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Entrepreneurship and poverty reduction in Cameroon A Vector Autoregressive approach

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ABSTRACT

This paper investigates the effect of entrepreneurship on poverty alleviation in Cameroon and determines the nature of the causality that exists between them using the vector autoregressive approach. The study uses data from the Cameroon National Institute of statistics and World Bank Development Indicators for the period 1980-2013. The results show that entrepreneurship has a significant negative impact on poverty in Cameroon and that there exists a significant bi-directional positive causality between entrepreneurship and poverty reduction. From a policy perspective, the study concludes that training and retraining of entrepreneurs as well as organizing entrepreneurship skills acquisition programmes are vital to boost entrepreneurship in order to reduce poverty in the country.

JEL Classification: E23, F2, F21, F43
Keywords: Entrepreneurship, Poverty reduction, Vector Autoregressive Approach

BACKGROUND AND INTRODUCTION

The Central problem of poverty is the unavailability of work [Vandenberg (2006)]. Work enables individuals to produce for themselves (i.e. food) and earned money which they could use it for exchange. It is also from work that wealth is created which, through taxation, allows governments to fund pro-poor services such as health care, clean water and education. Work is central to poverty reduction but 'working out of poverty' provides only general guidance on how to achieve that ultimate goal (Vandenberg, 2006)

There is an emerging consensus on poverty reduction and small enterprises that is comprised of two central elements. The first is that much of the population in poor countries operates or works for micro and small enterprises (MSE) and that even in richer countries, a substantial portion of the population is employed in small and medium enterprises (SMEs). In poor countries, MSEs are where the poor are working – either out of choice or out of necessity. The second element of the consensus is that the general functional areas of how to support private sector development in general and Small Enterprise Development (SED) in particular, are being established. These have been set out in a recent report of the UNDP's Commission on the Private Sector and Development, Unleashing Entrepreneurship, and in a number of similar documents (OECD, 2004).

The issue of poverty has been an age-old problem with humanity. The striking significant difference it poses in each generation is the group of people it affects and the intensity with which it affects them (Ofori, 2003). As pointed out by Angaye (2005), poverty is engulfing more and more of the world's human population. According to him, the number of the poor in the world stood at about 1 billion in 1994, 1.3 billion in 1995, 1.74 billion in 1999, 2.04 billion in 2000, 2.56 billion in 2002, and has continued to increase despite all developmental efforts put in place by both the government and non-governmental organizations (NGOs) to eradicate poverty. Olu (2003) observes that while the numbers of poor in the advanced countries of the world has reduced considerably over the years, the reverse is the case with the developing countries. Based on World Bank (2008b), nearly more than 1.4 billion people live in conditions of poverty in developing countries, with the most complex case being Sub Saharan Africa, where poverty reduction since 1990 has lagged far behind the other regions (Chen and Ravallion, 2008; World Bank, 2008a).

Poverty is reflected in developing countries in various forms including low nutritional status, low level of education, decline in spending on social services by the government, high percentage of household income spent on food, high infant mortality rate, low level of savings, low level of investment, low absorption capacity, poor stage of quality and quantity of infrastructural development and low level of productivity.

In Cameroon right from the colonial era, the economic performance of the economy was encouraging because of increase foreign revenue from the exportation of petroleum and other agricultural products whereas in the later parts of 1975, 1980, and the early 2000s the economy was not performing well and the incidence of poverty was exacerbated. In this connection, World Bank Development Indicators in 2013 shows that based on head count index, 24.88% of Cameroonians lived below the poverty line in 1996, 10.77% in 2001 and 9.56% in 2007. If this trend has to continue, it means that about 75 percent of Cameroonians by 2020 will fall below the poverty line. This is contrary to the case of other African countries like in Somalia where approximately, 43% of Somalia's population lives below the poverty line (Sarah Robinson, 2011). Entrepreneurship is one the measures embraced by the government of many African countries to reduce mass poverty and unemployment in their countries. The government of Cameroon has however embarked on a number of measures like the on-going Poverty alleviation programme which was accompanied by the National Good Governance Program (NGP) launched in 2000 to alleviate poverty.

