The Effect of the Use of Solidarity Financing on Entrepreneurial Activities in the North West and South West Regions of Cameroon

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Abstract

This study was focused on investigating the effect of solidarity financing on entrepreneurial activities in the North West and South West regions of Cameroon. The mission of solidarity finance is to use non-conventional financial tools to achieve sustainable and equitable development beside social integration. Its implications are seen in entrepreneurial performance measured by increase business revenue, profit, sales and societal contribution. The paper examines if entrepreneurs who adopt solidarity financing performed better than those who do not use it in the Northwest and Southwest regions of Cameroon. To achieve the objectives of the study, data was collected through survey questionnaire from a sample of 330 respondents and was analyzed using two stage Heckman selection model in order to correct the selection bias and yield unbiased estimates. The results showed that socio-economic factors of accessibility, cultural ties, marital status, age, residence, qualification, development perception services had positive and statistically significant effects on entrepreneurial performance. The coefficient of the inverse Mills ratio from Heckman result was statistically significant at 5%. These results provide evidence that the unobserved factors which lead to an increased probability of usage of solidarity financing have a positive impact on entrepreneurial growth. The government should therefore design policies for the formalization of the solidarity financing market.

Keywords: solidarity, financing, entrepreneurial, accessibility, performance

1. Introduction

A self-sufficient society can be established when there exists a productivity revolution in areas of production in an economy. It is characterised by social and financial inclusion and the availability of basic needs within a strong economy. In this regard, entrepreneurs who are key players in economic development in the developing economies seek to increase output from their business efforts and as a consequence, fulfil the requirements of the local community, encourage savings and capital formation, contribute towards export promotion and import substitution, and ensure societal ethical value for social stability. Based on the TEA (Total Early-Stage Entrepreneurial Activity) GEM report of 2017, the percentage of people between the ages of 18-64-year-old that is either a nascent entrepreneur or owner of a business, is mostly found in the factor-driven economy made up of mostly developing countries. This compliments Bernazzani's (2017) revelations that Cameroon ranks the 4th with a13.8% of entrepreneurship per capita. although Kalyanasundaram (2018) reveals that 90 percent of all start-ups in developing economies fail to grow in the first five years. He advanced the following reasons: inability to identified market needs, wrong business team, too much competition, and pricing /cost issues, and above all insufficient finances. A successful startup will have sufficient revenue to cover its costs, but a failed startup will be unable to generate sufficient revenue likewise. It has cash flow problems and poor long-term prospects leading to the discontinuance of its operations. At the macro level, minimizing the failure rate will help both firms and entrepreneurs to succeed in their startup efforts. At the micro-level, identifying the causes of failure will help in establishing failure proof mechanisms, reducing the socio-economic cost of failure and the lessons learned will help future entrepreneurs to grow.

In developing economies, financial access to credit through formal financing methodology is problematic. Entrepreneurs in these economies lag behind in business performance relative to their developed economies

counterparts. Developing countries are passing through what Brinded (2015) considered as a commercial revolution. She explains that they faced common characteristics of inaccessibility to capital, low GDP, high unemployment rates, too many government regulations, and corruption. But what they have to their advantage is the solidarity network which is an intangible asset found among people with common economic and socio-cultural backgrounds. The need to finance the development and growth of entrepreneurial activities in Sub-Saharan African (SSA) economies has been of concern to many policy makers primarily in order to be able to compete effectively in the increasingly globalized environment. All micro and small enterprises have the desire to grow and transform into thresholds where they will be able to adopt efficient production techniques. As a consequence, sustainable income will be generated from entrepreneurial activities, thereby assuring employment and ultimately poverty reduction and economic prosperity. This is achievable once the needed finance is available for investment to propel growth and employment (Aryeetey and Urdy, 1995).

The wealth and prosperity of developing countries have been linked in modern times to the entrepreneurial nature of their economies. Entrepreneurial growth is considered as the organization of plans to achieve its objective to grow and expand the business by its quality, quantity, and turnover. This has a positive relation with innovation and competitiveness, and it may also play a role over time in economic growth and poverty alleviation. In addition, Spencer (2019) summarizes the six best indicators of business growth as demand, profit, revenue, sales, personnel, and market share, although authors like Sarwoko & Frisdiantara (2016) adds societal contribution as a key indicator of growth for developing economies. A major shift in the organization of developed economies has been taking place away from what has been characterized as the managed economy towards the entrepreneurial economy or what is called dynamic capitalism.

Inaccessibility to finance by entrepreneurs has perpetually remained a problem in Cameroon in particular and developing economies in general. This hinders the growth of entrepreneurial activities (Pedzinski and Odoemenam, 2012). The institutionalisation of Microfinance Institutions (MFIs) has not solved the problem because of its strong focus on short-term profitability through relatively high interest rates. The conventional financial system is not better either as it is mostly dedicated to an economy of exploitation for the wealthy, forgetting the vulnerable poor who have resorted to using informal financing in the form of solidarity financing (Bollier and Conaty, 2015).

This new financing alternative (solidarity financing) has come to stay. It is considered as a set of interdependent financial and social relationships, and partnerships between individuals and organizations, that mesh into an organised whole (Artis 2017), Historically, the evolution and development of these new financing alternative tools, the emergence of new financial institutions, intermediary' organizations, and the participation of numerous non-conventional financial institutions in financing entrepreneurial growth today have stemmed from the long history of mutual organizations, cooperative financial institutions, and the credit union movements that have served communities for several centuries. Historians regard the first modern example of the social economy to be the creation of the Rochdale Equitable Pioneers Society in the United Kingdom in 1844 which is considered as the first cooperative (Holyoake, 1872).

Moreover, in the last thirty –five years, popular solidarity financing institutions or association bond includes: labour solidarity funds, community-based finance and micro credit. Although the practices were never the best, they are part of the evolving or shifting social finance landscape in which solidarity finance is embedded today. (Chao-Beroff & Prébois, 2001) In Africa, credit unions are the key players in the social economy ecosystem. This confirms Onafowoka's (2012) assertion that they are pivotal in the delivery of financial services to the population at the base of the pyramid. These are generally excluded by mainstream financial institutions. Credit unions are what is most often seen in practice and were founded under Germany's Raiffeisen Association Bond Model. This model was built on the social justice doctrine of the Catholic Church, a concept of fair and just relations between the individual and society. In this bond model, small parishes and their people were in constant communication with each other through the central nexus of the local church. Similarly, the 'Caisse Populaires of Quebec were originally "organized along the boundaries of Roman Catholic parishes.

