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An Assessment of the Effect of Entrepreneurship on Youth Unemployment in Africa: The Cameroonian Experience

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Abstract

Youth unemployment is the tornado of the future concealed by the waves of rapid population growth. With the failure of the One Child policy in China and high fertility rates in the developing economies, the growth of youth unemployment is an inevitable problems with symptoms such as child labour, high youth crimes and terrorism just to name a few. This problem is accentuated if the labour market is rigidity towards the youths. In mapping out a blueprint, entrepreneurship is hypothesised to alleviate youth unemployment. To statistically, support this assertion, a 13 years sample of secondary data was extract for Cameroon from the World Bank database 2014 ranging 1990 - 2014 on Value Added the proxy for Entrepreneurship, Gross Domestic Product, Real Interest Rate, Youth Unemployment, and Investment. Using the Vector Autoregressive (VAR) technique of analysis it is revealed that Youth unemployment is positively sticky, outcomes of entrepreneurial activities were a results of labour market rigidity, and interestingly increasing youth unemployment is associated with entrepreneurial activities. Consequently, it is recommended that Top Businesses and Entrepreneurs in Cameroon should adopt the Business Leader Apprenticeship Approach as well as the government should foster legality of the entrepreneurial activities through apt conception and implementation of business laws.

Keywords: Youth Unemployment, Entrepreneurship, Business Leader Apprenticeship

1. Introduction

Over the past two decades, governments and international organizations have had growing concerns towards issues related to youth unemployment. Youths as defined by the United Nations (UN) refers to persons between the ages of 15-24 and are considered among those most affected by economic and financial dynamics. During the last financial crisis, the European average revealed a youth unemployment rate of approximately 15 %, which was 5 percentage points higher compared to the average total unemployment rate in the same area. The forecast suggested that a new recession will impact heavily on this segment of the population (Economist, 2011).

The global youth unemployment rate, which had decreased from 12.7 per cent in 2009 to 12.3 per cent in 2011, increased again to 12.4 per cent in 2012, and has continued to grow to 12.6 per cent in 2013. This is 1.1 percentage points above the pre-crisis level in 2007 which stood at 11.5 percent. By 2018 the global youth unemployment rate is projected to rise to 12.8 per cent, with growing regional disparities, as expected improvements in advanced economies will be offset by increases in youth unemployment in other regions, mainly in Asia. Global youth unemployment is estimated to stand at 73.4 million in 2013, an increase of 3.5 million since 2007 and 0.8 million above the level in 2011.

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Rising youth unemployment and falling labour force participation contributed to a decrease in the global youth employment-to-population ratio to 42.3 per cent in 2013, compared with 44.8 per cent in 2007. The global youth employment-to-population ratio is projected to be 41.4 per cent in 2018 (ILO, 2013).

Assessing this phenomenon at the African level, over two third of the African population was under the age of 25 by 2010. It was estimated that this made up more than 20 percent of the continent's population approximately 200 million persons. Of this lot 72 percent were considered poor. This was supported by the fact that the youth population constituted just 37 percent of the labour force within sub Saharan Africa. To check the phenomenon and consequences the African Development Bank Group (AfDB) developed a write-up on "Accelerating the AfDB's Reponse to the Youth Unemployment Crisis in Africa". This write-up was to serve as a background for the Joint Youth Employment Initiative for Africa launched in 2011 by the AfDB, African Union, International Labour Organisation (ILO) and UNECA. Soucat *et al* (2013) asserted that the roots or a cause of this crisis was within the labour market. They categorised the causes into two: factor affecting demand of labour and factors affecting supply of labour.

Key of those affecting demand of labour were: poor investment climate to foster job creation and informal employment dominance of labour market while for the supply of labour mismatch between higher education graduates and job availability, outdated pedagogic models, imbalance between higher education graduate quality/quantity. Of all the prescribed policy options implemented by AfDB, there was an evaluation emphasising the integration of youths in the labour market, support for private sector value chain initiatives, minimisation of skills mismatch between demand and youth employability as well as the revamping of educational systems to spur innovation and entrepreneurship amongst youths. Central to this crisis is the need of making youth skill readily absorbable by the labour market. This is crucial especially in a situation where the labour market has been saturated and has a slow rate of labour turnover. All the above may just be ad hoc measures if the entrepreneurial classes or absorption capacity of the economy is not efficiently developed.

In a broad conception entrepreneurship is the arts and science of job creation through innovative, creative and profitable market opportunities. The dynamics of the market never makes entrepreneurs redundant but only places them at the forefront of the market war of competition. Market competition may destruct other enterprises but from a positive perspective of reallocating scarce resources to the most rewarding enterprise. This concept of entrepreneurship aligns with Joseph Schumpeter's definition of entrepreneurship. He defines entrepreneurship as "Creative Destruction" which is a strong mechanism for innovation and change. The concept of entrepreneurship was further exploited by Kirzner to emphasis the characteristic of "alertness". The evolution of the concept has been primarily to address the issue of an efficient labour and product market. The synchronization of the product market with money market should necessarily stretch out to the labour market to reallocate labour resources to more efficient uses. In this case the labour market should be very dynamic. However, this may be a very tricky as labour service quality are essential for effective competition. It is interesting the rate at which Silicon Valley produces top entrepreneurs in American and the world it is very difficult to quantify the rate at which African and Cameroon business programs produce entrepreneurs. This phenomenon is problematic as the money and labour market are very rigid to youths as well as there is the absence of a well-defined program or platform to produces top Schumpeterian entrepreneurs. This can be seen as justified by the global trend below.