Several studies on entrepreneurship (Slivinski ,2012; Yanya ,2012; Abdala, ,1997; Amar, 2003; Shaeikh Ali and Hafiez Ali ,2013; and Gielnik and Frese ,2013) concentrate on the contribution of entrepreneurship to sustainable economic development, job creation, innovation and resource allocation, neglecting the effect of entrepreneurship on poverty alleviation, especially in Cameroon. While some of the above studies have adopted a descriptive approach to the study of entrepreneurship some have employed quantitative approach of single equation. Therefore our expected outcome is unique because we are going to employ the Vector Autoregressive technique. In situations where such studies have been carried out in other developing countries they used techniques like OLS, Pair wise correlation and panel data of which Cameroon was not included. With this, the dynamics expected from entrepreneurship and poverty reduction have not actually been examined in Cameroon. Also, most of the government's efforts to reduce poverty in the country have quite often not been tailored towards promoting entrepreneurship for the unemployed people in the society. These problems therefore prompt the need for a current study.

It is on the basis of this that this study is designed to investigate the effect of entrepreneurship on poverty alleviation in Cameroon and to determine the nature of the causality that exists between them. The rest of the paper is structured as follows: Section two situates the paper in its proper perspective by reviewing both theoretical and empirical literature on entrepreneurship, poverty alleviation and growth. Section three discusses the method of analysis. Empirical evidence of the impact of entrepreneurship on poverty reduction in Cameroon amongst other variables is reported in section four. Section five then concludes the paper with some policy issues.

LITERATURE REVIEW

Empirical literature on entrepreneurship and poverty reduction

The literature provides several definitions of entrepreneurship. However, the similarity between them is that entrepreneurship derives from human ingenuity. Hill and McGowan (1999), entrepreneurship is seen as a process which involves the effort of an individual (or individuals) in identifying viable business opportunities in an environment and obtaining and managing the resources needed to exploit those opportunities. Aina and Salako (2008) described entrepreneurship as the willingness and ability of an individual to seek out investment opportunities and takes advantage of scarce resources to exploit the opportunities profitably. All in all, entrepreneurship is the process of creating something new with value by devoting the necessary time and efforts, assuming the accompanying financial social risks at the end receiving resulting reward.

The concept of poverty is broad and relative because everybody addresses poverty from his or her perspective. For this reason, attempts at poverty alleviation and eradication have been misplaced right from the conception stage as a result of the lack of a precise definition. For this reason Nweze and Ojowu (2002) categorized poverty into three namely: absolute poverty, relative poverty and subjective poverty. While absolute poverty is a situation where an individual or household is faced with limited financial resources and as a result, unable to meet his/her or its basic necessities of life such as food, clothes, shelter and health is the nucleus of our study, whereas relative poverty is a situation where an individual's or a household's income is less than the average income of the population in the society being considered. The implication is that the individual or household has goods and services which are lower than those of other persons or households in the society (Garuba, 2010). In this work we will consider poverty as a state where an individual is not able to cater adequately for his/her basic needs for food, clothing and shelter; is unable to meet social and economic obligations, lacks gainful employment; and has limited access to social and economic infrastructure such as education, health, portable water and sanitation. In sum, poverty will be captured by public expenditure on health and education.

Khandker (2006) in a study of microfinance institutions shows that, indirectly, entrepreneurship is the key to poverty reduction not just for the beneficiaries, but also through positive externalities to the rest of the society. The works of Coleman (2006) and Hulme (1999), shows that the ability of microcredit facilities to eradicate poverty is dependent upon the socioeconomic environment of the household in context. This implies that the application of finance to entrepreneurial activities is a more permanent and reliable way of eradicating poverty in an economy.

Ogundele observes that entrepreneurship can significantly contribute to reducing poverty if youth empowerment through the provision of social welfare services is promoted at all levels in the community. Equally, Ohize and Muhammed (2009) hold that Non-governmental Organisations can play a similar role in poverty alleviation. For example, these organizations

enable the youths to acquire skills and to benefit from counseling services to improve their living conditions. Akpama et al (2011) also hold the position that when young adults acquire vocational skills, they are more likely to be employed and consequently to escape from poverty. In this connection, Abdullah (2012) actually observes that a high proportion of youths actually reported a high level of acquisition of vocational skills.