However, in Cameroon, the credit union is a long-existing form of solidarity financing and was founded under the German Raiffeisen association bond model. It was introduced in 1963 in Njinikom village of the then West Cameroon by a Dutch Catholic missionary, Reverend father Anthony Jansen who observed with keen interest the problems faced by his parishioners; that of very deplorable standards of living and informal money lenders charging outrageous interests. He noticed that his parishioners had some growth potentials: trustworthiness, moral and spiritual uprightness, and a strong communal lifestyle. He started with the 'St. Anthony Discussion Church Group' of 7 members where members could save as well as borrow for any entrepreneurial activity. Besides financial

enhancement, some of the principles were volunteerism, self-help, one member, one vote, consideration of a person's character as well as net worth.

The continuous growth of solidarity financing institutions as well as entrepreneurs particularly in the North West and South West regions warrant us in this study to investigate the impact of solidarity financing as an informal financing method in the growth and development of entrepreneurial activities in a developing economy like Cameroon.

The objective of the paper is to find out the effect of using solidarity financing for entrepreneurial growth in the North and South West regions of Cameroon.

The rest of the paper is organized as follows; the section on literature review makes an overview of the existing empirical literature on the implication of using solidarity financing as an alternative for entrepreneurial activities economy, while the section on methodology presents the estimation technique and describes the data used in the analyses. Section four presents and discusses the results obtained from the Probit regression and the Heckman probit model, while the last section presents the conclusion and policy implications of the study

2. Literature Review

Conceptually, solidarity finance can be considered as a coherent system integrating financial relationships between lenders and borrowers, and social interactions within a framework of support, trust, and solidarity. Solidarity finance refers specifically to invest in cooperative and not-for-profit enterprises, investing in community-based or micro-enterprises that serve local communities and provide opportunities for social and economic transformation (Coraggio, 2015). In the last thirty–five years popular solidarity financing institutions or association bonds includes labour solidarity funds, community-based finance, and microcredit. The mission of solidarity finance is to use alternative financial tools to achieve sustainable and equitable development. Its long-term vision is to increase social capital which is defined as the resources available in and through personal and business networks. These resources include information, ideas, leads, business opportunities, financial capital, power and influence, emotional support, even goodwill, trust, and cooperation. It involves numerous stakeholders, each of which has different methods and forms of behaviour, acting in different ways, but collectively producing an identity that is specific to solidarity finance. With regards to the skills, it consists of thinking globally, being able to assemble individuals and agents around the financial activity, and knowing the needs of both individual entrepreneurs and their communities, and considering the prevailing economic and social circumstances.

Solidarity finance is a function and a building block of microfinance and micro-lending, though less formal than the established organizations that have been around for decades. Solidarity finance beings with small groups of people who borrow collectively from microfinance sources and encourage one another to ensure repayment, which will then more likely lead to more funding. It is in essence a building block of the microfinance movement. The related concepts are microfinance, micro-lending, and crowdfunding.

Microfinance began as an attempt to address poverty as poor individuals and households could not secure formal loans and without loans could not accumulate assets for collateral, which is a starting point for formal lending. Microfinance is available worldwide but is generally focused on poorer populations of developing countries. In essence, it is an initiative to enable small businesses to thrive under circumstances where there is a lack of governmental or other systematic access to entrepreneurial funding. In a sense, it is peer-to-peer lending where an individual or an organization, often with an interest in a particular business or industry, will donate or lend to a recipient of their choice.

Microlending refers to the issuance of relatively small, uncollateralized loans to individuals for the purpose of spurring entrepreneurial growth (Batitiliana & Dorado, 2010). The general perception is that when we refer to microcredit is that it includes employed individuals who want to start a new business, other entrepreneurs, or small business owners who do not have access to brick and mortar established banks who require a history of revenue. This includes loans, insurance, and other financial services, while microloans are more relevant to startup businesses.

The idea and practice of microlending have been around in many cultures for centuries, but the formal practice is considered to date back to the 1970s. Specifically, Professor Muhammed Yunus founded Grameen Bank in Bangladesh. Muhammed Yunus is a recipient of the Nobles Peace prize in 2006. It began as a community based anti-poverty campaign, predominantly targeted at women who stood in opposition to the belief that the world's poor were incapable of supporting credit (cull et al, 2009)

The first focus was on small loans to women in developing countries who had entrepreneurial ventures, such as making clothes and providing food, but did not have the means or access to traditional banking. Simply, it is informal lending that generally relies on the cohesive social structure of a village. The repayment rate is very high

due to the cohesiveness. In essence, it is a private initiative to enable small businesses to thrive under circumstances where there is a lack of governmental or other systematic access to entrepreneurial funding. In a sense, it is peer-to-peer lending where an individual or an organization, often with an interest in a particular business or industry, will donate or lend to a recipient of their choice. Generally, these are loans with an interest rate, though the incentive to participate is often more out of an interest to see a business thrive. Today, Microfinance institutions (MFI) range from non-profit institutions to profit-seeking establishments such as banks. Also Crowdfunding is when individuals, families, or businesses contribute small amounts of money to a business of their choice, in a country of their choice, informally or through nonprofit organizations.

However, the literature of solidarity economy, social and solidarity finance includes a large diversity of forms of finance, ranging from formal experiences, such as established cooperatives banks, to informal and small initiatives, such as rotating saving and credit associations (ROSCAs), (Utting, 2014). Traditionally, and in a broader sense, solidarity finance (SF) encompasses social and ethical banking, financial cooperatives, including the credit union movement, cooperative banks, and building societies, community development banks; solidarity microfinance; complementary currencies; community-based savings schemes such as ROSCAs, savings and credit cooperatives (SACCOs) and village banking. More recently, new forms of SF appeared including participatory budgeting, labour solidarity funds, social economy financial intermediaries, micro credit-equity debt instruments, crowdfunding, and (arguably) cryptocurrencies, social impact bonds, and impact investing (Mendell, 2013). Solidarity finance in our context here refers to the shared social commonalities of persons who have constituted themselves into a group in order to access capital or source for money which they themselves have raised from the accumulation of their savings.