1.2 Statement of the Problem

Globally, the ratio of youth to adult unemployment rates hardly changed in recent years, and stands at 2.7 in 2013. Young people therefore continue to be almost three times more likely than adults to be unemployed, and the upward trend in global unemployment continues to hit them strongly. ILO (2013), asserts that the global employment-to-population ratio declined by 1 percentage point between 2007 and 2012. The contribution of youth unemployment to the decline in the employment-to-population ratio was particularly pronounced in the Developed Economies and European Union region and in East Asia.

The problem of youth unemployment in Africa poses complex economic, social and moral policy issues. It is also well known that this problem is part and parcel of the overall problem of unemployment and underemployment that afflicts almost all African countries (Kanyenze, Mhonne and Sparreboom, 2000).

The problem of youth unemployment in Africa was particularly acute in North Africa, were 27.1% of the young were estimated to be unemployed in 2011. This is followed by Sub Saharan Africa with 12.8% of youth unemployment. The ratio of youth-to-adult unemployment rates was estimated at 3.9% (North Africa) compared to 2.0% in Sub-Saharan Africa and 2.8% worldwide (Broecke and Diallo, 2012).

Although the regional youth unemployment rate in Sub-Saharan Africa is lower than in most other regions, it is significantly higher than the adult unemployment rate. Compared with an adult unemployment rate of 5.9 per cent in 2012, youth are twice as likely to be unemployed, with an estimated youth unemployment rate of 11.8 per cent in 2012. Youth unemployment rates are much higher than the regional average found in South Africa, where over half of young people in the labour force were unemployed in the first three quarters of 2012, and in Namibia (58.9 per cent in 2008), Réunion (58.6 per cent in 2011) and Lesotho (34.4 per cent in 2008; ILO, 2011a and 2013b). On current trends, the youth unemployment rate is projected to remain close to 11.7 per cent in the coming years.

Young people accounted for a significant proportion of the unemployed. ILO (2002) showed youth unemployment rate of 23.8% in 1995 for Mauritius with the share of youth unemployed to the youth population at 12% (13.9% for males and 9.9% for females). In 2000, 55.8% (57.9% for men and 53.3% for women) of South Africa's youth were unemployed. Youth unemployment is no less of a problem in the wealthier countries of North Africa. In 1990, youth unemployment rate was 38.7% in 1990 for Algeria; 34.4% in 1995 for Egypt and 35% in 1998 for Morocco. In light of the slow rate of economic growth and high rates of population growth, it is unlikely that the situation in these countries has improved significantly. Yet, the economically active population of the continent is projected to increase at 2.94% annually between 1997 and 2010, and would be growing more rapidly than the population at large, and faster than in other regions, presenting great dangers and possibilities.

Africa's population is very young. Young people make up more than 50% of the population of most member states of the Economic Commission of Africa (ECA). These young people are a potential resource for growth and social development if gainfully and productively engaged. However, they could also be a source of devastating social tension and conflict if not. In many countries, the degree to which youth can contribute to the possibilities of their countries in particular and the continent in general is constrained by circumscribed life chances, with the lack of job opportunities being one of the major circumscriptions (Alexandria, 2008). Youth unemployment is one of the major challenges in Cameroon as thousands of young people find no outlet after school and are therefore forced to engage in the search for greener pastures abroad. The United States of America, Europe and increasingly China have become favourite destinations for Cameroonian youths who often are forced to travel clandestinely.

In recent decades, the number of young people aged 15 to 35 has increased significantly in Cameroon. According to the second Cameroon Household Survey Enquête Camerounaise Auprès des ménages ECAM II, this age group accounts for 30.3 percent of the total population of 15.5 million people. A large number – over 36 percent - of these young people are hit hard by poverty. The situation has a severe effect on development, particularly in the areas of education, health, and professional training. In urban areas, youth unemployment stands at over 20 percent, compared to just over five percent in rural areas. This unemployment rate, particularly in cities, is a result of rural exodus and decline in the number of jobs available in the modern sector. The soaring population and therefore soaring labour force has also left fewer jobs available. In addition, inadequacies exist in the current socioeconomic integration system for youth, which does not have appropriate and comprehensive mechanisms for promoting self-employment among this population group.

