Nino-Zarazua and Copestake (2008) in Uganda, which show that individuals aged 25-44 are more likely to be financially included than those in other age groups. The value of the odds ratio is greater than unity (1.0433); which shows that there is a greater chance that an improvement in age will contribute to the development of financial inclusion. This variable is negative and not significant with the mobile account for both periods. It also returns via this result, that the use of a mobile account does not depend on age, but on other variables such as the area of residence and the proximity of financial institutions (Honohan and King, 2012).

Education does not significantly encourage access to credit and possession of a mobile account. This result is contrary to expectations and accommodates those of Nino-Zarazua and Copestake (2008). However, it determines negatively and significantly the holding of an account in a financial institution at the threshold of 10% and 1% between 2011 and 2014. This result could be justified by the fact that, beyond the educational level of credit applicants, the selection rather takes into account their professional qualification and their professional background. This prevails in Cameroon because many educated people do not exercise an activity that can provide the guarantee when borrowing. The level of unemployment is very high in Cameroon. (en et al. (2012); Beck et al. (2012)). However, the value of the odds ratio is low where the model is significant (0.3313) showing that education is unlikely to promote financial inclusion in Cameroon.

Regarding the gender variable, it positively and significantly determines the holding of an account in a financial institution at the 10% threshold in 2014. This positive sign confirms the results of Demirgüç-Kunt and Klapper (2013) who observed a high level of financial inclusion with the male gender and a low financial inclusion rate with the female gender. With a high odds ratio (1.3992), gender contributes to financial inclusion in Cameroon.

Income significantly promotes financial inclusion for both periods. This expected result confirms those obtained by Honohan and King (2012); Johnson and Nino-Zarazua (2011). Similarly, it is consistent with the findings of Demirgüç-Kunt and Klapper (2013) who found a positive relationship between income and financial inclusion. However, the negative sign regarding the type of credit obtained in 2011 is surprising and could nevertheless be justified by the lack of financial literacy according to Tuesta et al. (2015) in the case of Argentina. The positive role observed in 2014 on all variables shows that financial inclusion is at the service of the poor and destitute and plays its main role in including vulnerable layers in the system. It should be noted that, the odds ratios are very high for this year 2014. Indeed, the rise in

income doubles the number of chances of an individual to have a bank account or to have a mobile money account.

Conclusion

The objective of this paper is to identify the explanatory factors of financial inclusion in Cameroon between 2011 and 2014. The estimation method is the maximum likelihood method applied to a logistic regression model. The results show that age, sex, income and education level are the determinants of financial inclusion in Cameroon. However, education negatively affects financial inclusion in Cameroon given the large size of the informal sector. In view of these results, the following policy implications are drawn: financial institutions should encourage the development of mobile banking through withdrawal operations, payment of bills and travel tickets, cash transfers while remunerating deposits. By promoting financial inclusion, these measures would also contribute to the fight against corruption. Future research on this subject could focus on the relationship between financial inclusion and the stability of the financial system in the CEMAC zone.

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