Theoretically, solidarity financing is founded on Ostrom's (1990) Common pool theory where individual preferences provide the logic supporting commons projects with the assumption that rational actors, influenced by constraints of resource institutions (enforced rules), will make calculated decisions based on their own best interest like entrepreneurial growth. The group members constitute a pool of funds and lend out to individual members to start or improve their businesses. The vision of solidarity finance should be to increase the capacity of social capital. It should be a financing system that increases the capacity of a particular group of people to cooperate and to act together in order to tackle the problem of exclusion from the existing traditional banking system and to achieve sustainable and equitable growth. Solidarity finance works within an environment of poverty, of exclusion and hardship, and lack of access to financial services. It is distinguished from microcredit in that it has a collective goal and not individual whereas microcredit is based on the concept of scale ‘micro’ and not of quality ‘solidarity’

Empirically reviewing financing and business growth relationship, Berner, et al (2008) indicated from their studies that not all firms grow as wished; microenterprises and small firms are contained within sustainability and are not progressing toward profitability, productivity, income, and employment generation, but (Reeg 2013), on his part, averred that microenterprises in developing countries are stagnating. The barriers to growth faced by micro and small enterprises are at the center of discussions among scholars. Notably, empirical studies have identified access to finance as one of the many factors constraining the growth of microenterprises and small firms (Aldaba, 2011; Prohorovs & Beizitere, 2015). Further, the insufficiency of capital is believed to be the primary factor preventing microenterprises and small firms from reaching their full potential. (Fowowe, 2017)

Ayyagari et al. (2008) in finding out the role business financing has on the growth of businesses argue that the growth of the business has a direct relationship with the business financing environment. To them, the obstacles to growth include inefficient functioning of financial markets, inadequate security and enforcement of property rights, poor provision of infrastructure, inefficient regulation and taxation, and broader governance features such as corruption and macroeconomic stability. Using firm-level survey data on the relative importance of different features of the business environment, the article finds that although firms report many obstacles to growth, not all the obstacles are equally constraining. Some affect firm growth only indirectly through their influence on other obstacles, or not at all. Analyses using directed acyclic graph methodology and regressions find that only obstacles related to finance, crime, and policy instability directly affect firm growth. The finance result is shown to be the most robust. The results have important implications for the priority of reforms. Maintaining policy stability, keeping crime under control, and undertaking financial sector reforms to relax financing constraints are likely to be the most effective routes to promote firm growth. (Ayyagari et al., 2008)

In like manner, Beck et al. (2015) in examining the finance–growth nexus for microenterprises in China and using a survey dataset of Chinese rural households concluded that there is a positive relationship between financing and entrepreneurship. Informal finance is positively related to the growth of firms with employees. Although they argue

that informal finance is irrelevant for the growth of self-employed microenterprises, and equally to them there was no significant relationship between the use of formal finance and firm growth. Access to external finance is positively associated with the decision to become an entrepreneur and the initial investment for microenterprises. The findings underline the importance of finance for entrepreneurship and microenterprise growth and the role of informal finance in the absence of efficient formal financial institutions.

Donou-Adonsou, & Sylwester (2017) writing on the Growth effect of banks and microfinance with evidence from developing countries and using a panel of 85 developing countries over the period 2002–2013 and the system-GMM estimator compare lending from microcredit institutions to that from traditional banks and examine their respective effects upon economic growth, found out that microcredit loans have a positive relationship with the growth of businesses. They did not find strong evidence that bank loans raise growth. There is, however, some evidence that bank loans do increase investment, whereas microfinance loans do not appear to do so. These results suggest that microfinance loans are not primarily invested as physical capital, but could still augment total factor productivity, whereas banks may have been financing non-productive investments.

Cole & Sokolyk (2018) assert that the relationship between debt financing and business growth from a vantage point considers the totality of private and public debt. They exploited quarter-long timing lags inherent in the response of borrowing to innovations in output to identify the effects of debt on growth in a panel vector autoregressive model. They verify that debt accumulation is negatively related to output growth, with a one standard deviation innovation in the former, leading to a 0.2 percentage-point contraction in the latter. This result is robust to the inclusion of exogenous variables in the system, alternative measures of the endogenous variables, and varying temporal treatments. He also found variations depending on the type of debt accumulated, the specific subset of countries considered, and the channels along which debt expansion operates.

Yapa et al. (2019) compare how the debt capital of the listed companies operating in the wholesale and retail sectors of South Africa and Sri Lanka affect their financial performance. They sought to find out whether debt capital affects the financial performance of the wholesale and retail sector companies in South Africa and Sri Lanka, both developing economies. The fixed-effects (within) regression model was used and findings from the study confirm that debt financing, in terms of short-term debt and long-term debt, has a negative impact on the financial performance of wholesale and retail sector companies in the context of South Africa. In Sri Lanka, debt financing, in terms of short-term debt, has a negative impact on firm performance, while long-term debt has a positive impact. This study gives special focus to which industries of the different components of the capital structure have a significant impact or weak-to-no impact on firm performances. This suggests that the South African wholesale and retail sector can use equity capital and retained earnings efficiently, thereby minimizing conflicts of agency or agency costs and remaining independent of external financiers. In the case of Sri Lanka, the owners and managers of the retail companies should consider reducing the use of short-term debt and increase long-term debt capital as a long-term debt seems to influence their financial performances positively.

Moreover, small and medium-scale enterprises, as well as micro-enterprises, are considered important in both developed and developing countries. They produce goods and services which help to increase economic growth and contribute significantly to employment creation. Although they play a crucial role in economic growth and employment, their operations are often crippled by a lack of adequate financing from financial institutions. Hlupeko (2013) sought to find out this assertion, with the aim of investigating the impact of debt financing on the operations of SMEs in Masvingo. Both qualitative and quantitative research designs were used in the study. The study used a sample of 80 SMEs. Primary data was collected by means of a survey. Secondary data from SME records were used in the study. The results from the study showed that debt finance had a positive impact on the productivity of SMEs. The study also established that firms that received adequate funding from banks improved their productivity.

Another revelation of the study was that the cost of borrowing was too high to enable firms to borrow adequate amounts of required finance investment. It, therefore, concluded that a reasonable level of debt in the capital structure of the SMEs helped to improve their productivity. The study, therefore, recommends that financial institutions offer long-term debt to SMEs to enable them to invest in capital equipment to increase productivity in the future. The study also recommends the lowering of interest rates to motivate SMEs to acquire enough funds to invest in capital equipment.

From the foregoing paragraphs on the relationship between financing and business growth, it can be observed that there is a gap critically created in financing microenterprises of business or activities of entrepreneurs. All of the empirical studies reviewed surveyed more of financing by microfinance and banks leaving out a bulk of the vulnerable poor population who cannot afford physical collateral, the social capital of solidarity. This forms the basis

of our argument for the existence of solidarity financing as microfinance that was meant to cater to the vulnerable poor is beginning to lose ground. Impact assessments have shown that most MFIs fail to reach their target population. They have failed to take social ties into consideration for political, institutional, and cultural reasons. MFIs are part of a dominant liberal system in which economic issues take precedence over social ones. As part of this same scheme, lenders tend to impose short-term profitability targets, which result in the MFIs focusing on financial objectives to the detriment of social goals. To salvage this drawback solidarity financing schemes are being designed to cater for the goals of the social alongside financial goals.

