Original Paper

An Empirical Analysis of the Factors that Influence the Demand for Entrepreneurship in Cameroon

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Received: December 27, 2018 Accepted: January 8, 2019 Online Published: February 3, 2019
doi:10.22158/jepf.v5n1p70 URL: http://dx.doi.org/10.22158/jepf.v5n1p70

Abstract

Population expansion and resource availability have been the basis for many entrepreneurial activities around the world. The presence of resources and the continuous drive to provide the ever growing needs of man has been a fortune for many entrepreneurs. Unfortunately, this is not a general rule as there are resources rich areas with little or no entrepreneurial activities. Within the context of this lack of standard rule for the development of entrepreneurship, this paper investigates the determinants of the demand for entrepreneurship in Cameroon using the Johansen co-integration procedures and the Error Correction Mechanism (ECM) based on data collected from the World Development Indicators, WDI (2016) and the KOF globalisation index database between 1980 and 2017. After testing for the short and long run relationship, the study found out that population growth, technology and globalization negatively affects the demand for entrepreneurship in Cameroon while economic development positively and significantly determines the demand for entrepreneurship. On the basis of these findings, the study suggests that government should develop and enact policies that will sufficiently regulate the market and create the right business environment for the sustainability of entrepreneurial activities in Cameroon. While recognizing the role of population expansion in providing a market for business, overpopulation should not be tolerated as it becomes a liability in struggling entrepreneurialism.

Keywords
Demand for Entrepreneurship, Technology, Globalization and Economic Development

1. Introduction

Increasing world population is accompanied by increasing problems of all sorts, ranging from the satisfaction of the basic human needs to many others such as environmental degradation, deteriorating
healthcare, political instability amongst others. The existence of these problems creates enormous business opportunities, necessitating man-made innovations to solve them. Africa’s population is growing rapidly and African youths currently have limited income opportunities other than self-employment. Globally, there are more than 1 billion young people between the ages of 15 and 24 defined as youth by the United Nations (Germinah & Amrei, 2015). The growth in the population and economies of the countries of the world creates entrepreneurship opportunities in all sectors of the economy, ranging from consumer goods, construction, education, medicine and others. These opportunities enable an individual to start a business that he or she will wholly own (Mthuli, n.d.). According to Mthuli (n.d.), entrepreneurship is associated with the capacity of individuals to create new businesses and to innovate.

In the context of rising world population, entrepreneurship opportunities tend to be dominant in those business sectors providing the most basic needs such as agriculture and health. The UN (2010) estimates that the agricultural sector needs to increase food production by 70% by 2050 to keep pace with the current rate of increase in population. The success of generating income for majority of rural and urban dwellers with no formal paid employment highly depends on entrepreneurship and a nation’s ability to generate a steady stream of business opportunities can only come about when its people take to entrepreneurial activities (Okezie & Asoluka, 2013).

The pharmaceutical industry equally presents many business opportunities, which will see a growth in demand for treatments of infectious diseases like malaria as well as chronic conditions such as cancer. The World Health Organization (2001) estimates that by 2015, more than 10 million deaths could be avoided annually by increasing healthcare interventions, the majority of which depend on essential medicines. Though the global view on entrepreneurship has changed recently, Duru (2011) indicated that early scholars regarded entrepreneurship from different dimensions, ascribing it to the perspective of functions of an entrepreneur, which include an inventor, imitator, innovator, or more appropriately, a calculated risk taker.

Meanwhile, addressing crises (shortages of food, potable water, and adequate medicine and health care; human rights abuses; environmental challenges; growing poverty and wealth disparity; and economic and political instability) faced by the world’s population offers more opportunities for entrepreneurship perceived through the market demand for goods and services. Fouda and Pene (2015) observed that resources abundance does not imply entrepreneurship as the East Region of Cameroon is a resource-rich region with limited entrepreneurial activities compared to other Regions. The finding of the paper further revealed that entrepreneurial activities are mainly developed from the small business sector in Cameroon.

According to the Global Entrepreneurship Monitor Global Report (2012) as cited by Mike and Donna (2012), throughout the world, shifts in population demographics, technological changes, fluctuating economies and other dynamic forces have transformed societies as never before, bringing new challenges and opportunities to the forefront. Among the responses to these shifting forces is an
increased emphasis on entrepreneurship by governments, organisations and the public as a whole.