Youths in Cameroon face high unemployment and under-employment. The latest national survey of employment in Cameroon and the informal sector found that the expanded unemployment rate among young people aged 15-35 stood at close to 13%, while the level of under-employment was 71.9%. Youths in Cameroon rely heavily on employment in the public sector or civil service, but the government debt has skyrocketed and there isn't enough hiring to absorb all youths seeking civil service employment. Outside of the civil service, government gives youth's start-up loans but these are often highly politicized. Government has become aware of the dangers posed by the growing rate of youth unemployment and migration, and has created specific ministries and programs to cater for the challenges faced by Cameroonian youths. This includes Rural and Urban Youth Support Program (PAJER-U), Youth Socio-economic Integrated Project for the Manufacturing of Sporting Materials (PIFMAS), and Integrated Support Project for Actors of the Informal Sector (PIAASI). In spite all of the above; the issue of youth unemployment is still severe in Cameroon.

This therefore implies that issues associated with the depth and breadth of youth unemployment in Cameroon are not yet identified and solved. It is based on the above that this work is designed to answer the following questions. What are the determinants of youth unemployment in Cameroon? What is the nature of causality between youth unemployment and entrepreneurship in Cameroon?

This study has as objective to examine the effect of entrepreneurship on youth unemployment in Cameroon. This will be done by investigating the causality between youth unemployment and entrepreneurship and evaluating the determinants of youth unemployment in Cameroon. In order to scientifically valid the results of this study hypothesised as:

Ho: There is no statistical significant effect and causality between youth unemployment and Entrepreneurship in Cameroon

1.2 Literature Review

There are several definitions of entrepreneurship. However, the baseline of entrepreneurship is that it derives from human ingenuity. Kirzner and Sautet (2006), assert that entrepreneurship comprises human creativity and the ability to explore profitable ideas that enable market actors to take advantage of new and socially beneficial gains from trade. Schumpeter (1934) curve out an important niche of entrepreneurship by asserting that innovation is the essence of entrepreneurship. Shane and Venkataraman (2000) defined entrepreneurship as the identification and exploitation of business opportunities to create goods and services. In this light, the spectrum of entrepreneurship zooms from monetary profits, innovations to social benefits. That is from starting new business to social entrepreneurship. These both include the identifying and exploiting of opportunities to address economic and social problem. Corporate entrepreneurship otherwise known as entrepreneurship within establish organizations is a very silent part of entrepreneurship and it usually the driving force of most rapid growing corporations (Austin, Stevenson and Wei-skillern, 2006; Dacin, Dacin and Matear, 2010).

Corporate entrepreneurship has been equate today to Research and innovation. This does not suffice the creation of a Research and Innovation Unit but the identification of creativity minds within the organisation and letting them drive the change in the organisation. This has given room for diverse corporate practices such as brainstorm, workgroups and corporate business retreats. Irrespective of the approach the key is to identify creativity minds within the organisation and pushing them to work as a team to drive the change of the organisation. This is the approach adopted by the DIAGEO Graduate program. Other approaches are the outright, award of Non-refundable Seed Capital by Sub Saharan Elite Entrepreneur such as the Tony Elumelu Entrepreneurship Programme (TEEP) among others. This part of entrepreneurship is very interesting in addressing youth unemployment. The virtue of personality traits, the age cohort of 15 - 34 is the peak period when the youths are very daring, do not fear to take risks as opposed to the old who have learn the lesson of failure and have become very caution and conservative. Innovation is risk taking and based on the risk and payoff matrix high risk if successful results in high payoff but low risk results in low payoff.

Entrepreneurship is believed to be an important mechanism of economic growth and development (Schumpeter, 1934). Their role is to promote prosperity by creating new jobs (Van Stel and D. Storey, 2004), reducing unemployment (Evans and L. S. Leighton, 1989), and increase economic development and growth of a region (Acs, S. Desai, and J. Hessels, 2008). It also increases productivity by bringing new innovation and speed up structural changes by forcing existing business to reform and increasing competition.

It is clear that the definition of who is included as youth very much depends on which dimension of "youth" takes precedence: demographic (e.g. age); cultural (notions of adulthood); biological (attainment of puberty); social (attainment of maturity or marriageability); or economic (e.g. ability to sustain oneself). The spectrum of youth has been variously defined to range from the ages of 10 or 11 years (as in some cultural traditions), to as high as 34 years (as in South Africa for instance). In Cameroon, according to the Ministry of Youth Affairs it ranges from 15 – 34 years. More generally the age range between 12 and 25 years is presupposed, which may even be narrowed to 15-24 years. According to the standard UN definition, youth comprises the age-group between fifteen and twenty-four inclusive (O'Higgins, 1997).

Therefore Youth unemployment will be seen in this work as individuals within the age group of 15-24 who have not worked more than one hour during the short reference period but who are available for and actively seeking work.

As observed in the literature, the empirical evidence linking unemployment to entrepreneurial activity is fraught with ambiguities. While some studies find that greater unemployment serves as a catalyst for start-up activity (Reynolds, Miller and Makai (1995); Reynolds, Storey, Westhead (1994); Highfield Smiley (1987), Hideki Yamawaki (1990); Evans and Leighton (1990) still others have found that unemployment reduces the amount of entrepreneurial activity (Audretsch and Fritsch, (1994) and Audretsch (1995).

