GLOBAL JOURNAL OF COMMERCE & MANAGEMENT PERSPECTIVE
(Published By: Global Institute for Research & Education)
www.gifre.org

The Impact of Entrepreneurship on Economic Growth in South Africa

Vincent Kagame Sebikari
Pretoria, South Africa

Abstract

Studies on the relationship between entrepreneurship and economic mainly uses situation analysis and surveys. Most of these studies have not considered the endogenous relationship between the two. To address such situation, the paper develops an econometric model:

$$\log Y = \log\alpha + \beta \log K + \varphi \log L + \theta \log E + \varepsilon$$

The paper consists of two fundamental questions regarding the link between entrepreneurship and economic growth. The first deals with the endogenous relationship between entrepreneurship and growth. Suggesting more entrepreneurship could mean more economic growth; economic growth in turn could affect the individual arbitrage between different occupations including entrepreneurship and expect payoffs. The second question is concerned with the types of activities to which the individual directs talent in South Africa.

Approximately 500 face-to-face interviews with the entrepreneurs in an attempt to ascertain "how entrepreneurship is good for growth?" were carried out in Gauteng province.

Keywords: Entrepreneurship, Economic Growth, Growth Model, Development, Self-Employment, Gauteng, South Africa.

1.1 INTRODUCTION

Entrepreneurship is one of the drivers of economic growth (Audretsch, & Keilbach, 2003; Carree & Thurik, 2003; Ekpe, 2011; Wilhelmina & Chimucheka, 2014; Van Vuuren & Groenewald, 2007; Stephens & Partrdge, 2011; World Bank, 2004; Van Stel et al. 2005; Acs & Audretsch, 2003). Numerous authors have also highlighted other many factors that influence the speed of economic progress; such factors may include entrepreneurship culture, education and training, access to funding, high investment levels in physical and human capital, strong incentives to save, invest, and increase productivity (including property rights), competitive markets, low inflation, political stability, free tradeclimate, education, saving propensity, presence of seaports (Freytag & Thurik, 2007; Bleaney & Nishiyama, 2002; Robson, 2007).

Entrepreneurship is an important factor for economic growth and development through job creation, innovation (Audretch & Thurik, 2001; Global Entrepreneurship Monitor (GEM) South Africa Report, 2010). It is recognised that entrepreneurship plays an important, if not critical, role in the economic development of a county. This is true for South Africa (CDE Research, 2004).

The main focus is the contribution of entrepreneurship and private sector factors as drivers of economic growth in South Africa (Ncube & Tshuma, 2010). South Africa has a mixed economy characterised by a high rate of poverty and a relatively low GDP per capita. South Africa's long decline in the rate of self employment has been attributed to regulatory burden, low rates of start up of entreprise, and level of economic development. With skills shortages and unemployment continue to be of great concern.According to the GEM South Africa Report 2010, South Africa ranked 27th out of 59 countries, with a total early stage entrepreneurship activity (TEA) rate of 8.9% being below the average 11.9% of all participating countries.

This paper looks at factors that create a good atmosphere for enterprises to grow and the general entrepreneurship activity at large leading to economic growth. A high level of entrepreneurial activity in any country has the propensity to make a direct and positive impact on the elevation of unemployment and related concerns (Van Vuuren, 2005). It is of great importance to note that the combination of enterprises for example small, micro, medium sized as well as large national and international firms, in determining the state of the economy (Van Vuuren & Groenewald, 2007; Nieman & Nieuwenhuizen, 2009).

1.2 Problem Statements

Scholars have suggested that entrepreneurship drives economic growth (Zoltan, 2007; Mueller, 2007; Audretsch & Keilbach, 2004; van Stel, Carree & Thurik, 2005). Most of these studies argue that entrepreneurship create new businesses and jobs, intensify competition and may increase productivity and hence positively contribute to growth. However, other schools of thoughts have revealed that growth is one which causes improvement in entrepreneurship (Larroulet & Couyoumdjian, 2009). Proponents of this assertion argue that through growth leading to high income, individuals will be able to invest in their education hence improving their entrepreneurships kills. In addition, studies on the relationship between entrepreneurship and economic mainly uses situation analysis and surveys. These studies have not considered the endogenous relationship existing between the two. To address such situation, the paper uses an econometric model developed by (Audretsch & Keilbach, 2003). Hence, it is important to investigate this relationship for the case of South Africa. Consequently, provide immediate solution and policy direction for policy makers in promoting entrepreneurship and economic growth and hence reducing poverty in South Africa.