The nature and scope of these entrepreneurship opportunities are shaped amongst others by the stage of economic development, globalization and stage of technological development of countries. Storey (1999), and Carre, Van Stel, Thurik and Wennekers (2001) observed a positive association between economic development and self-employment rate in a good number of developed countries and attribute this to the fact that new industries tend to crop up with progress in economic development. To Carree, Van Stel, Thurik and Wennekers (2001), economic growth impacts positively on self-employment. Technological advances increase demand for entrepreneurship (Casson, 1995) and creates barriers to entry of new firms (EIM/ENRS, 1996). Though, the increasing pace at which international economies are being integrated over the last couple of years has given rise to a lot of optimism for entrepreneurship, it produces adverse effects in certain areas of business (Olson, 1982).

In many countries of the world, the demand for entrepreneurship is driven by the inner desire to provide basic goods and services to the population or by solving the very basic human problems. In other countries, it is the availability of the basic productive resources that drives entrepreneurial activities. Interestingly, some areas of resources abundance is characterized by limited entrepreneurial activities while acute human problems are also seen to continue to exist with people only saving excess liquidity in the banks. On the basis of these paradoxes, this paper is designed to investigate the determinants of the demand for entrepreneurship in Cameroon.

2. Literature Review

Economic development impacts entrepreneurship indirectly through other factors of demand for entrepreneurship. The influence of economic growth or development on entrepreneurship is ambiguous given that it can be positive or negative depending on the stage of economic development and the nature of the intermediate factors through which it affects entrepreneurship. Carree and Thurik (1996) argued that economic growth impacts negatively on self-employment. To them economic development tends to increase wage levels and usually guarantee a better system of social security. An increase in level of wages increases the opportunity cost for self-employment and makes self-employment less attractive (EIM/ENRS, 1996). Lynn (1991) showed that fewer people are willing to leave secured jobs that offer high wages in the context of increasing economic development. In this context, average entrepreneurs are forced to become employees in existing businesses (Lucas, 1978).

A positive relationship between economic development and self-employment rates in a good number of developed countries was observed since the 1970s (Storey, 1999; Carre, Van Stel, Thurik, & Wennekers, 2001). This is explained by the fact that economic development is usually accompanied by the establishment of new industries. Here, small firms benefit from new technologies which have reduced economies of large scale production (Acs & Audretsch, 1993). Small firms are better placed to implement new technologies and to supply a variety of goods and services which are demanded with increasing prosperity (Carlsson, 1989). Also, Blanchflower and Oswald (1998) hold that increasing
economic development leads to a higher need of self-realization/actualization which is better achieved through self-employment or entrepreneurship.

Wennekers and Thurik (1999) hold that there is a bi-directional relationship between advancement in technologies and the demand for entrepreneurship. In the first place, technological advancement creates opportunities for entrepreneurship and secondly, small firms develop and spread technological innovations (OECD, 1996). Technological development influences other factors of demand for entrepreneurship. For example, application of information technology promotes small scale production via cheaper capital goods and possibility for flexible specialization (Piore & Sabel, 1984; Carlsson, 1989; and Loveman & Sengenberger, 1991).

Also, advances in information technology create better access to information and communication devices with potential to facilitate small business ventures and to enhance the competitiveness of existing businesses. Technological advancement causes a reallocation of resources towards new products necessitating an increase demand for entrepreneurship (Carlsson, 1988). This makes it such that many new successful businesses tend to exist in high technology sectors (Krugman, 1991; OECD, 1998). However, with high cost of research and development, technological advancement can be a barrier for entrepreneurship and new businesses development (EIM/ENRS, 1995).

Verheul et al. (2002) observed that globalisation integrates world markets and offers the opportunity for entrepreneurs to take advantage of economies for scale especially given that trade barriers disappear with this phenomenon. Through globalisation, people are exposed to a variety of goods and services from other parts of the world leading to an increase in diverse consumer demands.