From the above empirical literature, it can be observed that there is a wide disparity in terms of the definition and measurement of poverty and entrepreneurship which accounts for their complex findings. Furthermore, in order to provide solutions in eradicating poverty in Cameroon and developing countries as whole most studies concentrated on micro aspects whereas this study is going to closed the gap to this poverty issue by looking at it from a different angle. That is the macro level.

Theoretical Literature

As concerns the theoretical literature we are going to look at the Classical theory of entrepreneurship, the Schultz Approach to entrepreneurship, Schumpeter's theory of economic development through entrepreneurship, power theory of poverty and the personal income distribution theory of poverty.

The classical theory of entrepreneurship holds that the entrepreneur is pivotal in the exchange and circulation of goods/income in the economy. Kirzner (1973) observes that to the classicals, entrepreneurs bring to equilibrium demand and supply through pure arbitrage. They are motivated by profit to take risk to buy at certain prices and to sell at uncertain prices. In the distribution sector, income obtained from the sale of products is distributed to the other inputs of production -labour, capital and land thereby reducing poverty in the country. In the classical framework, entrepreneurs are considered as agents of economic development through the introduction and implementation of innovations. These innovations usually relate to the nature of products produced, the production technique, and marketing of the products and organization of work in the firm. The effective introduction and implementation of these innovations culminate in the satisfaction of new consumer wants and the establishment of new businesses which increase the employment of material and human resources and finally reduce poverty. Really, the newly created firms stimulate growth through the supply of jobs to the working population. In this way, entrepreneurs are credited for their contribution of the growth of the economy as they stimulate both the product market and the labour market. From the foregoing in the classical economy, the entrepreneur in the face of uncertainty has the responsibility to direct and control as well as to exercise judgment effectively as a decision maker.

Schultz Approach (Schultz, 1975) to entrepreneurship is closely link to situations of disequilibria and that entrepreneurship is the ability to deal with these situations of disequilibrium. In disequilibrium, agents are acting sub-optimally and can reallocate their resources to achieve a higher level of satisfaction. Entrepreneurship is the ability to coordinate this reallocation efficiently, and it follows that agents have different degrees of entrepreneurial ability. Schultz argues that, in disequilibrium, individuals know that opportunities to increase satisfaction exist but the reallocating process requires time. A better allocation of resources can be achieved either by experimenting (trial and error) or by investing in human capital. Schultz (1975) further argues that entrepreneurship exists in all aspects of life and as a result of this; housewives and students are entrepreneurs when reallocating their time for housework or student activities. Furthermore, since entrepreneurship is an ability that can be augmented by investment, Schultz argues that a market for entrepreneurship exists and that it

is possible to analyze entrepreneurship within the conventional supply and demand framework

Schumpeter (1949) considers entrepreneurship as innovation and not imitation. Since Schumpeter see entrepreneurship as an innovator he does not care much about economic profits but only joy he obtains from being an innovator and being a server to his society. For this reason, we say that Schumpeter's entrepreneur is an innovator in the entrepreneurship arena. In the Schumpeterian theory, the entrepreneur moves the economy out of the static equilibrium. Marz (1991), states that "Schumpeter hardly denied that the process of accumulation is the ladder to social power and social prestige; but he thought the very mainspring of the exercise of the entrepreneurial function is the powerful will to assert economic leadership. The joy of carrying through innovations is the primary motive, the acquisition of social power a subsidiary to it. The entrepreneur is not (necessarily) the one who invents new combinations but the one who identifies how these new combinations can be applied in production. This line of reasoning implies that a business owner is considered an entrepreneur only if he is carrying out new combinations. "Hence Schumpeter argues that it is the entrepreneur that moves the economic out from the static equilibrium by creating new products or production methods thereby rendering others obsolete. This refers to the process of "creative destruction"(creating uncertainty) which Schumpeter saw as the driving force behind economic development (Schumpeter, 1949)