Dejardin (2000) argued that fostering economic growth, entrepreneurship affects the whole economy, mainly its effects on labour markets. More growth implies an increase in profit opportunities for potential entrepreneurs but also it could lead to inflationary pressure on wages. More so, finding new combinations of factors of production is a process of entrepreneurial discovery that will become the engine that drives economic growth (Dejardin 2000; Jääskeläinen 2000; Thurik & Wennekers, 2001).

1.3 Research objectives

The paper focuses on the following main objectives

- To explore whether there is a relationship between entrepreneurship and economic growth in South Africa;
- To examine the contribution of the level of entrepreneurship and general private sector factors as drivers of economic growth;
- To explore differences in national levels and types of entrepreneurship and to link these to job creation and economic growth.

1.4 Importance / benefits of study

This paper seeks to make contribution to literature. Based on the background, improvement in entrepreneurship skills in South African remain limited and the desire to achieve high economic growth is an overall macroeconomic objective for the government of South Africa. Specifically, entrepreneurship and private sector business promotion has been argued that is an engine for economic growth, Hence finding factors that can assist in improving business environment is fundamental to economic growth, This however is important if a relationship is first established between entrepreneurship and economic growth.

Although, there have been many related studies in this area, to our knowledge an econometric understanding of the relationship between entrepreneurship and economic growth in South Africa have not been conducted so far, Hence, the empirical findings will contribute to the literature existing on emerging economies in Africa.

1.5 Hypothesis

According to Cooper & Schindler (2011) hypothesis guides the direction of a study. Therefore the following hypothesis provide an explanation whether there is a relationship between entrepreneurship and economic growth. Specifically, the paper analyses the increased importance of entrepreneurship during economic development in South Africa.

2. LITERATURE REVIEW

2.1*Entrepreneurship*

Various academics and researchers have come up with many defintions of entrepreneurship. Entrepreneurship involve the presence of opportunities and the presence of enterprising individuals (Refaat, 2009). According to Sebikari (2014a) entrepreneurship is the emergence and growth of new enterprises. Moving the argument along, Zimmerer & Scarborough (2008) suggests that entrepreneurship is the creation of new businesses in order to make a profit while Refaat (2009) explains entrepreneurship as an activity that involve the discovery, explotitation of opportunities to introduce new goods and services. It is evident that no clear definition of entrepreneurship.

Zoltan (2007) explained that there are numerous ways to measure entrepreneurial activity. These activities are opportunity and necessity based. Opportunity entrepreneurships differ in necessity by sector of industry and with respect to growth aspiration. Self-employment is widely viewed as an important engine of economic and employment growth (Lehutso-Phooko & Hlekiso, 2005; Audretsch & Keilbach, 2004).

2.2 *Economic Growth Model*

There are different models that explain growth and many questions that explain the sources of economic growth. According to Aghion & Howitt (2009) economic growth is measured as the annual rate of increase in a country's gross domestic product. The most competitive nations are those with high level of entrepreneurial activity (The Entrepreneurial Dialogues, 2011). Numerous methods are used to measure economic growth of a nation (Statistics South Africa, 2014). The most widely used measure of entrepreneurship is the TEA (Total Entrepreneurial Activity) or early stage entrepreneurial activity index. Van Praag & Versloot (2007) explained that entrepreneurs have a very impotrant role in the economy. They create employment, contribute to productivity growth, produce and commercialise innovation.

According to Acs & Armington (2006) economic analysis is the ability to analysis the linkages between entrepreneurship and level of economic activity. A conceptual model was developed to analyse the increased importance of entrepreneurship during economic development in South Africa:

$$\log Y = \log\alpha + \beta \log K + \varphi \log L + \theta \log E + \varepsilon .$$

Where α, β, φ, θ are constants; Y = output growth; K = capital; L = labour; E denotes entrepreneurship and ε represents a white noise error term.

- *Capital* is expressed as number of employees engaged in economic development.
- *Labour* expressed as the stock of capital used in the manufacturing of goods and services.
- *Entrepreneurship* is computed as the number of business startups in Gauteng province between 2004 -2013.
- ε a white noise error term (Gujarati, 2004): represent all those factors that are not taken into account (Sebikari, 2014b).