Economic development, technological development and globalization affect the industrial structure of an economy. Acs, Audretsch and Evans (1994) hold that different stages of economic development are associated with deferent levels of self-development. At the stage of agricultural production and small scale manufacturing, the rate of self-employment is high. A high density of business activities brings about new ideas, cooperation and competition amongst businesses (Audretsch & Thurik, 2001) and cause many small firms to specialize in different stages or phases of production process (OECD, 1996).

Although Cameroon is endowed with abundant natural resources, steady economic growth, and a key location in central Africa, the investment climate is plagued by endemic corruption and a heavy-handed and slow moving bureaucracy which has compromised the growth of new businesses and progress of existing ones (US Department of State, 2014), with international watch dogs ranking the country amongst the least in terms of indices of doing business. Entrepreneurial activities would hardly flourish in a climate such as this. The country need an enormous effort both public and private to be able to ensure that entrepreneurship thrives in the national economy.

Though the African Development Bank Group and OECD (2007) reported progress in Cameroon’s macroeconomic indicators in 2016, with real GDP growth rising to 3.8 per cent in 2006 from 2.8 percent recorded in 2005, the contribution of new business creation was quite insignificant. According to Admasu (2016), private investment remains relatively weak in Sub-Saharan Africa despite recent
improvements in investment opportunities and infrastructure.

Mina et al. (2011) observed that limited access of entrepreneurs to credit constrains the creation and growth of private firms. In Africa, access to credit is particularly limited for small and medium enterprises (SMEs) due to unclear property rights and the lack of assets that can be used as collateral. In sharp contrast with many Asian countries, African countries have been unable to mobilize local savings for the growth of the private sector (Nubong et al., 2012).

Michelline and Leo (2000) found out that entrepreneurial activities are undertaken mostly by individuals who are able to increase their entrepreneurial abilities and reduce their risks through a learning process involving age, apprenticeship and professional experience. They noted that the learning process takes place before and after entry into the industry as the firm grows larger.

Kew et al. (2015) noted that Sub-Saharan Africa has experienced more than a decade of consistently high growth but the benefits have not been shared by all. According to them, this sector that has the potential to reduce poverty through opening up of new and better job opportunities for all segments of the population. An interesting finding by these authors was that youth businesses have an overall positive impact on the livelihood of the entrepreneur in most countries.

Paula and Wim (2014) observed that many households in Africa diversify their labour into non-farm entrepreneurial activities due to both push and pull factors. According to them, Push factors are related to the risk of farming under imperfect and missing markets for credit and insurance, and include shocks, surplus household labour and seasonality in agriculture, while pull factors that allow households to seize business opportunities are related to the access to credit, household wealth and education. Based on the work of Heiko, Christian and Rolf (2014), student start-ups are a significant part of overall university entrepreneurship. Yet, very little is known about the determinants of this type of start-ups and, specifically, the relevance of context effects. The analysis reveals that individual and contextual determinants influence students’ propensity to start a business. While peoples’ individual characteristics are most important, the organizational and regional contexts also play a role and have a differentiated effect, depending on the source of the venture idea and the stage of its development.

In addressing the question of what determines entrepreneurship in developing countries, Carla et al. (2015) cautioned that policy makers in developing economies should be careful when using evidence from developed countries to design entrepreneurship-promoting policies. This is basically because regional compatibility and contextual reliability are key in ensuring effectiveness of policy frameworks.

Paula and Wim (2014) further observed that Africa is not only the poorest and most rural continent in the world; it is also the most youthful in terms of population structure. They provided empirical evidence on (i) the prevalence of enterprises operated by young adults and the contribution they make to rural household income, the (ii) determinants of enterprise operation, and (iii) labour productivity in enterprises operated by young owners. In doing so, they found out that young adults present a lower share of enterprise owners and derive less income from it.