Elsewhere, Folbre. (1982) shows that the power theory explains better the poverty situation in Less Developed Countries (LDC) since it places poverty within the structure of political power in the society. This theory holds that poverty is obvious in an economy where a few have the political power to allocate productive resources to benefit them most. To this Marxian theory, the ruling class uses the state machinery to monopolise wealth acquisition and decision making while a majority of the population continues to live in poverty. This means that poverty reduction would be a far-fetched goal except the majority of the population resists this exploitation through a revolution. Forgha (2006) shows that this has been the case in the Nigerian civil war (1967-1970), Burundian political revolution of 1991, Malian revolution of 1992 and Cameroon ghost town operation of 1992. In the case of Cameroon, only two heads of states have ruled the country from independence in 1960 till date. Even the creation of more than 100 opposition political parties to counter the exploitative forces of the ruling government has not yielded significant results. This shows that the power theory has failed to contribute to reducing poverty in Cameroon.

Also, the theory of personal income distribution and poverty alleviation alternatively known as the marginal productivity theory of poverty alleviation provides a microeconomic foundation of income inequality. It lays the bases to determine the mechanisms through which macroeconomic variables influence changes in poverty rates. This theory focuses its attention in the labour market and the determinants of labour incomes based on the demand and supply of labour under competitive market conditions. In a more specific case, this theory sees productivity as the driving engine for poverty reduction in any economy. It explains that firms will hire workers up to the point where the value of the marginal product equals real wage rate.

$$\text{That is } MPN = W/P \qquad (1.1)$$

Where, W= nominal wage rate, MPN = marginal product of labour, W/P= real wage rate and P = price. This theory also affirms that since majority of the households rely on labour market earning for most of their incomes, a rise in unemployment may result in a large decline in income particularly with those whose incomes are low to start with. Hence, the theory predicts

a positive relationship between unemployment and poverty. However, this relationship maybe mitigated by government transfer payments, which reduces the role of earned income. With respect to inflation, the theory is not clear but it is a well-known fact that during periods of inflation, fixed income earners suffer. Thus, we find that households are driven into poverty when inflation rises. Hence, this phenomenon consists of the positive relationship predicted between unemployment and poverty rate. The theory suggests that policies to eradicate poverty should reduce inflation, reduce income inequality and reduce or deal with the problems of unemployment.

METHODOLOGY

This study covered a period of 34 years (1980 to 2013) because it is within this period that data for the study are available and also because this period has witnessed a lot of policies implemented to reduce poverty in the country in the face of the increase in hardship caused by the economic crisis. This paper used secondary data from the national institute of statistics and was complemented by data from World Bank Development indicators to capture the existing cause-effect relationship between the variables; hence a casual research design is adopted for the study. In order to investigate the impact of entrepreneurship on poverty reduction we used the following model and the variables selected in the model are guided by theories and empirical literature. Ogundele, Akingbade and Akinlabi, (2012) observed that acquisition of vocational skills and entrepreneurship training lead to a significant reduction of poverty. This is also in line with the classical theory of entrepreneurship. Again the marginal efficiency theory of poverty explains the fact that macroeconomic variables like foreign aid reduce poverty in the country when invested in the real sector of the economy (like education, health and transport). This is the same situation with per capita income where an increase in the average income of the individuals makes it possible for them to obtain basic necessity of life. Therefore our equation is given as;

$$POV = f(ENT, FA, PCI).$$

Where; POV is poverty (life expectancy at birth, infant mortality and primary school enrolment), ENT is entrepreneurship (value added in the primary, secondary and tertiary sectors), FA is net official development assistance received per capita and PCI is per capita income.

This implies that our model is specified as $POV = \lambda_0 + \lambda_1 ENT + \lambda_2 FA + \lambda_3 PCI + \varepsilon$
and the a prior $\lambda_0 \neq 0$ $\lambda_1 < 0$, $\lambda_2 < 0$, $\lambda_3 < 0$