- This equation assumes: $K + L + E = Y$. This implies that output growth can be derived, if any three factors are known.
- $\log Y$ is the natural logarithm of Y

Various studies measure entrepreneurship in terms of the relative share of economic activity accounted for by small firms, other studies use data on self-employment, firm start-ups as an indicator of entrepreneurial activities (Carree & Thurik, 2003).

Zoltan (2007) suggests that analyse of economic growth tend to focus on large corporations and neglect the innovations and competition that small start-ups contribute to the overall economy. For large corporations, the ability to affect national economic growth is influenced by general business conditions. These corporations influence economic growth primarily through the construction of new enterprises, which in turn create job opportunities.

2.3 Key constraints to entrepreneurial activity in South Africa

G 20 entrepreneurship barometer (2011) suggests that there is not enough support for business creation in South Africa due a sophisticated financial sector and high quality business acumen. New business density remain low hindering rapid growth, this is attributed to the economic downturn. There is low savings, investment, low employment, and slow productivity growth in the country. The level of uncertainty for the pace of regulatory change hinders the development of new entrepreneurs (G 20 entrepreneurship barometer, 2011).

Access to funding has been a major challenge to entrepreneurs in South Africa. Ernst & Young survey (2011) suggest a widespread deterioration in accessing funding by South Africa entrepreneurs. A divergence may be due to cultural bias, derivate ideas or lack of information, red tape can also presents challenges when it comes to accessing sources of funding.

3. RESEARCH DESIGN AND METHODS

The paper uses econometric analysis to investigate first, the relationship between entrepreneurship and economic growth using the model developed by Granger (1989) and Johansen (1991). After establishing the relationship then, the paper proceeds to estimate the growth function including the entrepreneurship. The model of estimation is based on the simple model developed by Audretsch & Keilbach (2003).

Furthermore, entrepreneurship issues are assessed depending on the empirical results. In this case, self employment data is used to identify the contribution of the level of entrepreneurship and general private sector factors as drivers of economic growth. The results of the Survey of Employers and the Self-employed (SESE) conducted by Statistics South Africa (Stats SA) in the third quarter of 2009 provide information on the characteristics of micro- and small businesses in South Africa.

The research design used for SESE was based on a household based survey, consisting of two stages. The first stage involved identifying individuals who were running businesses through the Quarterly Labour Force Survey (QLFS). The second stage involved interviewing the owners of these businesses, to determine the nature of their business and their contribution to the economy.

Adding point further, (Thurik & Wennekers, 2001; Friijs et al. 2002; Van Stel et al. 2005; Wennekers et al. 2005) suggests an increase in the importance of entrepreneurship as a feature of the economy. In order to determine the relationship between entrepreneurial activity and national economic growth, the data used is on people involved in setting up new businesses in South Africa as well as those who own and manage the running of businesses. The data captures information on entrepreneurial attitudes, process of entrepreneurship (early stage to established firms).

3.1 *Data Source*

Existing data is analysed by means of a literature study. Doing Business (2011, 2012, 2013), GEM South African Report (2004, 2006, 2010, 2011, 2012, 2013) data on start-up and new firm activity in South Africa (20044–2012), Annual prevalence rates of early-stage entrepreneurial activity in South Africa (1994-2013) and relative contribution of opportunity and necessity motivation to early-stage entrepreneurial activity in South Africa (2002–2012) are used.

Approximately 500 face-to-face interviews with the entrepreneurs in an attempt to ascertain "how entrepreneurship is good for growth?" were carried out. A global survey on entrepreneurship, the global competitiveness report (GCR), the Global Entrepreneurship monitor (GEM), total entrepreneurial activity, growth of GDP, per capita income, and the growth competitiveness index data are also used to identify the type of activities existing in South Africa at different levels of growth.

The population and sample size was as follows:

Table 1: **Population and Sample size**

Category	**Population size**	**Sample size**
Manufacturing	150	150
Transportation	100	100
Communications	80	80
Banking	20	20
Services and tourism	150	150
Total	500	500

The manufacturing continues to contribute significantly to South Africa's economy (Stats SA, 2014). Gauteng, Kwazulu-Natal and Western Cape provinces, out the nine provinces contribute largely to the country's output growth.

3.2 *Limitation*

- Sample size was relatively low thus limits the generalization of the results. This is supported by Sebikari (2014c) who stated that reliability is affected by sample size;
- Low entrepreneurial capacity; and
- Lack of innovation capacity due to low skills and lack of specialization among entrepreneurs.