Wang and Pane (2014) revealed the importance of African students’ training abroad in the fields of
economics and engineering sciences to develop their entrepreneurial spirit and the need for African governments to create a suitable economic environment to further stimulate the entrepreneurial spirit of these students when they return to Africa. Drawing from the Chinese experience, Wang and Pane (2014) observe that it is the economic reform of 1978 that promoted the development of private enterprises. Valentine and Angela (2017) highlighted the role of inflation rate, foreign direct investments, access to finance and total tax rate as the main macroeconomic determinants of entrepreneurship in the European Union, with individual business-related factors considered in the analysis to have a significant impact on total entrepreneurship rate. With growing economic, financial and political crisis, they called on government to re-focus on entrepreneurship drivers for economic progress. In examining the determinants of entrepreneurship in the United State, Audretsch, Roy, Ingrid and Sander (n.d.) put forth the Eclectic Theory with the purpose of providing a unified framework for its understanding and analyses. The Eclectic Theory of entrepreneurship integrates the different strands from the relevant fields into a unifying and coherent framework, with the demand and supply factors on opposing sites. Kruger (2004) emphasizes that entrepreneurship begins with action, the creation of a new organisation including the antecedents to its creation, inter alia, scanning the environment for opportunity, the identification of the opportunity to be pursued, the evaluation of the feasibility of the new venture, while the second dimension of the entrepreneurship paradigm is venture performance. While Richard Cantillon is credited for introducing the concept of entrepreneurship in which he divided the population into two classes viz the entrepreneurs and hired labour, he did not clearly distinguish between the two. However, the contribution of JB Say clarified the functions of the entrepreneur (Chepurenko, 2015; Jens, Rasmus, & Nikolaj, 2008). Cuervo et al. (n.d.) noted that the creation of a country’s wealth and dynamism depends upon the competitiveness of its firms and this, in turn, relies fundamentally on the capabilities of its entrepreneurs and managers. According to them, the businessmen that manage economic activity are, in the strictest sense, the manager and the entrepreneur, the latter in a double sense: the individual businessman (independent) and the “corporate entrepreneur” who, without participating significantly in terms of capital, controls the firm. The work of Shane and Venkataraman (2000) revealed that the entrepreneurial function implies the discovery, assessment and exploitation of opportunities. In other words, new products, services or production processes that result in new strategies and organizational forms and also new markets for products and inputs that did not previously exist.

3. Methodology
In identifying the determinants of the demand for entrepreneurship in Cameroon, a demand for entrepreneurship model is specified with insights from the Eclectic Theory of entrepreneurship (Audretsch, Roy, Ingrid, & Sander, n.d.). According to the theory, entrepreneurship demand is a
function of level of technology, globalisation and economic development. These factors have a significant effect on the industrial structure and the diversity in market demand and therefore on entrepreneurial opportunities. An augmented equation of demand for entrepreneurship by Verheul and Thurik (2001) has been adopted for the study by including the market size. Bull and Garry (1993) emphasized that the conceptualization of entrepreneurship from the Schumpeterian school is more appropriate though not significant in predicting the behaviours of entrepreneurs in the future.

A causal research design is used for the analysis since it allows for the examination of cause effect interaction between a set of independent variables and the dependent variable. Data were collected from the World Development Indicators, WDI (2016) and the KOF globalisation index database for the period 1980 to 2017. This time frame was suitable for the analysis since Cameroon has experienced several economic occurrences that may have had significant impact on the level of entrepreneurship in particular and economic activities in general. Thus, the demand for entrepreneurship in Cameroon is specified as follows:

\[
ENT = a_0 + a_1 TFP + a_2 IND + a_3 GLOB + a_4 ECODEV + a_5 POPG
\]

Where, ENT is the demand for entrepreneurship, captured by the Gross Domestic Product (GDP) of the country. Jens, Rasmus and Nikolaj (2008) argued that entrepreneurship is best considered a multifaceted concept, and that this empirical measures reflect different aspects of entrepreneurship, TFP is the level of technology measured by the total factor productivity, GLOB represents the globalisation index of the country, ECODEV is level of economic development measured by Human Development Index (HDI), POPG refers to the market size measured by the population growth rate, and, IND represents industrialisation which is measured by the percentage contribution of industrial sector to national income.