3. Methodology

3.1 Data Description

The study was carried out in the North West and South West Regions of Cameroon because they have some cultural and linguistic peculiarities in the operations of micro and solidarity financing. In addition, they have common characteristics in the cultural and solidarity domains. It also has a high proportion of micro, small and medium-sized enterprises that breeds entrepreneurship. The data for the study was primarily collected using questionnaires from a sample of 330 entrepreneurs selected using stratified random sampling techniques. This technique was adopted because; the entrepreneurs were selected from smallholding farmers, petty traders, public transporters (Taximen, commercial bike riders and bus drivers), sawmills operators, and automobile mechanics. It was necessary to have a representation of each domain in the sample. A simple random sample was then taken from each group according to its population. We then Pool the subsets together to form a random sample of a total size of 330 micro-entrepreneurs from the total micro-entrepreneur population of 22,134 in the two regions (MINPMEESA 2018).

3.2 Empirical Model

3.2.1 Estimation of Probit Model (First Sage Selection Model)

The Binary Probit Model was used to assess the socio-economic factors influencing the usage or adoption of solidarity financing by entrepreneurs in the North West and Southwest Regions. To assess the factors influencing the usage of solidarity financing, the dependent variable was defined as a simple dichotomous variable (Y), which is a dummy equal to 1 if the respondent participates and adopts solidarity financing and 0, if otherwise. This situation does not allow for the employment of classical regression techniques like the Ordinary Least Squares (OLS), without estimation and interpretation problems (Maddala, 1983). Therefore, a binary model procedure relies on normal distribution assumptions, (Imelda et al., 2019). The binary Probit model emerges from the normal cumulative distribution function (CDF) and it is presented based on a rational choice perspective on behavior. This binary variable is assumed to be a proxy for a true underlying continuous normal distribution.

The probit model procedure assumes that there is an unobservable (latent) underlying response variable y* and that this variable can be determined by the regression relationship:

$$y^* = \beta Xi + \mu i \quad (1)$$

Where Xi is the vector of explanatory (independent variables), β is the vector of parameters, and μi is the error term subject to the usual statistical assumptions. Thus, what is observable in lieu of the underlying response variable is the dummy variable defined by y=1 if y>0, y=0 otherwise, This leads to the Probit equation:

$$Prob(Y=1) = F(\beta X) \quad (2)$$

where F is the cumulative distribution for μi. The explanatory variables were gender, age, marital status, education level, income, availability, accessibility, cost, cultural ties and regulations, personalized services, and developmental project. The unexplained variable was the usage of solidarity financing for entrepreneurial performance. The main hypothesis was that all the explanatory factors foster the usage or adoption of solidarity financing.

However, a binary probit regression technique examines the socio-economic factors influencing the usage of solidarity financing for entrepreneurial growth. This technique is employed to find the model which would best fit in describing the relationship between the characteristics of solidarity financing and those of entrepreneurial growth as the independent and dependent variables respectively. Binary Probit regression has been recognized as a new approach in obtaining more precise estimates on the level of adoption in social and management sciences (Adeogun et al., 2008).

The binary probit model assumes a normal cumulative distribution of the probability of an event; it tests for the presence or absence of an event and tries to describe, explain, and predict choices between two or more discrete alternatives. The variables included in the model for usage of solidarity financing are specified in the equation below:

$$Yi = \beta 0 + \beta 1 Availi + \beta 2 Acessi + \beta 3\ CulTi + \beta 4 Agei + \beta 5 Costi + \beta 6 PerSi + \beta 7 Inci + \beta 8 Edui + \beta 9 Residi + \beta 10 DevPi + \beta 11\ RegLi + \beta 12\ Geni + \mu i \quad (3)$$

The definition of the variables used in the estimation and their expected sign is presented in Table A1, while the summary statistics of the variables are presented in Table A2 in the Appendix. The summary statistics indicate that 82.6% of the entrepreneurs included in the study adopted solidarity finance

3.2.2 Estimation of Heckman Model (Second Stage Outcome Model)

The effect of the usage of solidarity financing on entrepreneurial performance were analyzed using the econometric Heckman selection bias model as used by Dai (2017) in the analysis of Guaranteed Income Supplement (GIS) benefit. The Heckman estimation procedure simultaneously estimates the regression coefficients associated with the covariates and explains the selection and outcome processes and the value of the correlation coefficient associated with the relationship between the error terms. For the Heckman method to work well, there must be sets of explanatory variables associated with both selection (First Stage) and outcome (Second Stage), and optimally there should be one or more variables (the 'selection' variables) that only appear in the selection relationship. These selection variables should not affect the outcome. This yields two equations, one for selection that includes the selection variables, and one for the outcome: the 'selection' and 'outcome' equations. That is, there is one model predicting the choice of solidarity financing and the other model predicting the effects of solidarity finance on entrepreneurial growth.

In estimating the effects of the various factors on the growth of entrepreneurs, a multiple linear regression model for entrepreneurial growth is estimated in the second step after the probit in the first step. The simplified form of the equation can be specified as:

$$Yi = Xi'\beta + \varepsilon i \quad (4)$$

Where Yi is the volume of entrepreneurial performance, Xi represents a vector of explanatory variables and εi is an error term that is assumed to be independently and identically normally distributed with a zero mean.

A potential problem with the OLS estimation of this equation is that the level of entrepreneurial growth depends on whether or not entrepreneurs meet the requirements for growth which is using or not using solidarity financing, which means that the entrepreneurial growth is not a censored random variable because the dependent is known. Many individual entrepreneurs do not use or adopt solidarity financing to ensure growth. Thus, the assumption that the dependent variable is normally distributed is violated. Furthermore, if equation (4) is estimated using only the observations for which $Yi \neq 0$, the parameter estimates will be biased. To see this, let the equation that determines whether an individual entrepreneur uses solidarity financing be given as:

$$Zi = Wi'\Upsilon + ui \quad (5)$$

where Zi is an unobservable index of eligibility for entrepreneurial growth, Wi is a vector of entrepreneurs' characteristics, and the random error ui is assumed to have a standard normal distribution. If $Zi > 0$, individual i have the opportunity to use solidarity financing. Then, the sample selection rule is that Yi is observed only when Zi is greater than zero. The expected entrepreneurial performance, given that the individual has the opportunity to use solidarity financing, is thus:

$$[Yi \mid Zi > 0] = Xi\ \beta + \beta\lambda\ \lambda i\ (Wi'\ \Upsilon) \quad (6)$$

where $\lambda i\ (Wi\ \Upsilon)$ is the inverse Mills ratio.