On the basis of such diverse findings, it is complex to implement or recommend a general policy because of country specific characteristics responsible for by diverse causes and hysteresis of youth unemployment. Most of the studies rely on unemployment in general and not youth unemployment and they employed descriptive statistics, pair wise correlation and the Ordinary Least Square techniques in coming out with their conclusions. Moreover, among this study Cameroon was never a case study.

This work builds on the review of some key theories that are related to the topic. These include the Classical and Keynesian theory of unemployment, Pigou's theory of unemployment, Non Accelerating Inflation Rate of Unemployment, Schumpeter theory of Entrepreneurship, Knight's and Schultz Approach to entrepreneurship, and sociological theory of entrepreneurship.

1.3 Analytical Method and Material

This study is going to make use of time series data that will span from 1990 to 2014 for the economy of Cameroon. The reason for choosing this time frame is because data is available from the International Labour Organisations that is complemented with data from the National Institute of statistics Second Cameroon Labour Force Survey. Also, it is within this period that the Cameroon government has enacted a number of policies on youth unemployment and improving of the competitiveness of the private sector. Based on the Cameroon National Institute of Statistics, entrepreneurship is proxy by value added in the primary, secondary and Tertiary sectors of the economy while youth unemployment will be captured by the number of people between 15 -34 years who are unemployed as a percentage of the labour force. Hence, an ex post facto research design will be adopted since this study aimed at examining the existing interaction between the Youth unemployment and macroeconomic policies variables.

In order to view entrepreneurship and its effect on youth unemployment requires that we highlight their interactions not only among themselves but also between other crucial variables supported by economic theories and studies on related issues. Sequel to the fact that one of the objectives of this study is to examine how entrepreneurship relates to youth unemployment and vice versa, then our models must contain system equations explaining these variables and showing their interactions.

This study intends to make use of substantial statistical information much of which will be generated from the Cameroon financial bills, Annual Reports of the Ministry of Youth Affairs, Department of Statistics and National Account (DSNA), Bank of Central African State (BEAC), Annual Reports 2012, African Development Indicators, Various Issues, International Labour Organization, and World Bank World Tables on Development Issues. Therefore, this study will depend intensively on library research on which secondary time series data will be generated and analyzed.

The Structural Vector Auto-Regression (SVAR) method of analysis is adopted for this work. The SVAR technique is to provide improvement on the identification mechanism by imposing restriction based on economic theory. The technique generally focuses on how innovations to one endogenous variable affect other endogenous variables and the direction of instant correlation between innovated variables can be assessed. It is also possible to determine whether any stocks within the period of study have temporary or permanent effects on the endogenous variables as it is the case with entrepreneurship and Youth unemployment in Cameroon. Given the fact that Cameroon has no independent monetary policy, as such all the monetary parameters specified in our equations above are dropped in favour of those of fiscal and commercial policies as presented below. The general understanding from the lagged models are that current expectations are formed by modifying previous expectations in the light of current experience. Thus, current data are between in explaining current issues than previous data.

$$\Delta LCAPFL_t = \alpha_0 + \sum_{j=1}^{N} \alpha_j \Delta LCAPFL_{t-j} + \sum_{j=1}^{N} \beta_j \Delta LRMVNR_{t-j} + \sum_{j=1}^{N} \gamma_j \Delta LGOVEX_{t-j} + \sum_{j=1}^{N} W_j \Delta EDTY_{t-j} + \sum_{j=1}^{N} \theta_j \Delta INFLA_{t-j} + U_1 \text{.....(1.3.1)}$$

$$\Delta LRMVNR_t = \beta_0 + \sum_{j=1}^{N} \beta_j \Delta LRMVNR_{t-j} + \sum_{j=1}^{N} \alpha_j \Delta LCAPFL_{t-j} + \sum_{j=1}^{N} \gamma_j \Delta LGOVEX_{t-j} + \sum_{j=1}^{N} W_j \Delta EDTY_{t-j} + \sum_{j=1}^{N} \theta_j \Delta INFLA_{t-j} + U_2 \text{.....(1.3.2)}$$

$$\Delta LGOVEX_t = \beta_0 + \sum_{j=1}^{N} \gamma_j \Delta LGOVEX_{t-j} + \sum_{j=1}^{N} \beta_j \Delta LRMVNR_{t-j} + \sum_{j=1}^{N} \alpha_j \Delta LCAPFL_{t-1} + \sum_{j=1}^{N} W_j \Delta EDTY_{t-j} + \sum_{j=1}^{N} \theta_j \Delta INFLA_{t-j} + U_3 \text{.....(1.3.3)}$$