Data was analysed using the Johansen co-integration procedures and the error correction mechanism (ECM). This estimation technique was suitable as it accommodates non stationary variables and provides information about the short run and long run dynamics of the variables. According to Hendry and Morgan (1995), by including differenced value of the variable and their lagged value in a single equation, we obtain a one stage error correction mechanism with both the short run and long run coefficients simultaneously. A necessary condition for error correction specification is the existence of a long run equilibrium relationship among the variables (co-integration). This long run equilibrium relationship was therefore tested using the one stage Johansen co-integration procedures. Prior to the estimation, the characteristic of the variables were tested using the augmented dickey Fuller (ADF) unit root test.

4. Data Analysis

Results from the ADF unit root test reveals that all the variables achieve stationarity after first difference, implying that they are all integrated of order 1. This permits us to test the long run equilibrium relationship of the variables. No assumption on the trend and intercept of the variables was made and the summary results of the Johansen co-integration are presented in Table 1 below:
Table 1. Summary of Johansen Co-Integration Results

<table>
<thead>
<tr>
<th>Data Trend:</th>
<th>None</th>
<th>None</th>
<th>Linear</th>
<th>Linear</th>
<th>Quadratic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Type</td>
<td>No Intercept</td>
<td>Intercept</td>
<td>Intercept</td>
<td>intercept</td>
<td>Intercept</td>
</tr>
<tr>
<td></td>
<td>No Trend</td>
<td>No Trend</td>
<td>No Trend</td>
<td>Trend</td>
<td>Trend</td>
</tr>
<tr>
<td>Trace</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Max-Eig</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

*Source: Author (2018).*

Results from Table 1 reveal that there are at least 4 co-integrating equations irrespective of the assumption on the data trend or test type based on the Trace and Maximum Eigen Value Criteria. The first, second and fourth assumptions show that there are 5 co-integrating equations whereas the assumption of quadratic trend and intercept shows that there are 6 co-integrating equations in the model. Therefore, we can confidently assert that there is co-integration implying that there exists a long run equilibrium relationship between the variable, justifying the use of the ECM.

Table 2. The Error Correction Model Results

Dependent variable: D(LGDP)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(TFP)</td>
<td>-0.187293</td>
<td>0.220973</td>
<td>-0.847585</td>
<td>0.4058</td>
</tr>
<tr>
<td>D(IND)</td>
<td>0.001768*</td>
<td>0.000982</td>
<td>1.800112</td>
<td>0.0856</td>
</tr>
<tr>
<td>D(GLOB)</td>
<td>-0.005365</td>
<td>0.003373</td>
<td>-1.590700</td>
<td>0.1259</td>
</tr>
<tr>
<td>D(ECODEV)</td>
<td>0.054453</td>
<td>0.198954</td>
<td>0.273696</td>
<td>0.7869</td>
</tr>
<tr>
<td>D(POPG)</td>
<td>-0.273662</td>
<td>0.755002</td>
<td>-0.362466</td>
<td>0.7205</td>
</tr>
<tr>
<td>ECT</td>
<td>0.164509*</td>
<td>0.057526</td>
<td>-2.859720</td>
<td>0.0091</td>
</tr>
<tr>
<td>TFP(-1)</td>
<td>*<em>0.002857</em></td>
<td>0.001042</td>
<td>2.741796</td>
<td>0.0119</td>
</tr>
<tr>
<td>IND(-1)</td>
<td><em>0.009917</em></td>
<td>0.000102</td>
<td>2.741796</td>
<td>0.0119</td>
</tr>
<tr>
<td>GLOB(-1)</td>
<td>*</td>
<td>0.004254</td>
<td>-20331044</td>
<td>0.0293</td>
</tr>
<tr>
<td>ECODEV(-1)</td>
<td>0.068011</td>
<td>0.204459</td>
<td>0.332638</td>
<td>0.7426</td>
</tr>
<tr>
<td>POPG(-1)</td>
<td>0.553234*</td>
<td>0.213692</td>
<td>-2.588936</td>
<td>0.0168</td>
</tr>
<tr>
<td>C</td>
<td>6.391613</td>
<td>1.953084</td>
<td>3.272574</td>
<td>0.0035</td>
</tr>
</tbody>
</table>

*Source: Author, (2018).*

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Results from Table 2 show that the Error Correction Term (ECT) is negative and significant at 5%. This implies that demand for entrepreneurship will always converge to its long run equilibrium trajectory after a shock, confirming the error mechanism with a coefficient of -0.165. In other words, 16.45% of the disequilibrium caused by a shock during the current year will be re-absorbed the following year. It will therefore take about 6 years for a shock on demand for entrepreneurship in Cameroon to be completely eradicated and for the variable to come back to its long run equilibrium, implying a low speed of adjustment of demand for entrepreneurship in Cameroon.