The Vector Autoregressive (VAR) Model was used, which is an extension of the Granger Causality test and allows one to go beyond the bi-variate framework. This approach allowed us to perform a regression for a system of equations to examine the interrelationship that exist between economic variables using minimal assumption about the underlying structure of the economy. The VAR equation contains lagged values of all the variables in the system where all the variables are predetermined (no exogenous variables). The aim was to provide good statistical representation of the past interaction between the variables. This technique of estimation was introduced by Sim (1980) and is advantageous in that it avoids the imposition of potentially spurious a prior constraints that are employed in the specification of structural models and also there is no issue of simultaneity since only lagged values of the endogenous variables appear on the right hand side of the equation. The VAR approach is also unique in fitting the values of entrepreneurship and poverty in Cameroon since one can estimate the dynamic aspects between these variables without having specified a full structural model. The approach also has the advantage of being easy to understand, and easily extended to non-linear specifications model (Forgha amd Mbella, 2013). Since the VAR involves a series of equations,

we can assume that each equation contains K lagged values where we can estimate the equation using the Ordinary Least Squares approach. Based on the specification above the VAR could be presented thus:

$$POV_t = \beta + \sum_{j-1}^{K} \beta j\, POV_{t-1} \sum_{J-1}^{K} \beta J ENT_{t-1} + \sum_{J-1}^{K} \beta J\, FA_{t-1} + \sum_{J-1}^{K} \beta J\, PCI_{t-1} + \varepsilon_{1t}$$

$$ENT_t = \beta + \sum_{j-1}^{K} \beta j\, ENT_{t-1} \sum_{J-1}^{K} \beta J POV_{t-1} + \sum_{J-1}^{K} \beta J\, FA_{t-1} + \sum_{J-1}^{K} \beta J\, PCI_{t-1} + \varepsilon_{2t}$$

$$FA_t = \beta + \sum_{j-1}^{K} \beta j\, FA_{t-1} \sum_{J-1}^{K} \beta J POV_{t-1} + \sum_{J-1}^{K} \beta J\, ENT_{t-1} + \sum_{J-1}^{K} \beta J\, PCI_{t-1} + \varepsilon_{3t}$$

$$PCI_t = \beta + \sum_{j-1}^{K} \beta j\, PCI_{t-1} \sum_{J-1}^{K} \beta J POV_{t-1} + \sum_{J-1}^{K} \beta J\, ENT_{t-1} + \sum_{J-1}^{K} \beta J\, FA_{t-1} + \varepsilon_{4t}$$

From the above, the estimated Ɛ's are the stochastic error terms also called impulse or shock elements. This helps to provide a clear distinction between correlation and causality as the impulse responds function. We also logged the variables for direct estimation and interpretation of the coefficients as degree of responsiveness or elasticity. From the VAR models, the estimated εs are a vector of residuals. The residuals, εs, represent the unexplained movement of the variables reflecting the influence of exogenous shock. It also represents a composite of the various exogenous shocks affecting the endogenous variables in the model. However, the standard VAR used in this work is limited to two lagged as explained by the Lagged Distributive Model.

Before our estimation, we tested for stationarity of the variables using Augmented Dickey Fuller and the Phillip Peron test, the NG peron e.t.c to check level of stationarity of the included variables and to avoid spurious results. The granger causality test like the Jurgenson Co-integration test was conducted to enable the result show the level of causality between the variables used in the model given that the variables were stationary at the same level. The Akiake Information Criteria and the Schwarz Criteria were employed in determining the number of lags used. More so, because of the fact that serial correlation is a major problem when using the VAR technique, this study used the Braisch LM statistics and the Portmanteau tests, to test for the existence of serial correlation.

PRESENTATION OF RESULTS

The stationarity tests of the variables used in the model was conducted. This was done by examining the graphs of the variables to determine the nature of the trend and if such trend shows random walk with drift or without drift. The graphs indicate that the variables in the model show no particular trend over the period of study, as they are stochastic with drift. They are not presented here because of space since they are too many. This therefore implies that the variables are non-stationary at level, never the less, the Augmented Dickey Fuller (ADF) and the Phillip Perron (PP) tests denote that they achieve stationarity after their first difference. The Unit Circle test not presented here due to space connotes that the residuals of the various models are integrated of the order one 1(1). Hence, long run equilibrium relationships exist between our variables since they are co-integrated. The VAR results for our models are presented and discussed below.