Thus, the expected value of Yi is equal to Xi′β plus an additional term $\beta\lambda\ \lambda i\ (Wi'\ \Upsilon)$, Therefore, the OLS estimation of equation (4), which excludes the additional term, would lead to biased and inconsistent estimates of β (unless $\beta\lambda = 0$). Due to this selection bias, estimates of equation (4) cannot be used to forecast outcomes for all entrepreneurs.

In order to correct for this sample selection bias, and to ensure that estimators account for sample selectivity and the presence of endogenous covariates as provided by Wooldridge (2008), the Heckman two-step estimator will be used. The Heckman estimator improves the estimates of the parameters, relative to the OLS estimation of equation (2) by allowing us to use all the observations to estimate a probit model of the probability that solidarity finance is chosen in the first step. The inverse Mills ratio for each observation, $\lambda i = \varphi (wi\gamma)/ \Phi (wi\gamma)$, will then be calculated. Lastly, using only the entrepreneurial growth from SF users' subsample in the second step, an OLS regression is estimated in which the volume of entrepreneurial growth is the dependent variable, and xi and the inverse Mills ratio λi are the explanatory variables.

In specifying the stage two of the Heckman using the OLS estimators as:

$$Yi \mid Zi > 0 = [Yi \mid Zi > 0] + U = Xi\ \beta + \beta\lambda\ \lambda i\ (Wi'\ \Upsilon) + \nu i \quad (7)$$

Where νi is a new error term that is homoscedastic. Given that the inverse Mills ratio is included as an additional explanatory variable, the sample selection bias is corrected. This procedure will give consistent estimates of the parameter vector β. The estimators from this two-step procedure are consistent and asymptotically normal.

According to Cameron and Trivedi (2005), the parameters of this two-equation sample selection model are identified even in the case where xi = wi. However, in practice, they may not be, due to multicollinearity between the inverse Mills ratio and the other explanatory variables, if xi = wi. To avoid this problem, the empirical analysis will exclude from xi some of the variables that are included in wi.

To test for selectivity bias, the estimates of βλ are examined. If we cannot reject the null hypothesis that βλ = 0, then sample selection does not result in significant bias, and so applying OLS to the outcome equation based on the selected sample without including the inverse Mills ratio is appropriate. Otherwise, sample selection causes significant bias, and the inverse Mills ratio should be included when the entrepreneurial growth model is estimated.

4. Presentation and Interpretation of Result

4.1 Presentation of Result

The first stage probit results showing the likelihood of adopting solidarity finance by Entrepreneurs are presented in Table A3.

4.2 Interpretation of Results

From the regression result above, the availability of solidarity finance has a positive effect on the performance of entrepreneurship. This means that an increase in the availability of solidarity finance will increase the performance of entrepreneurs. The quantitative result shows that an increase in availability by 1 point will increase the performance of entrepreneurs by 0.103837 frs. This positive effect is however statistically insignificant as was the case for the choice of solidarity finance.

Accessibility of solidarity finance has a positive and statistically significant effect on the performance of entrepreneurship. This result shows that an increase in accessibility will result in an increase in the performance of entrepreneurs. The result quantitatively shows that, if accessibility increases by one point, the performance of entrepreneurs will increase by 0.1483199 Frs. This effect is statistically significant at the 10 percent level of significance; thus, accessibility is an important variable which influences entrepreneurship performance.

In like manner, cultural ties of individuals using SF schemes or institutions have a positive effect on the likelihood of entrepreneurial performance with a coefficient of 0.29567 and an at-statistical value of 2.27. This means that an increase in members' cultural ties with the financial institution or solidarity schemes increases the likelihood of entrepreneurial performance. Precisely, if the cultural ties of using SF increase by 1 point, there is the likelihood of increasing entrepreneurial performance by 29.56 percent. This effect is statistically significant at the 5 percent level of significance. Thus, the cultural tie is an instrumental variable for entrepreneurial growth.

The cost of finance from using solidarity finance has a negative but statistically significant effect on entrepreneurial performance. This result shows that an increase in the cost of finance of SF will result in a decrease in the performance of entrepreneurs. The result quantitatively shows that, if the cost of finance increases by one point, entrepreneurial performance will decrease by -0.2586 Frs. This effect is statistically significant at the 5 percent level of significance, giving evidence that the cost of finance is an important variable that influences the entrepreneurial performance

In like manner, government regulations of SF have a negative effect on the level of entrepreneurial performance with a coefficient of -0.0893. This negative coefficient indicates that an increase in government regulatory tools like taxes for instance, on SF institutions, will decrease the performance of entrepreneurs. This effect is statistically insignificant like the case of choosing SF

Marital status (married = 1 if married and 0 if single) has a positive coefficient indicating that married individuals performed better than single entrepreneurs. The coefficient of 0.3507 shows that married individuals who chose SF performed better than their single counterparts. The quantitative result indicates that entrepreneurs who are married perform 035 points more than singles. This is statistically significant at the 5 percent level of significance, indicating that marital status is an important variable in determining entrepreneurial performance. This probably is the case, since married entrepreneurs are more committed than single entrepreneurs who have little or no responsibility.

The variable sex (male =1 and female =0) has a positive coefficient of 0.1173. This indicates that males performed better as entrepreneurs than females. Precisely, a male entrepreneur earns 11.73 Frs more than a women entrepreneur. However, this difference in performance is statistically insignificant at the 10 percent level of significance.

The income of entrepreneurs using SF has a positive effect on entrepreneurial performance. The result shows a coefficient of 0.1467 and a t-statistical value of 1.99. This indicates that the effect is statistically significant at a 5 percent level of significance. Precisely, this means that an increase in the income of individuals will result in an increase in their business performance. The result quantitatively shows that if income increases by 1Frs, the performance of entrepreneurs will equally increase by 0.1467 Frs. Therefore, the income of entrepreneurs using SF finance is an important variable that influences the entrepreneurial performance

The age of an individual has a negative coefficient of -0.0624 and a t-statistical value of -0.62. This indicates that an increase in the age of an entrepreneur will decrease the performance of the entrepreneur. The effect is statistically insignificant at the 10 percent level of significance.