4. DISCUSSION OF THE FINDINGS

GEM (2010, 2011, 2012, 2013) research has shown that whites and Indians/Asians are substantially more likely to start a business than coloureds or black Africans. To a large extent, this is attributed to the legacy of South Africa's apartheid policies, which have had a fundamental impact on entrepreneurial and business related activities within large sections of the population. According to Sebikari (2014a) analysis of data reduces collected data into manageable size. This is supported by Copper & Schindler (2011). The findings are presented in the tables showing descriptive analysis.

Descriptive Statistics of Gender

The findings are shown in table 2;

Table 2: **Descriptive Statistics of Gender**

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	300	60	60	60
	Female	200	40	40	100.0
	Total	**500**	**100.0**	**100.0**	

Source: Primary Data, 2014

Table 2 shows that of the 500, there were 300 males (60%) and 200 females (40%). The findings show that the majority of the entrepreneurs were males. This supports GEM South Africa (2012) research that the males were more involved in entrepreneurship.

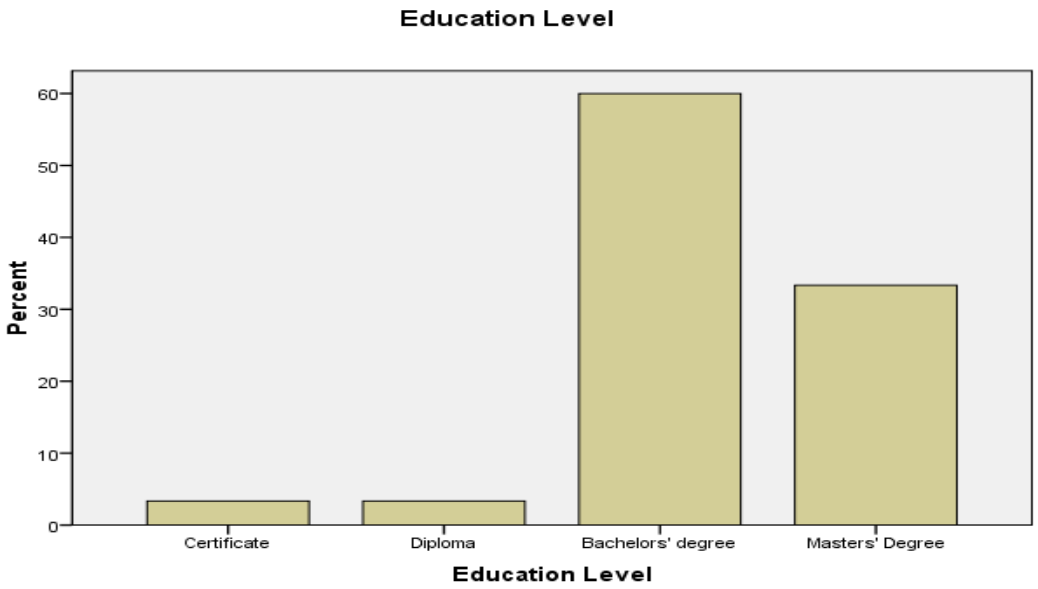

Fig. 1: **Descriptive Statistics of Education Level**

From figure 1above, 4% and 6% were certificate and diploma holders respectively, while 60% and 30% were bachelor's degree and master's degree holders respectively.

The findings regarding the relationship between entrepreneurship, capital, labour and economic growth are provided in (table 3) below;

Table 3: **Relationship between entrepreneurship, capital, labour and Economic growth**

		entrepreneurship	Capital & labour	Economic growth
entrepreneurship	Pearson Correlation	1	1.000**	.72**
	Sig. (2-tailed)		.000	.000
	N	500	500	500
Capital & labour	Pearson Correlation	1.000**	1	.72**
	Sig. (2-tailed)	.000		.000
	N	500	500	500
Economic growth	Pearson Correlation	.72**	.72**	1
	Sig. (2-tailed)	.000	.000	
	N	500	500	500

**. Correlation is significant at the 0.01 level (2-tailed).

Findings in table 3 show that there a strong positive relationship between entrepreneurship, capital, labour and economic growth shown by person correlation coefficient r=.72**, p=0.00. Therefore, this implies that as entrepreneurship, capital, and labour increases, economic growth will increase. Therefore, accordingly the hypothesis accepted.

