

# Determinants of Success of Small Business: A Survey-Based Study in Kuliyaipitiya Divisional Secretariat of Sri Lanka<sup>1</sup>

Dr. J. G. Sri Ranjith<sup>2</sup>, Dr. O. G Dayaratna Banda<sup>3</sup>

---

## ARTICLE INFO

Available Online June 2014

Key words:

Small Business;

Entrepreneur;

Regional;

Economic Development;

Sri Lanka.

## ABSTRACT

This study primarily aims to examine the determinants of the success of small business. Kuliyaipitiya region in Sri Lanka was selected to carry out this research. The results show number of key significant factors for the success of small business. These factors are the family background of the entrepreneur, ability to make decisions, level of training and the amount of money invested on the business. The results indicate that these qualities of entrepreneur tend to be crucially important for the success of the business. The models estimated for the two DS divisional areas, Kuliyaipitiya East and West, verify the importance of spatial differences. Therefore, it can be concluded that development of entrepreneurial skills of entrepreneur in small and medium industries is crucial for the success of business, when qualities of entrepreneurs are contextualized in urban settings where there is greater population density.

---

## Introduction

As a developing country Sri Lanka has been focusing on achieving its development goals through promoting private sector businesses since late 1970s. With the country's open market economic policy measures, many new business opportunities emerged which attracted FDI (Foreign Direct Investment) and to a few large scale domestic investors. Consequently Sri Lanka became a country that has the highest levels of regional inequality in South Asia (ILO & ILS, 2012; ADB, 2013). Growth in regional inequality is increasing as more prosperous regions take advantage of the cessation of hostilities in 2009 and capture an increasing flow of remittances and direct foreign investment into the country. So far this aspect of economic development has been studied by many researchers and a substantial volume of literature is available for the attention of policy makers and practitioners. However, much of the direct benefits and trickle down effects of this development process have been concentrated into a few urban areas only. A large segment of population living in rural and suburban areas is still at the margin or having no access to benefit from macro level policy changes and central government development policies. This fact was emphasized by Narampanawa *et al.*, mentioning that while short-term complementary policies are needed to compensate vulnerable income groups, long-term policies are needed to make gains from trade liberalization more inclusive and equitable to maintain economic and political stability in Sri Lanka (Narampanawa, Bandara, & Selvanathan, 2011). Nevertheless the small scale and micro level enterprises in the rest of the country has no clear support or systematic policy designs in place from the main development policy. The failure to develop small industry in post independent Sri Lanka may hence be attributed as one of the main reasons for this failure in economic policies of government (Gamage, 2003). As a result currently small entrepreneurship in Sri Lanka faces a lot of difficulties and uncertainty with regard to financial, marketing, cost of production, skilled labor and technological progress. Therefore small-scale industries seem to have ignored and their development potentials of both locally and nationally are yet to be realized. The fact is true even before and post-war periods in Sri Lanka as a result the economy is currently approaching to be the highest vulnerable country among other regional economies in Asia to external shocks, economic resilience and internal economic instability.

Small business sector is the backbone of our economy and more importantly, they are at the level of exports too. Of more than 4000 of Sri Lankan export firms, 75 percent are small business firms (EDB, 2014). Therefore policy makers, practitioners and researchers in all relevant institutions have a huge responsibility to groom small businesses to become large scale export firms which is essential for economic development

---

<sup>1</sup>We are grateful to the University of Peradeniya, Sri Lanka for the research grant 2012- No. RG/2012/29/A

<sup>2</sup> Senior Lecturer, Department of Economics and Statistics, University of Peradeniya, Sri Lanka, Email: sri\_ranjith@hotmail.com.