Table 1: Vector Autoregressive Result for the Four Models

VARIABLES	LOG(POV)	LOG(ENT)	LOG(FA)	LOG(PCI)
LOG(POV(-1))	0.82798 (4.46641)*	0.040746 (0.74285)	-0.74393 (-1.2086)	-0.51554 (-0.6971)
LOG(POV(-2))	0.32578 (1.5062)	-0.03180 (-0.4969)	1.49262 (2.0784)**	-0.02544 (-0.2949)
LOG(ENT(-1))	-2.62143 (-3.3110)*	0.74349 (3.1737)*	-4.01144 (-1.5259)	0.09232 (0.2923)
LOG(ENT(-2))	0.40587 (0.5906)	0.00096 (0.0047)	-1.32707 (-0.5816)	0.44743 (1.6322)***
LOG(FA(-1))	-0.01737 (-0.2983)	0.00079 (0.0459)	0.34747 (1.7967)***	0.04042 (1.7397)***
LOG(FA(-2))	-0.05567 (-0.9190)	0.03006 (1.6882)***	-0.14768 (-0.7342)	0.02069 (0.8561)
LOG(PCI(-1))	0.91893 (1.7938)***	-0.00796 (-0.0646)	1.26319 (0.7426)	1.38434 (6.7743)*
LOG(PCI(-2))	-0.95017 (-2.0870)**	-0.0087 (-0.0646)	-0.74980 (-0.4960)	-0.49177 (-2.7077)**
Ajusted R^2	0.90098	0.64085	0.49512	0.98014
F-Statistics	26.1601	5.13020	2.8194	141.936
VAR residual Portmanteau coef	2 lagged	2 lagged	2 lagged	2 lagged
Constant term	9.51686 (3.5263)*	1.16873 (1.4635)	16.19717 (1.8075)***	-0.83717 (-0.7776)

Source: Computed by the authors from the date set. Note that the values in the parentheses are the t-statistics. Where * = significant at 1%; ** = significant at 5%; *** = significant at 10%.

The VAR estimates presented on Table 1 above denote that there exist several other shocks that disturb the poverty level in Cameroon. This includes unemployment, government revenue and taxes and broad money supply which aggregately influence poverty in Cameroon. Looking at the poverty equation, the one year lagged of poverty has a significant positive influence on current poverty level in Cameroon. Also, the poverty equation reveals that the one year lagged of entrepreneurship has a negative significant impact on current level of poverty in Cameroon. This is in line with our aprior expectation and it supports the works of Shaeikh Ali and Hafiez Ali (2013), Akpama et al (2011), and Khandker (2006). On the other hand, the two year lagged of entrepreneurship show an insignificant impact on the current level of poverty in Cameroon. More so, the one and two year lagged of per capita income shows a significant positive and negative impact on current poverty level in Cameroon.

The poverty model shows that more than 90 percent variation of the current poverty level is accounted for by the lagged and current values of the variables included in the model. The F-statistic justifies that the result is more than 99 percent reliable. A portmanteau coefficient of 2, implies that our result is free from serial correlation up to two lagged.

From table 1 we observe that entrepreneurship of the previous years affects current year entrepreneurship. While that of one year lagged is significant, that of two year lagged is insignificant. Precisely, the results predict that a percentage increase in last year ENT [ENT(-1)] or ENT for the year before last [ENT(-2)] increases current ENT by 0.7434% and 0.0009 % respectively. Furthermore, a percentage increase in the two year lagged of official development assistance [FA(-2)] results in 0.030 percent increase in current level of entrepreneurship. This denotes that lagged value for the year before last for FA helps to increase the current level of entrepreneurial activities in the country. Given that the adjusted R2 for entrepreneurship is 0.640, it implies that the variables included in the model jointly explained 64 percent variation of entrepreneurship in Cameroon. More so, the model is

validated by the F-ratio with coefficient 5.1302 meaning that the results are more than 99% reliable.

In terms of official development assistance (FA) model, the one year lagged value of FA shows that it significantly affects current FA positively. Specifically, a percentage increase in previous lagged value of FA will increase current FA by 0.3474 percent. The two year lagged of FA indicates a negative but insignificant effect on current FA. Also, the two year lagged of poverty connotes that it significantly and positively impacts on current FA at 5 percent over the period of study. The coefficient of multiple determinations is low indicating that the explanatory variables included in the FA model have approximately 50 percent ability to predict the behaviour of FA in Cameroon.