The residence of the individual has a positive effect on entrepreneurial performance. This result indicates that individuals living in the rural areas performed better than their counterpart residents in urban areas. The result is statistically insignificant indicating, that on average there is no difference in the performance of entrepreneurs living in rural and urban areas.

In terms of the educational level, using the postgraduate level as the base group, the results show that holders of secondary school (O/L) performed lower than postgraduates though it is statistically insignificant. On the contrary, holders of A/L certificates have a positive coefficient of 0.4314, indicating that holders of A/L performed better than postgraduates. This difference in performance is statistically significant at the 10 percent level of significance. Graduates (BSc) performed worse than postgraduates who are entrepreneurs. This has an effect on entrepreneurial performance, though this difference is not statistically significant. The results for educational level show that A/L holders who are entrepreneurs performed better than the other levels of education.

Entrepreneurs who are development-oriented have a positive coefficient of 0.3691. This means that a point increase in development orientation will increase the entrepreneurial performance by 0.3691 Frs. This effect is statistically significant at the 1 percent level of significance, indicating the orientation of the individual is very important in influencing entrepreneurial performance.

The results for the estimation including the inverse Mills ratio are presented in column two of Table A4 The coefficient of the inverse Mills ratio of 0.6897748 is positive and has a t-statistical value of 2.0, indicating that it is statistically significant at 5%. This suggests that the error terms in the selection and primary equations are positively correlated (since the coefficient on lambda = ρeuσu). Thus (unobserved) factors that make of solidarity finance more likely tend to be associated with higher performance of entrepreneurship. This indicates that selection bias exists. These results provide evidence that the unobserved factors which lead to an increased probability of usage of solidarity financing also have a positive impact on entrepreneurial growth. Thus, the application of standard regression techniques such as OLS to the outcome equation without including the inverse Mills ratio variable would yield biased results since they would not account for the censoring of the sample. More specifically, in the model, unobservable influences are positively related to the probability of using SF but are negatively related to the level of entrepreneurial growth. Thus, the unobserved factor or instrumental variable like personalized services in the impact equation that make the option of solidarity finance more likely tend to be associated with higher performance of entrepreneurship.

In comparing the two OLS results, it can be observed that the estimated coefficient on availability, accessibility, cultural ties, regulation, cost, sex, marital status, residence, income, age, secondary school, high school, graduate, and developmental projects are larger than before, indicating that selection is biasing up the entrepreneurial performance to availability, accessibility, cultural ties, regulation, cost, sex, marital status, residence, income, age, secondary school, high school, graduate, and developmental projects. This suggests that the selection bias did indeed distort the estimated relationship between usage of SF and improvement in entrepreneurial performance.

Also, it is noticed that the significant levels and the signs of the coefficients in the OLS equation and the associated effects in the corrected model sometimes differ. For instance, in developmental projects, the OLS coefficient is significant at a 5 percent level while in the corrected model with IMR it is significant at 1 percent levels of significance. This continues to signify the biasing nature that existed before. The result, therefore, shows the presence of a selection bias, thus the need for the Heckman estimation technique.

Other results from table A4 show that the global fit of the model using the F-test is statistically significant for both models. This shows that the independent variables included in the estimation model are capable of explaining the dependent variable (entrepreneurial performance). In terms of the measure of the goodness-of-fit using the coefficient of determination based on the Adjusted R-Square, the result gives a coefficient of 11.2 percent and 11.6 percent respectively, for the model without and with the IMR. This means that the variation in entrepreneurial performance is explained by 11.2 percent and 11.6 percent respectively when the IMR is not included and when it is included.

The results in Table A4 were further validated using the Variance Inflation Factor (VIF) test for multicollinearity, the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity, and the Jarque-Bera normality test. From the results, it is observed that in terms of VIF, all the VIFs are less than 5.0, indicating that multicollinearity is not a problem among the independent variables included in the estimation. The result for the test of homoskedasticity fails to reject the null hypothesis of constant variance, thus the residual has a constant variance. In terms of the normality test, the result is based on the Jarque Bera test.

5. Conclusion and Policy Recommendation

In investigating the effects of usage of SF on entrepreneurial growth and going by the null hypothesis that there is no effect from using SF on EP, we tend to reject the hypothesis and accept the alternative that there exists a positive effect or implications in using solidarity financing. There was the presence of a selection bias, this is where those who use solidarity financing performed relatively better than those who do not. This is the effect seen in the growth of profit, return on assets, liquidity, income, employment generation, and investment acting as indicative variables.

In justifying the result using the Heckman selection test, there was a positive and significant relationship for some factors: accessibility, culture, cost, regulation, personalized services, developmental projects, and age for both primary and selection equations. The result shows that the performance of entrepreneurs is not only a function of solidarity finance but that other sources of finance like formal financing could be used for business growth; i.e, entrepreneurs participating in SF performed as well as those who do not participate, thus there will be bias if we only consider those who participate. This is in line with the works of Imelda et al (2019). The dream of all business people is to grow larger in size and it can be achieved with capital resources from any source considered good enough for growth and not necessarily SF. There are entrepreneurs who prefer to borrow high amounts from banks with associated high costs. According to the finance concept of risks, and returns, the higher the risk the higher the returns propels entrepreneurs to perform well than accessing microloans from SF which may not be large enough for their business growth.

Any successful solidarity financing efforts meant to mobilize and manage savings among the poor and improve their business status should focus on the age of the members, the less educated and females, especially those who are not household heads, and the members of small household sizes, and youth groups because they yet to be too committed with other non-business issues.

Cost of financing becomes one of the factors that hinder entrepreneurial growth; taxation on their businesses, the interest rate on loans and credit especially from modern forms of SF. As a result, it should be treated with care. Elements that constitute the cost of financings like taxes on fund generation and entrepreneurial activities should be reduced.

Equally cost of finance is affected by mark-up rates on business activities which in this case should be relatively low. The goal of solidarity financing should be to satisfy the members in form of credit allocation and not profit-making, so the mark-up rate used should be that with which to sustain only administrative expenditure.

The government should oversee the functioning of all economic activities inclusive of the informal financial sector in order to achieve macroeconomic growth. As a result, there should be policies for the growth and development of the informal money market. The government should supervise the sector in order to fight the ills of credit risk, financial unsustainability, and continuity of operations after the death of key persons

The lack of managerial expertise and low or inadequate vocational and professional training centres is a major problem. This inhibits the growth development of small businesses in most underdeveloped and emerging economies. It is recommended that the government should encourage entrepreneurs to acquire professional business management and bookkeeping skills by creating vocational centres to trained them.