<sup>3</sup> Senior Lecturer, Department of Economics and Statistics, University of Peradeniya, Sri Lanka, Email: dayab@pdn.ac.lk.

in Sri Lanka. Apart from many other arguments in favor of small businesses, local small businesses are seen as being more dynamic, innovative and have higher labor absorptive capacities than their corporate counterparts. The experience of developed countries show that local small businesses are the most important economic development driving force that leading to form a domestic industrial base with resilient to any form of external shocks. Therefore, striving for the growth and competitiveness of the Small and Medium Enterprise (SME) sector in Sri Lanka has often been identified as imperative in order to provide more employment though job quality is lower than in large business, bridge regional growth disparities, and ensure that post-war growth is inclusive and widespread (Perera & Wijesinghe, 2011). Currently there are over 18,000 companies operating in Sri Lanka of which about 91% are small and medium enterprises (World Bank, 2011). Development of self-employment at grassroots levels has been a major policy thrust of the governments since late 1960s in Sri Lanka. Despite the fact, the country has apparently failed to exploit the development potentials of this sector. The current policy stance of the Sri Lankan government has drawn attention to promote small businesses through institutional facilitation and providing infrastructure, implementing programs and formulating strategic plans at national and various local government levels. Over the last few decades there have been many such programs and some institutional support such as training programs, financing and exhibitions etc. extended by the relevant institutions (for example, IDB, DSI, EDB, ISB, SMED)<sup>4</sup> to encourage entrepreneurial activity at local levels in Sri Lanka. One of the main objectives of these policy processes and program initiatives is to promote small businesses and thereby increase local resource use in economic activity and create employment at local levels. However, unfortunately, there has been no proper mechanism of evaluation of the outcomes of those efforts and adequate data base development and research conducted to explore the determinants of the success of small businesses, household/individual income and employment generation capabilities. Furthermore, as it is observable small businesses do not occur randomly over space, instead their birth, retention and expansion even closing affected by various socioeconomic, demographic, spatial and policy variables. Therefore evaluation and understanding different strands of small business performance with these intra and interdependencies in a local area that lead to result in its economic development is an important task.

As far as the distribution of small businesses is concerned currently much of the income generation economic activity and increasing economic opportunities in the country are mostly concentrated in the Western Province driven by its urbanization process and industrial development (World Bank, 2007). According to the Central Bank of Sri Lanka (CBSL, 2012) the Western Province is characterized by greatest contribution to national GDP (45%) with a growth rate of 15.6%; highest per capita income; creation of employment opportunity; better quality of basic public amenities; and well-connected with other provinces than that of the other provinces in the country. Also the per capita income in the Western Province is at a much higher pace which is at Rs. 490,724 was 1.6 times the national per capita income in 2011 where as the per capita income in all other provinces remained below the national average of Rs. 313,511 (CBSL, 2012).

The lagging regions in many provinces and their divisional secretariats are characterized with less impressive economic outcomes including low agricultural and nonfarm incomes, low quality of basic public services and limited connectivity. These regions are less integrated and the pace of sector and spatial transformation are much slower compared to the Western Province. According to a recent report by the ILO (ILO & ILS, 2012)<sup>5</sup>, income disparities in Sri Lanka is ranked high among other developing countries despite its decreasing trend over the last few years due to infrastructure development initiatives in other provinces. High income disparities can undermine economic sustainability and threaten social cohesion. Therefore from policy makers and practitioners perspectives it is important to draw attention to formulate development initiatives promoting locally-based development capabilities making local communities as beneficiaries.

This may in turn help to minimize distributional inequalities in the country. The recent initiatives and promotional activity of the government at local levels may have a positive impact on stimulating local economic development and small business activity. However, the experience of local, national as well as global levels shows that promotion of local businesses is not determined by such governmental initiatives *per se* but various other factors that span beyond policy driven motivations (Morgan & Lambe, 2009).

---

<sup>4</sup> IDB Industrial Development Board; DSI Department of Small Industries, EDB Export Development Board; ISB Industrial Service Bureau; SMED Small and Medium Enterprise Developers (SMED) a project of the Federation of Chambers of Commerce & Industry of Sri Lanka (FCCISL)

<sup>5</sup> ILO (International Labor Organization) and ILS (International Institute for Labor Studies)

In the formation of an entrepreneurial class many inter-regional and intra-regional factors and dynamics also exert powerful effects on the realization of local economic development goals and small businesses in Sri Lanka. The Perceived Economic Opportunity Index (PEOI) constructed by Foundation for Economic Freedom in Sri Lanka (FEFSL, 2012) shows that there is sharp decline in the index over the last year period implying people's perceptions on economic opportunities are rather pessimistic. This will in turn adversely affect people's engagement in entrepreneurial activity. According to Central Bank of Sri Lanka (CBSL, 2012) statistical data different provinces perform at different phases in economic growth, industrial and service compositions. The reasons behind these provincial performances in economic development are not much clear or explored. Despite the fact that small business is one of the leading local economic development driving force, the business dynamics and formation of such an entrepreneurial class at local level is not adequately studied by researchers and therefore poorly understood by policy makers and development practitioners in Sri Lanka. To the best of our knowledge so far no research study focusing on this aspect of local economic development and development dynamics has been conducted. Therefore, the main focus of this research is to study the factors determining formation and effectiveness of small businesses for local economic development.