The VAR estimates for per capita income (PCI), shows that the one year and two year lagged values of PCI significantly affects current PCI in the country. While the one year lagged shows a positive and significant impact at 1 percent two tail test. The two year lagged indicates a significant negative impact at 5 percent two tail test on current PCI. More so, the two year lagged for entrepreneurship denotes that it positively impacts on current PCI. With a coefficient of 0.4474, it implies that a percentage increase in ENT(-2) will increase current PCI by 0.4474 percent. The previous year lagged for FA shows that it positively affects PCI significantly. The adjusted R2 indicates that about 98 percent variation of PCI is explained by the variables in the model. This is further validated by the F-ratio with a coefficient of 141.93 which shows that the result is more than 99 percent reliable. The Variance Inflation Factor (VIF) test for multicollinearity with a mean VIF value of 1.16, indicates that the results are free from multicollinearity between the variables. The Breusch-Pagan test for heteroskedasticity also indicates that the results are homoskedastic. These results are not presented here because of spaced.

Based on the VAR causality result not presented here because of space, a positive bi-directional causality between POV and ENT was observed. This implies that, in Cameroon the poverty level of an individual will force him or her to involve in entrepreneurial activities which increase entrepreneurship in the country. Likewise the case of entrepreneurship causing poverty in Cameroon is as a result of the fact that most of the entrepreneurs are classified as unproductive entrepreneurs, since in undertaking an investment project they create contracts to overcome institutional shortcomings (that is by bending the rules to favour of them), they also carryout lobbying to receive contracts in their favour even though they are not qualified. In the country it is common to see that lobbying also creates a bureaucratic body where rents are earned by selling licenses or granting unsubsidized loans. All these activities increase the level of entrepreneurship in the country but do not reduce the poverty level of the citizens in the country. This is in line with the study of Douhan and Henrekson (2008). The results also show that there exists a unidirectional relationship between ENT and PCI. This implies that entrepreneurship influences per capita income and not the other way round.

In Cameroon, administrative barriers serve as a major barrier to successful entrepreneurship coupled with increasing political involvement in entrepreneurial activities. This makes most would-be investors to either delay registering their businesses or not registering them at all. In light of the above, most of these entrepreneurs turn elsewhere to invest and the few that are left in the country are the unproductive entrepreneurs. This negatively impacts the smooth functioning of the economy. As a result of this, Potential employment opportunities are lost and consequently poverty is not significantly reduced.

SUMMARY, RECOMMENDATION AND CONCLUSION

This study attempted to capture the causality between entrepreneurship and poverty in Cameroon for period of 34 years (1980-2013). Using the value added in each sector as a measure of entrepreneurship as presented by the Cameroon National Institute of Statistics, the VAR results shows that entrepreneurship has a significant negative impact on poverty in Cameroon. The VAR causality test shows that there exists a significant bi-directional positive causality between entrepreneurship and poverty reduction. The implication of this is that the entrepreneurs in Cameroon are classified as unproductive entrepreneurs who create contracts to overcome institutional shortcomings. Emphasis should be made to encourage productive entrepreneurs who increase an economy's ability to adapt and to increase its innovativeness (Kirzner, 1992). These groups of entrepreneurs pursue business opportunities within the prevailing institution. For instance, in times of rapid change, driven for example by a high rate of technological progress or new supply of resources, adaptability becomes more important.

The possible solution to the bureaucratic processes is to bring all stakeholders involved in business registration under one umbrella (one stop shop already being implemented in Cameroon).This practice should be extended to all regions of the country. This would ensure that the registration of businesses is accomplished in a short period under one roof.

As entrepreneurship has been seen to alleviate poverty, since the result of the study shows that it increased the per capita income of the citizens; the government should embarked on training and retraining of entrepreneurs and making credit facility easily accessible to them to invest in innovations and technology that help expand businesses. More so, the government of Cameroon should organized entrepreneurship skills acquisitions programme since the skill acquisition programme can help alleviate poverty which is believed to be the major cause of most the social vices in the society. Such progammes should be concentrated on the youths who are the leaders of tomorrow and also to ensure that they can provide for themselves and family in future will help break the vicious cycle of poverty.

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