5. CONCLUSIONS AND RECOMMODATIONS

Entreprepreneuship is critical for south Africa's future. According to (Van Vuuren & Groenewald, 2007; Dejardin 2000; Jääskeläinen 2000; Thurik & Wennekers, 2001; Stephens & Partrdge, 2011) entrepreneurship matters for growth. More entrepreneurs mean more growth, which in turn leads to more economic growth and development. It is necessary for the government to provide enabling environment to entrepreneurs in order to succeed in their respective entrepreneurial endeavours. According to Sebikari (2014c) entrepreneurship is imperative for both social and economic benefits thus more entrepreneurial training for unemployed young population. In addition, access to entrepreneurial information and advice is critical for emerging entrepreneurs. This implies failure to create an entrepreneurial environment may mean an economic penalty in terms of economic growth forgone. Further research is needed to assess the conceptual model for economic growth. Entrepreneurship matters for growth.

Acknowledgements

I would like to thank Dr.Wha-Suck Lee (Mkhulu) for providing me with the software's; I would like to express my gratitude to Dr.Mpilonhle Bongephiwe for prayers; Philasande Masina for the vision and encouragement. Last but not least, to entrepreneurs who participated in the face-to-face interviews.

REFERENCES

Acs, Z.J. & Armington, C. (2006). Entrepreneurship, Geography, and American Economic Growth. Cambridge University Press, New York, NY.

Acs, Z. J. & Audretsch, D. B. (2003). Innovation and technological change, In: Acs, Z. J. & Audretsch, D. B. (eds.) Handbook of Entrepreneurship Research, Boston: Kluwer Academic Publishers. [Accessed: 2014-04-02]

Aghion, P. & Howitt, P. (2009). The Economics of growth: The MIT Press Cambridge

Antonites, A. J. & Van Vuuren, J. J. (2005). Inducing Entrepreneurial Creativity, Innovation and Opportunity- Finding Skills [Accessed: 2014-04-05]

Audretch, D. B. & Thurik, A. R. (2001). What is new about the New Economy: Source of Growth in the Managed and Entrepreneurial Economics, Industrial and Corporate Change [Accessed: 2014-03-08].

Audretsch, D. B. & Keilbach, M. (2003). Entrepreneurship capital and economic performance Centre for Economic Policy Research, London. [Accessed: 2012-05-20]

Audretsch, D. B. & Keilbach, M. (2004). Entrepreneurship capital and economic performance, Regional studies [Accessed: 2014-06-08].

Carree, M. A. & Thurik, A. R. (2003). 'The impact of entrepreneurship on economic growth', In Acs, Z. J. & Audretsch, D.B. Handbook of Entrepreneurship Research: an Interdisciplinary Survey and Introduction, New York. [Accessed: 2013-04-08]

CDE Research, (2004). Supporting South Africa's emerging entrepreneurs [Online] Available from: http://www.cde.org.za [Viewed: 2013-03-20].

Couyoumdjian, P. & Larroulet, C. (2009). Entrepreneurship and Growth [Accessed: 2013-04-02].

Copper, D. R. & Schindler, P. S. (2011). Business Research Methods 11th ed. McGraw-Hill New York

de Groot, H. L. F., Nijkamp, P. & Stough, R. R. (2009). The Survey of Employers and the Self-employed (SESE) conducted by Statistics South Africa (Stats SA) in the third quarter of 2009. [Online] Available from: http://www.statssa.gov.za/publications.pdf. [Downloaded: 2013-04-04]

Dejardin, M. (2000). Entrepreneurship and Economic growth: An obvious conjunction. [Viewed: 2013-03-02]

Ekpe, I. (2011). Women entrepreneurs and economic development in Nigeria: Characteristics for success. *International Journal of Business and Social Sc*ience 2(1)

Freytag, A. & Thurik, R. (2007). Entrepreneurship and its determinants in a cross country settings, *Journal of Evolutionary Economics* [Accessed: 2013-02-28].

Global Entrepreneurship Monitor (GEM), (2004). London Business School, London, UK [Viewed: 2012-03-20].

Global Entrepreneurship Monitor (GEM), (2006). South African Report [Viewed: 2013-04-03].

Global Entrepreneurship Monitor (GEM), (2010). South African Report [Viewed: 2013-04-01].

Global Entrepreneurship Monitor (GEM), (2011). South African Report [Viewed: 2013-08-04].

Global Entrepreneurship Monitor (GEM), (2012). South African Report [Viewed: 2014-04-04].