## **Literature Review**

### **Definition of Small Business**

The concept of small business or enterprise is widely recognized by almost every country as a local development tool/strategy. By definition small businesses have limited resources. Thus experience shows that it is particularly suitable/true for low-income households and disadvantaged people who lack access to capital and financial resources in their effort to gain empowerment and for others who perform such entrepreneurial activity as an extra source of income improving their social and economic wellbeing or even for fun. The importance of promoting small businesses recognizes as an effective way to inventions, innovation, equitable income distribution, resource utilization, poverty alleviation, utilization of local resources and foster regional economic growth and development etc. All these aspects are frequently emphasized in the literature by academics, researchers and development practitioners (Berkowitz & N.David, 2005; Deller & McConnon, 2009). In the evolution process of enterprises since 1960s the trend towards downsizing of large enterprises and more decentralized structure of businesses has been experienced by majority of firms (Acs J. Z., 1999). With this shifting paradigm during the 1980s and 1990s and now thriving, a revival in the promotion of small businesses took place at local and national level due to changes in production technology, in consumer demand, labor supply, the pursuit of flexibility and efficiency. Furthermore, because of the negative association between concentration and innovation the greater elasticity of concentration with respect to small-firm innovations led to assign a greater role for small businesses in local economic development (Acs & Audretsch, 1988).

The terms small business, microenterprises, microbusinesses, small enterprises and SMEs share some commonalities. For this reason there is no generally accepted clear definition for small business in many cases which is a fundamental problem doing research in this field. Different countries and supporting institutions consider various parameters such as number of employees, average firm size in terms of capital investment, amount of sales and the nature of the business and the sector to define small business (Gamage, 2003). As a result, what constitutes a small business is problematic and therefore is an empirical question (Deller & McConnon, 2009). This phenomenon is common to all countries across regions with varying degree regardless of their development status. Thus in some cases it is up to the researchers to define firms. For instance, US Census Bureau does not define small or large business instead it provides statistics that allow users to define business categories in any of several ways<sup>6</sup>. Based on the number of employees and either turnover or balance sheet total, European Union on the other hand defines its member countries MSMEs that stands for Micro (<10), Small (<50) and Medium-size Enterprises (<250) (European Union, 2003). Similarly, using broader criteria currently the SME Department of the World Bank works with the following definitions: microenterprise-up to 10 employees, total assets of up to \$10,000 and total annual sales of up to \$100,000; small enterprise- up to 50 employees, total assets and total sales of up to \$3 million; medium enterprise - up to 300 employees, total assets and total sales of up to \$15 million (Ayyagari, M, Thorsten, B, & Demirgu-Kunt, A, 2003).

---

<sup>6</sup><http://www.census.gov/econ/smallbus.html>

Considering the Sri Lankan context, there is no clear definition of an SME as government agencies use different criteria to identify SMEs (Deller & McConnon, 2009; Gebremariam, Gebremedhin, & Jackson, 2004; Gamage, 2003). According to the Department of Census and Statistics in Sri Lanka (DCS, 2010) a small business is defined as one employing 25 or fewer workers including working proprietors, active partners, unpaid family workers, operatives and all other employees. Using the size of capital and the number of employees as the criteria, the Industrial Development Board (IDB) defines a small industry as an establishment whose capital investment in plant and machinery does not exceed Rs. 4 million (approximately equivalent to US\$ 42,000) and the total number of regular employees does not exceed 50 persons (Central Bank of Sri Lanka, 1998). The SME development project defines small and medium scale enterprises in many categories based on the number of hired workers range from less than 9 to 199 (FCCISL, 2013). This limit in some countries such as US, UK, Germany and Japan spans as high as 200-499. According to a comprehensive review on the definition of SMEs, (Dababneh & Tukan, 2007), SMEs in most regional countries were found to be fitting comfortably within the 10 to 99 employee range (with small business defined as those employing between 10 and 49). Emphasizing this clarification on firms, (Headd & Sadee, 2008) say mixing data on different kinds of business, particularly the number of employees, can distort research results, therefore researchers need to make clear which group of business they are studying when conducting small business research, as the results may not be applicable to other subgroups of small businesses or to the whole. Therefore for the purpose of clarity and uniformity with many of other researchers in Sri Lanka such as (Cooray, 2003; Gamage, 2003; Lane, Glen, Delpachitra, & Howard, 2004), in this paper we consider small businesses as independent companies which include both microenterprises (enterprises with fewer than 10 employees including the proprietor) and small enterprises (enterprises that have between 10 and 49 employees).