6. Limitations of the Studies

The population of the study was about 3.5million, but it was not possible to get a required sample size because of the socio-political insecurity being experience among the targeted population of northwest and south west regions of Cameroon. However, we resorted to using an insufficient numbers, but we made sure all the five categories were within each strata. The targeted population made up of both micro, small and medium sized enterprises could not be distinguished within the strata chosen. Entrepreneurs of all categories were treated the same whereas each has its peculiarity in sourcing for capital for the respective ventures making it difficult for comparative effect of the use of solidarity financing.

The study was limited to only traditional techniques of network financing alternatives whereas there are modern financing alternatives that have the same underlying theories like solidarity financing that entrepreneurs adopts which go beyond African culture of solidarity.

7. Recommendations for Further Studies

This studies make recommendations for further studies in the following related areas in solidarity financing:

Comparative Performance of Small Businesses in African Solidarity Frameworks

Relationship of Trust and Civic norms in Small Business Financing in Sub-Saharan Africa

Alternative financing innovations and performance of small and medium sized Enterprises in Cameroon

Common Pool Resource Management: Lessons and constraints for Financial resources Pool Management in the grassland areas of Cameroon

A Comparative Studies of Traditional and Modern Financing approaches in the Northwest and Southwest regions of Cameroon

References

Adeogun, O., Ajana, A. A., Ayinla, O., & Adeogun, M. (2008). *Application of logit model in adoption decision: a study of hybrid clarias*. Lagos: Lagos State Press.

Artis, A. (2017). Social and solidarity finance: A conceptual approach. *Research in International Business and Finance, 39*, 737-749. https://doi.org/10.1016/j.ribaf.2015.11.011

Aryeetey, E., & Udry, C. (1995). *The characteristics of informal financial markets in Africa*. Nairobi: Nairobi Press.

Bahri-Domon, J. (2016). Cameron financial sector. Retrieved 6th November 2018, from https://www.businessincameroon.com/pdf/BC45.pdf

Battilana J., & Dorato, S. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal*, *53*(6), 1419-1440. https://doi.org/10.5465/amj.2010.57318391

Bernazzani, S. (2017). 46 *Facts every entrepreneur needs to know about* (Inforgraphics). Retrieved 18th May 2019, from https://www.bloggingpro.com/archives/2017/01/30/entrepreneurship-statistics-infographic

Berner, E., Gomez, G. M., & Knorringa, P. (2008). Helping a large number of people become a little less poor: the logic of survival entrepreneurs. *UNU WIDER project workshop on entrepreneurship and economic development, Helsinki*, *13*, 21-23.

Bollier, D. (2016). Commoning as a transformative social paradigm. *The Next System Project*, *28*(2), 12-35.

Bollier, D., & Conaty, P. (2015). Democratic money and capital for the commons: strategies for transforming neoliberal finance through commons-based alternatives. *Heinrich Böll Foundation, 15*(2), 4-16.

Brinded, L. (2015). *World most entrepreneurs, business insider*. Retrieved 10th May 2019, from http//businessinsider.com

Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: Methods and applications*. London: Cambridge University Press. https://doi.org/10.1017/CBO9780511811241

Chao-Beroff, R., & Prédbois, A. (2001). Solidarity finance. *Proposals paper for the 21st century*. Fondation charles léopold mayer pour le progrès de l'Homme, alliance for a responsible, plural, and united world, solidarity socio economy, working group. Retrieved 6th November 2018, from http://www.alliance21.org/en/proposals/finals/final_finsol_en.pdf

Cole, R. A., & Sokolyk, T. (2018). Debt financing, survival, and growth of start-up firms. *Journal of Corporate Finance*, *50*, 609-625. https://doi.org/10.1016/j.jcorpfin.2017.10.013

Coraggio, J., Eynaud, P., Ferrarini, A., de Franca Filho, G. C., Gaiger, L. I., Hillenkamp, I., ... Wanderley, F. (2015). 14 The theory of social enterprise and pluralism. *Civil society, the third sector and social enterprise: Governance and democracy*, 234. https://doi.org/10.4324/9781315795317-25

Cull, R. A., Demirguc-Kunt, & Morduch, J. (2009). Microfinance meets the market. *Journal of Economic Perspectives, 23*(1), 167-192. https://doi.org/10.1257/jep.23.1.167

Donou-Adonsou, F., & Sylwester, K. (2017). Growth effect of banks and microfinance: evidence from developing countries. *The Quarterly Review of Economics and Finance, 64*(2), 44-56. https://doi.org/10.1016/j.qref.2016.11.001

Fowowe, B. (2017). Access to finance and firm performance: evidence from African countries. *Review of Development Finance, 7*(1), 6-17. https://doi.org/10.1016/j.rdf.2017.01.006

Hlupeko, D. (2013). The impact of debt financing on productivity of small and medium scale enterprises: A Case study of SMEs in Masvingo urban. *International Journal of Economics, Business and Finance, 1*(10), 371-381.

Imelda, T., Angeles, M., Socorro, P., Calara, A. B., & Guzman, D. (2019). The mediating effect of microfinancing on access to finance and growth of microenterprises: evidence from the Philippines. *Journal of Global Entrepreneurship Research, 9*(1), 34-56. https://doi.org/10.1186/s40497-019-0150-x

Kalyanasundaram, G. (2018). Why do startups fail? A Case study based empirical analysis in Bangalore. *Asian Journal of Innovation & Policy, 7*(1), 3-28.

Maddala, G. S. (1983). *Limited-dependent and qualitative variables in econometrics*. London: New York Press. https://doi.org/10.1017/CBO9780511810176

Mendell, M., & Nogales, R. (2008). *Social enterprises in OECD Member Countries: What are the financial streams?*. Retrieved 10th May 2019, from http://fsdmoc.com/1o-things-to-know-about-access-to-finance-by-women/

Pedzinski, A., & Odoemenam, F. (2012). The role of informal microfinance and cooperatives in poverty alleviation and economic development. *Cooperative Finance in Developing Economies, 12*, 40-53.

Prohorovs, A., & Beizitere, I. (2015). Trends, sources and amounts of financing for micro-enterprises in Latvia. *Procedia-Social and Behavioral Sciences, 213*(66), 404-410. https://doi.org/10.1016/j.sbspro.2015.11.558

Reeg, C. (2013). *Micro, small and medium enterprise upgrading in India - learning from success cases.* German: Development Institute Press.