$$\Delta EDTY_t = \beta_0 + \sum_{j=1}^{N} W_j \Delta EDTY_{t-j} + \sum_{j=1}^{N} \beta_j \Delta LRMVNR_{t-j} + \sum_{j=1}^{N} \alpha_j \Delta LCAPFL_{t-1} + \sum_{j=1}^{N} \gamma_j \Delta LGOVEX_{t-j} + \sum_{j=1}^{N} \theta_j \Delta INFLA_{t-j} + U_4 \text{.....(1.3.4)}$$

$$\Delta INFLA_t = \beta_0 + \sum_{j=1}^{N} \theta_j \Delta INFLA_{t-j} + \sum_{j=1}^{N} \beta_j \Delta LRMVNR_{t-j} + \sum_{j=1}^{N} \alpha_j \Delta LCAPFL_{t-1} + \sum_{j=1}^{N} \gamma_j \Delta LGOVEX_{t-j} + \sum_{j=1}^{N} W_j \Delta EDTY_{t-j} + U_5 \text{.....(1.3.5)}$$

The process of estimating the SVAR involves five steps. First, a reduced form VAR is carried out using the method of Ordinary Least Squares when the appropriate Lag length is selected to ensure no serial correlation by the residuals. In the second step, the structural parameters of the model are identified through imposition of theory-based restrictions. Third, in the case where shocks are assumed to have temporary effects, the short run restriction SVAR model is used. However, where the shocks are assumed to have permanent effects, the long run SVAR is employed. Lastly, the Orthogonalised and structural response function and forecast error variance decomposition are analyzed. Before the simulation test of finding out the implications of entrepreneurship and youth unemployment, some normality tests would be conducted as presented below.

As an economic study, a series of tests will be carried out to validate the SVAR results. We will start by testing the stationary of the time series data included in the models. We employ the Univariate Augmented Dickey-Fuller (ADF) test which assumes that the error term U_t is uncorrelated. That is the COV (U_t U_{t-1}) = 0. There is the breakdown in any system especially when results from such system have their COV (u_t U_{t-1}) $\neq 0$. A solution to this is provided when added lagged value is introduced in the Dickey and Fuller test called the Augmented Dickey-Fuller unit root test given as:

$$\Delta Y_t = b_0 + \delta Y_{t-1} + \sum_{i=1}^{n} \alpha \Delta Y_{t-1} + \sum t \quad \text{.....(1.3.6)}$$

Where; $\sum t$ is a white noise process. It is expected that the value of calculated δ should be more negative than those obtained from the table t-value at 10% or less. A confirmatory test will also be conducted using the Phillips-Perron (PP) unit root test. This will be carried out because the ADF test assumed that the error terms U_t and U_{t-1} are independent and identically distributed, which is empirically not true. The PP also has added advantage in that it uses non-parametric statistical methods to take care of the serial correlations in the error without adding lagged difference terms. Furthermore, the use of the PP unit root test replaces the use of lags in the ADF test which has been criticized as being arbitrary (Nyong, 2005). Based on the size and power criticisms on the traditional unit root tests, that is the probability of committing a type 1 error is high and by the power of the tests, we also mean that the probability of rejecting the null hypothesis when it was not expected to be rejected is also high (Terrence and Mills, 2001).

To overcome the above criticisms and those associated with structural breaks in the system if any, we intend to make use of the Kwiatkowski-Phillips-Schmidt-Shin (1992) (KPSS) test for stationarity, which are strongly related to the lagrange multiplier (LM) test, which hypothesized that the random walk has zero variance.

Furthermore, this test statistic is based on the examination of the null hypothesis that a given series is level-stationary or stationary around a deterministic trend against the alternative that the series is first or second difference stationary. To improve the power of the unit root test, the Elliot, Rethenberg and Stock (1996) proposed a local approach to unity de-trending of the time series on the basis of which a flexible optimal point "P-test" takes serial correlation of the error term into account. .

The use of Cointegration technique allowed this study to capture the long-run equilibrium relationship between non-stationary series within a stationary model (Adam, 1998; Johnston and Dinardo, 1997). Furthermore, Cointegration avoids both the spurious and inconsistent regression problems which would have otherwise occurred with the regression of non-stationary series.

It also permits the combination of the long-run and the short-run information in the same model and overcome the problems of losing information that might had occurred from attempts to address non-stationary series through differencing (Adam, 1998). Cointegration technique makes it possible to capture the information of non-stationary series without sacrificing the statistical validity of the estimated structural equations in VAR. We will also adopt the Johansen (1988); Johansen and Juseluis (1992) methodology based on SVAR approach to test for the Cointegration of the variables in our models. It is applied on more than two variables simultaneously which is used in estimating and testing for the presence of multiple Co integrating vectors; it determines both the number of Co integrating vectors and provides estimates of these vectors together with estimates of the adjusted parameters.