#### **Determinants of the Success of Small Business**

The literature on the determinants of the success of small business is substantially rich internationally but only a handful of research contributed to those volumes in relation to local contexts. Commonly, almost all the researchers consider small business as the backbone of an economy. Simply because, small business needs relatively less capital and infrastructure but plays an important role in any economy through generating of employment, contributing to the growth of GDP, embarking on innovations and stimulating of other economic activities (Gamage, 2003). Starting a small business is possible even for a poor person if he/she has the trait and minimum required assets to begin with. Over time entrepreneurial talents are nurtured and such firms can be transformed into next levels i.e. medium and large scale if the business is successful in terms of management practices, sales growth and profits<sup>7</sup>. These performance indicators are determined by a number of vectors of explanatory variables such as socioeconomic, demographic, spatial, institutional, owner's experience and optimism businesses. For instance, the probability of a small business to be successful is greater when the proprietor has some assets or capital, more years of schooling and some skills and experience, strong support networks. A study based on British data, (Fraser & Green, 2006) explore that entrepreneurs, who are initially uncertain about their true talent, learn from experience however both optimistic bias in talent beliefs and uncertainty diminish with experience. Thus experience in entrepreneurial activity is an important factor that helps to guide for the success in businesses. Based on a large set of panel data (Bosma, Praag, & Wit, 2000) has found that general results are that the amount of human capital is especially important for determining duration and profit, while financial capital is especially related to employment. Social capital and strategies for retrieving relevant information for retention and expansion of businesses seem to be about equally important for all success measures. Focusing on another dimension to success of small business, (Premaratne, 2011) shows that entrepreneurial networks which include social, supporting (institutional) and inter-firms helps to bring important resources for firms involved in them. These networks help to achieve higher performance which in turn motivates network formation. However, none of the above studies have drawn its attention to how among other variables regional diversities spatial factors in Sri Lanka are related to the determinants and success of small business. A study by (Ranjith & Widner, 2012) on the effect of microenterprises on poverty in the US argues that ignoring spatial dependency factors may produce biased and inefficient results and possibly misleading recommendations for policies. Also there is a vast vacuum of research in small enterprises regarding the assessment/evaluation of the impact of government support programs both local and central governments for uplifting the small businesses. Considering the above research gaps this

---

<sup>7</sup> Sales and profitability are the commonly used performance measurers consider for evaluating the success of Small Business. see (Premaratne, 2011)

survey-based study focuses on how these relevant variables perform as determinants of success for small businesses.

#### **Overview of Constraints at Local Level**

Several factors constrain the growth and competitiveness of Sri Lanka's small enterprises. Despite the country's banking and financial institutions having expanded rapidly with an extended branch network, the availability of credit to small enterprises remain unsatisfactory. The major obstacle for the development of small businesses in Sri Lanka is the lack of access to adequate and timely financing financial intermediaries (Somaratne, 2012). The reasons for this obstacle are again related to several inherent structural weaknesses in SMEs which keep banks away from lending to them. Hence, it will be difficult to motivate banks to lend to small business without correcting these weaknesses. Without fulfilling this requirement, borrowing becomes more expensive and profit margins are reduced, holding back the establishment of new units and the consequent increase in job creation (World Bank, 2011). Inadequate financing has been attributed to the existence of a financial information gap between these two parties of financial intermediaries and small entrepreneurs (Damayanthi & Rajapakse, 2008). Financial gaps are usually created by many reasons such as lack of information, strict rules and regulations that deny small business and market imperfections. Therefore small business must gain satisfactory support from financial intermediaries through necessary financial facilities in order to fill the financing gap to ensure their sustainability. Government and other institutions can extend their support by disseminating information and performing a facilitative role for filling this financial gap. The lack of knowledge/training with regard to performing a business profitably and competitively is another constraint faced by many of the small businesses. However, training *per se* would not lead to the success all the businesses. Both profitability and business practices of the new entrants are increased by training, suggesting training may be more effective for new owners than for existing businesses (Suresh, McKenzie, & Woodruff, 2012).