Gujarati, D. N. (2004). Basic Econometrics 4th *ed.* The McGraw-Hill companies

Herrington, M., Kew, J. & Kew, P. (2009). Tracking Entrepreneurship in South Africa: a GEM Perspective, Graduate School of Business, University of Cape Town [Viewed: 2013-03-10].

High, J. (2004). "The roles of entrepreneurship in economic growth" [Accessed: 2013-04-01]

Lehutso-Phooko, M. & Hlekiso, T. (2005). South African Reserve Bank, Quarterly Bulletin June 2005. [Viewed: 2013-03-31]

Maas, G. & Herrington, M. (2006). Global Entrepreneurship Monitor (GEM): South African Executive Report, Graduate School of Business, University of Cape Town. [Viewed: 2013-03-11]

Muller, P. (2007). Exploiting entrepreneurial opportunities: The impact of Entrepreneurship on Growth, *Small Business Economics* [Viewed: 2013-03-11].

Organization for Economic Cooperation and development (OECD) Economic Surveys: South Africa. [Online] Available from: http//www.oecd.org. [Viewed: 2013-02-04]

Refaat, A. A. (2009). The necessity of engineering entrepreneurship education for developing economics: *International Journal of Education and Information Technologies* 2(3)

Robson. M. (2007). Explaining cross country variation in Entrepreneurship: The Role of Social Protection and Political Culture. *Comparative Labour and Policy Journal* [Accessed: 2013-04-01].

Romer, P. (2009). Entrepreneurship and Economics: Stanford University, USA.

Sebikari, K. V. (2014a). Critical analysis of the taxation policy on small businesses and entrepreneurial enterprises in Uganda, *Journal of Economics and Sustainable Development* 5(10)

Sebikari, K. V. (2014b). Entrepreneurial performance and small business enterprises in Uganda, *International Journal of Small Business and Entrepreneurship Research* 2(4)

Sebikari, K. V. (2014c). Analysis of the public policy on small business enterprises in Uganda, *Lambert Academic Publishing:* Germany

Sexton, D. L. & Kasarda, D. (1991). The state of the art of entrepreneurship, Boston MA: PW Kent.

Statistics South Africa (SSA), (2014). Measuring South Africa's Economic Growth: [Online] Available from: http://www.statssa.gov.za/articles/15%20measring%20GDP.pdf. [Downloaded: 2014-80-04]

Statistics South Africa (SSA), (2001). Labour force survey: Statistical release, Pretoria. [Online] Available from: http://www.statssa.gov.za/publications.pdf. [Downloaded: 2013-04-04]

Statistics South Africa (SSA), (2011). Labour force survey: Statistical release, Pretoria. [Online] Available from: http://www.statssa.gov.za/publications.pdf. [Downloaded: 2014-04-04]

Statistics South Africa (SSA), (2007). [Online] Available from: http:// www.statssa.gov.za/publications/P0210/P0210 September2007.pdf. [Viewed: 2014-05-03]

Stephens, H. M. & Partridge, M. D. (2011). Do Entrepreneurs Enhance Economic Growth in Lagging Regions? Growth and Change [Accessed: 2014-03-01].

The Entrepreneurial Dialogues, (2011). The state of entrepreneurship in South Africa: [Viewed 2012-05-17 2012], available from: http://www.gibs.co.za/SiteResources/documents/The%20Entrepreneurial%20Dialogues%20-%20State%20of%20Entrepreneurship%20in%20South%20Africa.pdf

Van Stel, A., Carree, M. & Thurik, R. (2005). The effect of entrepreneurial activity on national economic growth, *Small Business Economics* [Accessed: 2013-02-20].

Van Vuuren, J. J. & Groenewald, D. (2007). A Critical Analysis of the influence of Start-Up Factors in small Businesses and Entrepreneurial ventures in SA. [Accessed: 2014-04-01]

Van Praag, M.C. & Versloot, P.H. (2007). What is the value of entrepreneurship? A review of recent research: *Small Business Economics* 29 (4), 351–382.

Wilhelmina, S. & Chimucheka, T. 2014. Entrepreneurship, Economic Growth and Entrepreneurship Theories: *Mediterranean Journal of social Sciences* 5 (10)

Zimmerer, T. W & Scarbourough, N. M. 2008. Essentials of entrepreneurship and small business management. Prentice Hall.

Zoltan, A. J. (2007). How is Entrepreneurship good? The 25th Economic conference of progress foundation, Great Barrington, Massachusetts [Viewed: 2013-03-31].