Sarwoko, E., & Frisdiantara, C. (2016). Growth determinants of small medium enterprises (SMEs). *Universal Journal of Management, 4*(1), 5-19. https://doi.org/10.13189/ujm.2016.040105

Spencer, M. (2019). Small Business Growth Strategies: 6 Ways to Grow and Measure Grow. Retrieved 18th May 2019, from https://www.fundera.com/blog/business-growth-strategies

Wooldridge, J. M. (2008). *Instrumental variables estimation of the average treatment effect in the correlated random coefficient model.* Emerald: Group Publishing Limited.

Yapa, A. D., & Magoro, K. (2017). Debt capital and financial performance: A Comparative analysis of south African and Sri Lankan listed companies. *Asian Journal of Finance & Accounting, 9,* 103-123. https://doi.org/10.5296/ajfa.v9i2.11761

Table A1. Definition of variables

Variables	Definition	Expected signs of β
AVAIL	Availability (Presence of institutions)	+
ACESS	Accessibility to credit	+
CULT	Cultural ties	+
AGE	Age of entrepreneur	+
COST	Cost of financing	-
PERS	Personalised Services	+
INC	Income of entrepreneur	-
EDU	Educational level (secondary and below, High School, Graduate and postgraduate). Based group = postgraduate	+
RESID	Place of residence (1 = rural)	+
DEVP	Developmental projects	+

Table A2. Summary Statistics

Variable	Observation	Mean	Standard deviation	Minimum	Maximum
Adoption/Usage	330	0.825688	0.379959	0	1
Availability	330	3.09735	0.660725	1	5
Accessibility	330	2.912577	0.937687	1	5
Cultural ties	330	3.384727	0.639508	1	5
Cost	329	3.23359	0.721412	1	5
Regulation	329	3.271282	0.868001	1	5
Personalised	330	3.499487	0.617878	1	5
Development	330	3.849846	0.490852	2	5
Sex	330	0.671733	0.470298	0	1
Married	330	0.577508	0.494709	0	1
Residence	330	0.803681	0.397823	0	1
Income	330	2.477848	1.199001	1	6
Age	330	3.915094	0.856792	2	6
Secondary	329	0.195046	0.396851	0	1
High	329	0.22291	0.416844	0	1
Undergraduate	329	0.417957	0.493988	0	1
Postgraduate	330	0.164087	0.370929	0	1

Table A3. Factors Influencing Adoption of Solidarity Financing

Dependent Variable (y): Usage of solidarity Financing

Binary Probit Regression result

Dependent Variable: Factors influencing use of solidarity financing

	Probit coefficient		**Marginal Effect coefficient**	
Variable	**Coefficient**	**Z-statistics**	**Coefficient**	**Z-statistics**
Availability	0.092661	0.55	**0.015933**	0.55
Accessibility	0.323687	2.77**	0.055657	2.75**
Cultural ties	0.317541	1.79*	0.0546	1.8*
Cost	-0.5317646	-2.49**	-0.0717076	-2.47**
Regulation	0.133683	1.16	0.022986	1.16
Sex	-0.22839	-1.03	-0.0371	-1.09
Marital status (married = 1 , 0 otherwise)	0.563542	2.72*	0.105424	2.63***
Age	0.333952	2.41**	0.057422	1.79*
Residence	0.515136	2.1**	0.110861	2.46**
Secondary School	0.3264299	1.09	0.0493115	1.24
High School	0.782603	1.09	0.102721	3.44***
Graduate	0.271825	2.54***	0.04501	1.12

Development	0.908065	1.08	0.156138	4.01***
income	-0.09268	-0.76	-0.01333	-0.76
Personalised services	0.751642	4.06***	0.129242	3.89***
Constant	-3.77778	4.13***		

Number of observation = 301

Wald chi2(13) = 53.57

Probability = 0.000

Log pseudo likelihood = -100.944 Pseudo R^2 = 0.2357

Source: Researcher, 2021

Table A4. Effects of Solidarity Finance on Entrepreneurship Performance

	OLS Results without inverse mill ratio		**OLS results with inverse mill Ratio**	
Variable	**Coefficient (Std Error)**	**t-Statistics**	**Coefficient (Std Error)**	**t-Statistics**
Availability	0.1038375	0.78	0.0795466	0.59
	(0.1328999)		**(0.1336966)**	
Accessibility	0.1483199	1.72*	0.1664861	1.88*
	(0.0862768)		**(0.0886442)**	
Cultural ties	0.2956907	2.27**	0.3044496	2.51**
	(0.1301649)		**(0.1215612)**	
Cost	-0.2586601	-2.1**	-0.2782058	-2.25**
	(0.1228813)		**(0.1233795)**	
Regulation	-0.0893685	-0.93	-0.0631456	-0.65
	(0.0956548)		**(0.0971786)**	
Sex	0.1173839	0.72	0.1165014	0.71
	(0.1636745)		**(0.1633438)**	
Marital Status	0.3507879	2.1**	0.3318472	1.98**
	(0.1674079)		**(0.1675844)**	
Residence	0.0312628	0.17	0.0260355	0.14
	(0.1871897)		**(0.1868454)**	
Income	0.1467973	1.99**	0.1447524	1.97**
	(0.073749)		**(0.0736131)**	
Age	-0.0624279	-0.62	0.0125697	0.11
	(0.100032)		**(0.112573)**	
Secondary School	-0.3079401	-1.25	-0.2336528	-0.93
	(0.2286004)		**(0.2510871)**	
High School	0.4314055	1.89**	0.677034	1.98**
	0(0.2286004)		**(0.3416943)**	
Graduate	-0.203818	-0.96	-0.141002	-0.65
	(0.2118178)		**(0.2158331)**	

Development Oriented	0.3691981	2.18**	0.5252242	2.62***
	(0.1689898)		**0.2003929)**	
Inverse mills ratio (IMR)			0.6897748	2**
			(0.3453365)	
Constant	-0.3291473	-0.42	-1.702339	-1.38
	(0.7892841)		**(1.236085)**	
Number of Obs. = 280			*Number of Obs. = 280*	
F(14,265)	*= 3.52*		*F(15,264)*	*= 3.44*
Prob>F	*= 0.00*		*Prob>F*	*= 0.00*
R^2	*= 0.157*		R^2	*= 0.1635*
Adj R^2	*= 0.1124*		*Adj* R^2	*= 0.116*
Root MSE	*= 1.1659*		*Root MSE*	*= 1.1635*

***, ** and * indicates 1%, 5% and 10% level of significance

Source: Researcher (2021)