The research studies that characterize small business and poverty emphasize the importance of understanding the diversity of locations. This is mainly because the geographic and location characteristics, especially for rural, suburban and urban types impact on the success of small business (Acs & Armington, 2004; Glaeser, 2007). The findings of (Henderson & Weiler, 2010) shows that the impact of entrepreneurship is greater in denser more urbanized settings where such business can take advantage of a thick market place. Therefore, market conditions including the labor market may adversely influence small business in their growth and expansion. Even the living standards of households in a specific location might affect the success of small business (Headd & Sadee, 2008). Hence various households characteristics, their demographic components, neighborhood effects, institutions and spatial attributes/characteristics are closely associated as determinants of small business and the living standards of households. As far as the diversity is concerned, same argument may be apply to research conducting on small business in regions, local governments and districts in Sri Lanka. In another study focusing more deeply on local and household characteristics in the US by (Rupasingha & Contreras, 2010) find that regional labor market conditions, returns to microenterprise activities and risk associated with these earnings, owner-occupied housing units and housing value, existence of super markets in a local area, median age, female labor force participation rate, ethnic minorities and ethnic diversity, public expenditure on education and family assistance, natural amenities, and social and cultural capital play a significant role in determining the number and performance of small businesses in one locality than others. However, the studies that consider these aspects have mostly focused on the small firms with five or fewer employees including the owner although these characteristics in a local economy are of important determinants for the success of small businesses and the community in general.

Considering the existing research gaps in the literature, we find that most of these national-wide as well as regional-specific factors are important determinants that explain the variation in the performance of small business. These location characteristics differ across provinces or local governments. For the same reason, it might be a challenging task to design policy and address problems of small enterprises through national programs. Therefore, it is important to focus on research on the factors that determine the success of small business in regional and local economies in Sri Lanka. Nevertheless the literature review shows that although some efforts have been made through national and local levels, adequate research has not been conducted or the impact of various government support programs in Sri Lanka has been poorly understood. Therefore, this research study takes those factors into account in our model specifications in the next section to conduct this empirical study.

### **Research Problem/ Research Question**

The formation of a local industrial base is an important policy decision. The main objectives of the industrial policy of the government are expansion, diversification and upgrading of the domestic industrial base, efficient management of physical and manpower resources, creation of new employment opportunities in both rural and urban sectors, export promotion and the promotion of the industrialization at the regional level (Padmini, 2000). According to a report by (ILO & ILS, 2012) Sri Lanka has the highest levels of regional inequality in South Asia. Growth in inequality across regions is increasing as more prosperous regions take advantage of the cessation of hostilities in 2009 and capture an increasing flow of remittances and direct foreign investment into the country (Central Bank of Sri Lanka, 2012). Also the past experience shows that a few large scale industries would not lead to have benefits to the larger societies instead failures of those industries were resulted due to managerial weaknesses and corrupted bureaucracy (Ranjith & Widner, 2012). Having understood this reality current regime has drawn attention to come up with some initiatives to promote local small businesses from its provincial and divisional secretariat bodies (for example, IDB, *Divineguma*, and Regional Development banks etc.).