The merits of the above methodology include stable parameter estimates, since analysis will be based on stationary time series data. It is also data admissible and existence of theoretical consistency would enhance the forecasting and policy formulation with the models. Furthermore, Co-integration an Error Correction Model (ECM) would be used in this study because it adds richness, flexibility and versatility to the econometric modelling and integrates short-run dynamics with long-run equilibrium. Hence, accurate predictions will be confidently made on the economic relationships between entrepreneurship and youth unemployment in Cameroon within our period of study. Pre-forecasting tests that would be conducted and it includes; the Jacque Bera test, the Kurtosis test, the root mean square test, the skewness test.

1.4 Presentation and discussion of results

In presenting our result of the various models, we start by carrying out unit roots test using the Augmented Dickey Fuller and Phillip Perron Test for stationarity. We observed that none of the time series variables in our study are stationary at levels. Their results though not presented here due to space indicate that the variables gain stationarity after their first difference.

Table 1.4.1 Vector Autoregressive Results on Entrepreneurship and Youth Unemployment and in Cameroon

	YUNEMP	ENP	RIR	GDP	INV
DlogYUMEMP$_{(-1)}$	– 0.55881 (-2.4260)	0.04156 (0.51843)	0.19652 (0.1363)	0.16282 (1.1680)	– 0.0886 (-0.4020)
DlogYUNEMP$_{(-2)}$	– 0.19403 (-1.2005)	0.06859 (1.2194)	– 0.43895 (-0.43408)	– 0.19261 (-1.04914)	0.01020 (0.0659)
DlogENP$_{(-1)}$	0.77559 (0.7237)	-0.02965 (-0.0795)	5.9616 (0.8892)	- 2.28014* (-3.5160)	0.8647 (0.8430)
DlogENP$_{(-2)}$	0.21278 (0.1628)	0.01658 (0.03646)	4.00398 (0.4896)	- 0.8403 (-1.0623)	0.45045 (0.3600)
DlogRIR$_{(-1)}$	0.22562* (3.4443)	– 0.01807 (-0.7929)	0.0134 (0.0328)	0.0431 (1.0887)	0.06756 (1.0774)
DlogRIR$_{(-2)}$	-0.10220 (-1.3978)	-0.0029 (-0.1146)	-0.26825 (-0.5864)	-0.07227*** (-1.6334)	0.02936 (0.4195)
DlogGDP$_{(-1)}$	– 10252 (-0.2771)	– 0.0267 (-0.2076)	1.8425 (0.7961)	0.04313 (0.1927)	– 0.06078 (-0.1716)
DLogGDP$_{(-2)}$	-0.51796*** (-1.7661)	0.01453 (-0.1424)	– 1.8522 (-1.0095)	0.12736 (0.7177)	-0.1749 (-0.6231)
DlogINV$_{(-1)}$	-0.3725 (-1.2582)	-0.07807 (-0.7577)	0.82885 (0.4475)	0.10898 (0.6083)	- 0.09987 (-0.3524)
DlogINV$_{(-2)}$	- 0.5478*** (-1.8521)	- 0.02498 (-0.2427)	0.22533 (0.1217)	0.21672 (1.2107)	- 0.22207 (-0.7843)
Constant	-0.02374 (-0.8102)	0.00607 (0.59514)	-0.05676 (-0.3096)	0.02608 (1.4711)	0.00989 (0.3527)
Adj. R-squared	0.85880	-0.48603	-0.2472	0.80776	-0.3953
F-Ratio	6.6907	0.3131	0.58375	4.6222	0.40504
Degree of freedom	13	13	13	13	13

Source: Computed by author using data on Youth unemployment (YUNEMP), Entrepreneurship coefficient (ENP), Real Interest Rate (RIR), Gross Domestic Product (GDP) and Investment (INV) for Cameroon from the World bank Database 2013 Extract
Values in Parentheses (...) are the estimated T-statistics and variable significance are denoted as * = significant at 1%, **= significant at 5% and ***= significant at 10% levels respectively.

Youth Unemployment Equation

From the above youth unemployment equation we can infer that youth unemployment of the previous year's positively affect current youth unemployment in Cameroon over our period of study. Precisely, the result predict that a unit increase in last year YUNEMP [YUNEMP (-1)] or YUNEMP for the year before last [YUNEMP(-2)] increases current YUNEMP by 0.0757 units and 0.2026 units respectively. However their impact is not statistically significant. It can also be infer from the result that the one year and two year lagged of entrepreneurship has a direct influence on current youth unemployment. This implies that an increase in entrepreneurial activities will increase the level of youth unemployment in Cameroon over our study period. The one year lagged of interest rate shows that it has a positive effect on the current level of youth unemployment whereas the two year lagged denotes a negative effect. This therefore implies that a unit increase in the two year lagged of interest rate will lead to a significant reduction of current youth unemployment by 0.2227 units. The first and second year value of investment shows a negative impact on current level of investment. Economic growth which is measure in terms of GDP indicates that the one year lagged and two year lagged of GDP has a small negative and positive impact on current youth Unemployment. The coefficient of multiple determinations (Adj.R-squared) shows that approximately 76 percent variation of current youth unemployment is explained by the variables in the model. This is significant at 1 percent based on the F-statistics.