Technology has a negative effect on demand for entrepreneurship in the short run. In the long run, the effect of technology becomes positive. However, both coefficients are statistically insignificant. Industrialisation was found to exert a positive and significant effect on demand for entrepreneurship in both the short and long run. In statistical terms, a unit increase in industrialisation rate will result in 0.002% increase in demand for entrepreneurship. This result can be explained by the fact that increase in industrialisation will bring about increase in the rate of creation of small firms clustering around industrialised regions to service components of the different production processes and to benefit from external economies of scale.

Contrary to expectation, globalisation has a negative effect on demand for entrepreneurship in both the short run and long run implying that an increase in the country openness to the global market reduces the demand for entrepreneurship. However, only the long run relationship is statistically significant. This finding is in line with Vukenkeng (2017) who found out that of all the CEMAC countries, it is only in Cameroon that globalisation affects entrepreneurship negatively. The inability of the Cameroon production sector to withstand foreign competition may lead to the eviction of local enterprises from the market.

The coefficients of economic development are all positive. Economic development is accompanied by an increase in per capita income which leads to increase in demand for diversified and specialised goods. There is huge number of business opportunities accompanying the rise of per capita income which can bring about an increase in the rate of new business creation. However, the result was found to be insignificant.

Market size as measured by the population growth rate has a negative impact on demand for entrepreneurship in the short and long run. However, only the long run result was statistically significant. This implies that an increase in the growth rate of total population will result in a reduction in demand for entrepreneurship. Population growth may result into high dependency ratio and low per capita income if the population increases faster than national output.

In order to ensure robustness of the results, the histogram of normality of residuals as well as the Breusch-Pagan-Godfrey test was conducted and results show that the residuals are normally distributed and the model is homoscedastic.
5. Conclusion
Understanding the determinants of entrepreneurship in an emerging country like Cameroon is critical in adopting policy for the promotion of entrepreneurship. Based on the eclectic theory, an empirical model was developed to understand the dynamics of entrepreneurship as well as the factors that affect it in Cameroon. Using the Johansen co-integration procedures and the Error Correction Mechanism (ECM), the empirical investigation of the determinants of entrepreneurship in Cameroon reveals that industrialisation positively affects the demand for entrepreneurship while globalisation and population growth significantly compromises the demand for entrepreneurship.

In line with the above findings, there is need for the Cameroon government to control for the population growth and adopt policy to mitigate the negative effects of globalisation on domestic entrepreneurship. Such a policy may require that the government should adopt tax free measures for local entrepreneurs in strategic sectors of production over a certain period of time while also regulating the external environment by discouraging dumping in sectors where the local entrepreneurs are thriving.

Measures aimed at promoting the rate of industrialisation in the country should be adopted because our findings reveal that when there is industrial progress, there is high opportunity for local entrepreneurs to engage in productive activities so as to provide the needs of the growing industries. While recognizing the role of population expansion in providing a market for entrepreneurial activities, excessive population expansion can be a liability given that with low national income per head, they become a burden to the struggling entrepreneurial class. Thus, a relevant policy that does not compromise the need for a market is necessary through a careful study of the characteristics of the population.

Understanding the determinants of entrepreneurship in Cameroon is critical at the moment the government is doing everything to improve on the economic performance of the economy. Entrepreneurship is necessary for industrial progress while industrial progress is also necessary for entrepreneurship development. This implies a bi-directional relationship between the two variables. Measures that promote entrepreneurship will equally promote industrialization in Cameroon.

References
Audretsch, D. B., & Thurik, A. R. (2001). What is new about the new economy: Sources of growth in
the managed and entrepreneurial economies, Industrial and Corporate Change.


Economics, 106, 439. https://doi.org/10.1017/CBO9781139170116


US Department of State. (2014). *Investment Climate Statement; Diplomacy in Action*.