According to the recent statistical data of CBSL (Central Bank of Sri Lanka, 2012) (Appendix A) provincial GDP growth and industrial sector development vary considerably regardless of the national level economic development and enhancement programs. For instance, a noticeable growth in the manufacturing sector and financial sector has helped the North Western province to record 21.9 per cent growth in its GDP in 2011 (Central Bank of Sri Lanka, 2012). This growth rate is higher than that of the Western Province. Therefore, curiosity arises as a researchable question, what makes NWP to achieve this tremendous growth rate? What are the specific factors/reasons for people or individuals to engage in self-employment activity? Is it due to poverty that makes small business as a choice available to them? Or the government policy through its welfare or subsidy that provide some enforcement for local people to engage in self-employed small business activity. Despite the important contribution to the local as well as national economy in Sri Lanka the dynamics of small businesses have been poorly understood by researchers, policymakers and economic development practitioners. The literature shows that much less is known about the dynamics of small businesses at local government level and how they are helpful to low-income families and individuals in finding ways out of poverty, income and employment generation.

Also there can be many other background factors such as personal characteristics of individuals such as personal traits, skills and risk bearing ability for engaging in small business to achieve their economic development goals. These economic, social and cultural factors may exert much influence on realizing the success of such small businesses at local levels. Considering the above background this research is therefore focuses on exploring and examining the factors determining the formation and effectiveness of small businesses on local economic development in Sri Lanka.

### **Objectives of the Study**

The main objectives of the research are;

- To examine the factors determining the success of small businesses at regional economies in Sri Lanka,
- To evaluate the impact of government support for stimulating the growth potential of small business development initiatives at the local government levels,
- To develop alternative/plausible policy choices on how to plan to enhance the success of small businesses
- The secondary objectives is to understand any other factors and causality effects that can be considered to be important determinants of small business

### **Method**

The study used the stratified random sampling method. The total number of small and medium scale business enterprises in the Kuliyaipitiya Divisional Secretariat (DS) Divisions of Kurunegala district in Sri Lanka was considered as the study area for selecting the sample. Kuliyaipitiya consists of two DS Divisions namely Kuliyaipitiya East and Kuliyaipitiya West and they consist of 45 and 68 GN Divisions respectively. The areas of the two DS Divisions are 12,140 hectares and 16,490 hectares respectively. According to District Statistical Branch in Kurunegala Kuliyaipitiya East has 139 villages, and while Kuliyaipitiya West has 146 villages with one Urban Council and a Municipal Council. The population in the East area is around 54,000 with 13,000 families and in the West around 77,000 with 20,000 families. The population density for DS East is 4.68 while it is for West is 4.43. Therefore Kuliyaipitiya west is relatively densified with more

urbanized living than the East. The following table 1 and 2 provide some of the baseline information relevant to understand industrial and commercial activity of the two divisional areas.

**Table 1: Registered Commercial Places in Kuliyaipitiya DS-2011**

Nature of business activity	East	West
Retail Shops	287	716
Restaurant and canteen	30	763
Textiles and footwear	16	38
Meat, fish and vegetables	15	20
Dispensary and pharmacy	10	48
Wood and iron furniture	10	101
Electrical items	8	28

Source: Dept. of Census and Statistics Sri Lanka (<http://www.statistics.gov.lk> 2013)

**Table 2: Registered Manufacturing Industries in Kuliyaipitiya DS-2011**

Nature of Industry	East	West
Mining and Quarrying	20	12
Food Beverages and Tobacco	15	39
Textile, wearing, apparel and leather	05	55
Wood, wood production and furniture	10	102
Paper products and printing	01	13

Source: Dept. of Census and Statistics Sri Lanka (<http://www.statistics.gov.lk> 2013)

However, the business registration records available at each Divisional Secretarial offices in Kuliyaipitiya were used to select the sample of the study. There are around 2850 small and medium business in the division which is our sampling frame. The businesses were then categorized into services sector firms and industrial firms. There are around 1560 service sector businesses while the rest is on industrial firms. Based on the criteria that was used to define small business in this study, a sample of 150 small business units were selected, out of which 50 are from East and 100 are from West. A detail questionnaire was designed to collect data. Multiple regression method was used to test the impacts of the determinants of the success of small business.