Based on the entrepreneurship result presented in table 4.1 above, we observed that the one year lagged and two year lagged of entrepreneurship exerts a positive and negative influence respectively, on current entrepreneurial activities in the country over our period of study. However, it is only the one year lagged which is significant. This implies that a unit increase in entrepreneurial activities in the previous year will lead to a significant increase in the current level of entrepreneurship. Precisely current entrepreneurship will increase by 0.6575 units. The past values of youth unemployment connotes that it positively affect current level of entrepreneurship in Cameroon over the period of study. The one year and two year lagged values of Real Interest Rate (RIR) and Gross Domestic Investment (GDP) indicate a positive influence on current level of entrepreneurship in Cameroon while investment shows a negative influence. The model has a low coefficient of multiple determinations and a non-statistically significant F-statistics.

The VAR result for real interest rate (RIR) denotes that the first and second lagged values of all the variables used in the model including that of real interest rate itself either have a positive or negative effect on current interest but none of them are significant. The model may not be very relevant in our study as it is not statistically significant as well as it has a very low power of predictability as shown by a very low adjusted R-Squared of 0.16630.

Looking at the VAR result for economic growth (GDP), we can infer that the one year lagged and two year lagged of GDP has a positive impact on current GDP over our period of study. A unit increase in the previous year value of GDP will increase current GDP by 0.6339units and the result is significant at 1percent while that of the two year lagged is positive but in significant. The one year and two year lagged values of youth unemployment negatively affect current GDP in Cameroon. This implies that a unit increase in one year and two year lagged values of youth unemployment will decrease current GDP by 6.0413 and 25.684 units respectively. However, it is only the effect of the two year lagged value that is significant. The results also show that the one year and two year lagged values of entrepreneurship negatively and positively affect current GDP in the country respectively. With a coefficient of 17.7170, a unit increase in the one year lagged of entrepreneurship will significantly reduce current GDP by 17.717units. The first and second lagged values of real interest rate denotes that RIR (-1) and RIR(-2) positively and negatively affect current GDP over our period of study respectively. With the one year lagged of real interest rate RIR (-1) showing a significant positive impact on current GDP. The coefficient of multiple determinations has a value of 0.956776. This implies that the distributed lagged explanatory variables are able to jointly determine approximately 96 percent of the outcome of economic growth in Cameroon. The statistical reliability of our model is vouched by the F-statistic which is significant at the 1 percent level. Thus, our model has 99 percent reliability with a 1 percent error margin.

Based on the investment result on our VAR model we can observed that the one year lagged and two year lagged of interest rate exerts a positive impact on current level of investment.

The one year lagged of interest rate indicates a significant increase in current level of investment by 0.25884 units over our period of the study. Reading from the coefficient of multiple determinations (adjusted R-Squared), our explanatory variables in the model are capable of explaining about 76 percent of the outcome of current investment level in Cameroon. Moreover, our model has its statistically predictability ability validated by the F-Statistics test.

1.5 Findings, Recommendation and Conclusion.

In order to make consistent recommendation, it is necessary to recapitulate the major findings of this work. It can logically be deduced from the results that youth unemployment is positively sticky in Cameroon. This implies that once a Cameroonian youth is unemployed there is a high probably that he remains unemployed for a long time. There are two major implications from these results. The first is the difficulty of finding a paid job or the rigidity of the labour market which continually keep them out of formal employment leaving them the option of self-employment as the starting point of becoming entrepreneurial. This implies, a majority of today's entrepreneurs are not by choice but an outcome of the labour market. This is justified by a positively relations that exist between youth unemployment and entrepreneurship.

Secondly, since the cost of capital is interest rate, an increase in interest rate will increase youth employment. This comes from the fact that increase interest rate implies a reduction in investment and a reduction in employment opportunities for youth. This is only to compliment the fact that they youths themselves cannot have access to capital due to higher cost of capital.

Entrepreneurship has a positive impact on entrepreneurial activities in the first year and in the second year the impact is negative. This implies that entrepreneurial innovative ideas and products have a life span of one year to benefit the entrepreneur after which it does not. This is very true of the Cameroon economy where there is very little or no control on ownership rights. It is interesting to note here that the nature of Cameroonian entrepreneurship is not technological driven productions of some unique and new product but just the exploitation of market opportunities in the form of buying and selling which is very easy to imitate. They higher the possibility to imitate the shorter the period to benefit from an entrepreneurial venture by the entrepreneur. This has been witnessed in the Small and Medium Size Entrepreneurial activities in Cameroon. However, this high level of imitation improves on consumer welfare but it reduces producers' profit which producers will like to enjoy for a fairly long time. This also reveals the fact that the entrepreneurial activities in Cameroon are easy in that is it is usually just the identification of some market need with no true innovation in product creation. Thus, to imitate is very easy and faster. This type of entrepreneurs are the Kuznet's type of entrepreneurs alert to market opportunities only.