This study uses the success of small business as the dependent variables ( $Y$ ). Business success was measured by profits as a share of sales revenue. A number of determinants were considered as variables representing the various qualities of the entrepreneur in determining the success of a small business. The empirical model is specified as follows;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

where  $\alpha$  denote intercept coefficient and  $\beta$  values represent the parameters of explanatory variables. The explanatory variables include; family background of the entrepreneur ( $X_1$ ), nature of vocational training of the entrepreneur ( $X_2$ ), entrepreneur's ability make decisions ( $X_3$ ), entrepreneur's knowledge of the industry ( $X_4$ ), entrepreneur's knowledge of the trade ( $X_5$ ), entrepreneurship training obtained by the entrepreneur ( $X_6$ ) and amount of investments in the business ( $X_7$ ). Then the above empirical equation is considered to be the base model that estimated to get the regression results.

This model was estimated by using ordinary least squares (OLS) method. The model was first estimated for the entire sample of the Kuliyaipitiya DS division and then was divided into two sub-samples as Kuliyaipitiya West and Kuliyaipitiya East consisting of 50 and 100 entrepreneurial firms respectively in both industrial production and services. We do not report results for Kuliyaipitiya East sample as the estimation for that sample is plagued by heteroskedasticity.

**Analysis of Regression Results**

The study aimed to examine as to how the qualities of entrepreneur tend to affect the success of small business. The estimates for the Kuliypitiya DS division give mixed results. Table 3 summarizes the results. While many of the variables that may represent entrepreneurial quality appear to affect insignificantly for the success of small business, a number of key significant factors can be identified.

**Table 3: Regression Results for Total Sample of Kuliypitiya DS Division**

Dependent Variable: share of sales revenue ( $Y$ )			
Explanatory Variable	Coefficient	Std. Error	Prob.
Intercept	3.45	0.7	0.00
Family background of the entrepreneur ( $X_1$ )	0.18	0.10	0.08
Nature of vocational training of the entrepreneur ( $X_2$ )	-0.07	0.05	0.17
Entrepreneur's ability to make decisions ( $X_3$ )	0.27	0.08	0.00
Entrepreneur's knowledge of the industry ( $X_4$ )	0.19	0.13	0.14
Entrepreneur's knowledge of the trade ( $X_5$ )	0.01	0.13	0.90
Entrepreneurship training obtained by the entrepreneur ( $X_6$ )	0.09	0.05	0.08
Amount of investments in the business ( $X_7$ )	0.09	0.03	0.00
Leadership skills of entrepreneur ( $X_8$ )	0.009	0.005	0.09
Prob > F = 0.01			
R-square = 0.18			
No of observations = 143			

The R-square of the model is 18 percent indicating that 18 percent of the success of small business can be explained by the quality of entrepreneurs. The results also indicate that family background of the entrepreneur, entrepreneur's ability to make decisions, level of training of the entrepreneur on entrepreneurship, amount of money invested on the business tend to significantly determine the success of a business. However, nature of vocational training obtained by the entrepreneur, entrepreneur's knowledge of the industry, entrepreneur's knowledge about trade and commerce tend to be weakly significant at about 75 to 80% range, though they are not considered significant at conventional 90 percent or 99 percent levels. However, the results indicate these qualities of entrepreneur tend to be crucially important for the success of the business.

In order to verify the above results the sample was divided into two sub-samples based on the argument presented above. In order to test the spatial variation of the success of entrepreneurial activity 100 firms were selected from Kuliypitiya West and 50 firms were selected from East divisional area. Of the sub-samples used to estimate the model a few firms were omitted by the sample due to errors or incompleteness of the data. Therefore 94 firms are selected to estimate the model from West and 40 firms considered to estimate the model from East divisional area. This ratio of the division was determined based on the total number of firms available in the two divisional areas. According to empirical results, none of the variables are significant in the Kuliypitiya East region so that the results are not reported here. The results however indicated that there is no much of entrepreneurship in the Kuliypitiya East, what is seen as small enterprises can simply be recognized as the livelihood occupations. Nevertheless this result is useful to understand the importance of some locational characteristics in relation to proximity to urban centers and population density. Comparing the two divisional areas, West region has urban and municipal areas with greater population density which is a supportive factor for market formation and access to information. These important spatial characteristics may have been conducive to have a greater impact on entrepreneurial development when combined with qualitative aspects embedded in entrepreneurs. This combined effect can be considered as strongly influential for the success of entrepreneurial development in local context.