The crucial part of the finding is the fact that an entrepreneurial activity has a huge negative impact on Gross Domestic Product (GDP) if there is a one year projection in entrepreneurial activities. This is interesting because from the nature of data available (Value Added by entrepreneurial activities) and the Schumpeterian theoretical backing of creative destruction and value addition, this finding represent very interesting implication of the Schumpeterian entrepreneur. That is, at the advent of a significant value addition in a product (innovation), there is a very high probability that related old products become obsolete. This will result in a Gross Domestic Product (GDP) fall in the current year as the new innovative product tries to break the old market. With this creative destruction, old firms are pushed to innovate and this outcome has been evident in the Telecommunication industry, Brewery industry, Media industry, Hospitality and Tourism industry, Secondary and Higher Education industry, not forgetting the Health industry and Agro food industry between 1991 and 2014.

In conclusion it is necessary to establish the finding of the hypothesised problem of this study. It is very important emphasising that this study reveals that there is not direct effect relationship between youth unemployment and entrepreneurship. However, there is an indirect effect relationship between this two variables established there the Gross Domestic Product (GDP). As such, there exists a system of equation justifying the use of the Vector Autoregressive estimation technique employed by this study. Hence, a significant relationship between GDP and youth unemployment as well as between GDP and entrepreneurship sustains the argument that youth unemployment has a significant on entrepreneurship. This is argued on ground that an increase in GDP reduces the rate of Youth unemployment and an increase in entrepreneurial activities will results in a creative destruction which will cause GDP to fall and result in Youth employment again.

This finding seems very consistent with the trade cycle and explains the progressive business cycle with peaks and slums. On these findings some very useful recommendations can be made.

In order to build a strong entrepreneurial class in Cameroon the best approach is to go by the traditional African approach of the meaning of the word *"Entrepreneur".* The African business culture from time immemorial has been apprenticeship. This strategy has always formed successful business persons. Borrowing from the traditional African meaning of an *"Entrepreneur"* or *"Business Master"* or *"Master"* this study recommends the Apprenticeship Model of entrepreneurial training. This model in modern context has been embodied in the Modern Business Model of Influential Business Leadership. This approach has been embraced by most African New Generation institute of Higher learning like the Catholic University Institute of Buea (CUIB), Makere University, Stellenbosch, and many other reputable African universities.

Furthermore, other business organisations have adopted the model in the form of Graduate Programs like DIAGEO and the African Development Bank (AfDB). It is necessary that top businesses in Cameroon adopt this model of Business Leaders Apprenticeship (BLA). This model is a strategic approach that can successfully tackle youth unemployment on a win-win principle by using the innovative ideas of these youths and giving them on the job training through Influential Business Leadership. This Influential Business Leadership training model has been adopted by some top African entrepreneurs such as the Tony Elumelu under the Tony Elumelu Entrepreneurship Programme (TEEP).

Consequently, in order to address youth unemployment's organisation and top entrepreneurs in Cameroon should adopt the Entrepreneurship Apprenticeship Approach (EAA) on the bases of 3 years, 5years and 7years training and Work plan. The advantage is that the innovative ideas of the unemployed youths which cannot secure start-up capital for them because financial institution trying to minimise the credit risk, can be nurtured to maturity based on the all the requirements for entrepreneurial success. Entrepreneurial Success is not all about the ideas but the marketing of the idea in the form of an investment asset for investors. This is why one of the key tools of the Influential Business Leadership is pitching of business ideas a typical tradition of the Silicon Valley. This approach will help make steady the growth of the entrepreneurial class in Cameroon and Africa as a whole.

The next very import reason for this Business Leader Apprenticeship is that it helps tackle the problem of the informal economy. If the unemployed youths are trained on the tenets and ethical values of business, they will see every reason to be established within the formal economy. At this point we open the second recommendation: that government show create and enable environment for the private sector through Institutional Investors since the commercial banks have failed to allocate resources in this area. It may be interesting to note that the clumsiness and ambiguity of the implementation of the Financial law also has limited if not discourage good entrepreneurial activities. Every wise government sets the tax burden within the financial sources of her economy and broaden the tax based. Statutory financial obligations are very clear and create not room for black market transactions. So by an enabling environment just like the new Financial Law for 2014 tries to bring equity in preferential treatment between foreign and domestic entrepreneurs, domestic entrepreneurs should be given the possibility to partner with foreign entrepreneurs so as to check the excesses of exploiting the domestic market (Capital flight). It is necessary to recapitulate that consumers welfare is not just improved by the availability of variety but by the available quality cost effective variety which is hugely missing in the Cameroonian market. These are outcome of the existing Investment Code and other business related financial laws. Consequently, business illegalities are an outcome of a poorly structured business environment in the implementation of business laws. Hence, the enabling environment is to ensure that business start-up procedures are less clumsy, person depend in implementation, balance in ownership especially as government policy tries to attract Foreign Investment. With these two major recommendation youth unemployment can be convert to a very strong new generations of entrepreneurs to emerge and sustain high growth level in Cameroon for the future.

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