Empirical results regarding Kuliypitiya West is reported in Table 4. According to results, 24 percent of the success of small business can be explained by the entrepreneurial quality variables. Except the nature of vocational training of the entrepreneur, all the other variables are significant at either 99 percent or 90 percent level.

**Table 04: Regression Results for Sub-Sample of Kuliypitiya West**

Dependent Variable: share of sales revenue ( $Y$ )			
Explanatory Variable	Coefficient	Std. Error	Prob.
Intercept	3.68	0.81	0.00
Family background of the entrepreneur ( $X_1$ )	0.33	0.11	0.00
Nature of vocational training of the entrepreneur ( $X_2$ )	-0.06	0.06	0.31
Entrepreneur's ability make decisions ( $X_3$ )	0.20	0.09	0.02
Entrepreneur's knowledge of the industry ( $X_4$ )	0.42	0.16	0.01
Entrepreneur's knowledge of the trade ( $X_5$ )	0.17	0.16	0.08
Entrepreneurship training obtained by the entrepreneur ( $X_6$ )	0.10	0.05	0.00
Amount of investments in the business ( $X_7$ )	0.12	0.03	0.00
Prob > F = 0.03			
R-square = 0.24			
No of observations = 94			

The OLS statistics used to test hypotheses under the Gauss - Markov assumptions are not valid in the presence of heteroskedasticity. Therefore, this study applied Breusch- Pagan and Cook Weisberg tests to the regression models to verify the presence of heteroskedasticity. It is based on the null hypothesis that the variance is constant. When the probability is large, we will accept the null hypothesis of constant variance. A large chi-square would indicate that heteroscedasticity is present. The results clearly indicate that the regressors are homoscedastic in the base model and Kuliypitiya West, while heteroskedasticity is present in the model for Kuliypitiya East. We, therefore, only presented results for the entire Kuliypitiya region and Kuliypitiya West sample (Table 5).

**Table 5: Results of Heteroskedasticity Tests**

	Base Model	Kuliypitiya East	Kuliypitiya West
Chi Square	1.37	4.35	0.01
Prob.of ChiSquare	0.2411	0.0370	0.9353

**Conclusion**

The primary conclusion of this research study highlights that the factors affecting the success of small business are mixed. The study aimed to examine how the qualities of entrepreneur tend to affect the success of small business. The estimates for the Kuliypitiya DS division give mixed results. While some of the variables that represent entrepreneurial quality appear to affect insignificantly, a number of key significant factors for the success of small business can be identified. These factors are the family background of the entrepreneur, entrepreneur's ability to make decisions, level of training of the entrepreneur on entrepreneurship, amount of money invested on the business. The results indicate that these qualities of entrepreneur tend to be crucially important for the success of the business.

The model estimation results for the two divisional areas, Kuliypitiya East and West, verify the importance of spatial differences in terms of social, economic and physical locational characteristics for the success of small business. This result is an important finding in this research. Therefore, it can be concluded that entrepreneurial development is more successful when qualities of entrepreneurs combined with urban settings with greater population density. However, these results do not imply that the entrepreneurs in rural areas should be discouraged. The important policy implication derive from this research is the

importance of paying attention of the policymakers to develop supportive programs and measures to ease the difficulties of rural entrepreneurial class to get connected to the business networks and information.

## References

- Acs, J. Z. (1999). *Are Small Firms Important? Their Role and Impact*. Boston: Books.google.com.
- Acs, Z. J., & Armington, C. (2004). Employment Growth and Entrepreneurial Activity in Cities. *Regional Studies, Vol. 38.8*, 911-927.
- Acs, Z. J., & Audretsch, D. B. (1988). Innovation in Large and Small Firms. *American Economic Review, 78*, 678-690.
- ADB. (2013). *Sri Lanka: Small and Medium Enterprise Regional Development Project*. Manila: Asian Development Bank.
- Aghion, P., Caroli, E., & Garcia-Penalosa, C. (1999). Inequality and Income Growth: The perspective of the new growth economics. *Journal of Economic Literature 37*, 1615-1660.
- Atasoy, S. (2004). *The Economic Impact and Importance of Microbusinesses to the New England Economy*. The University of Maine: A thesis submitted for the degree of Master of Science.
- Ayyagari, M, Thorsten, B, & Demirgu-Kunt, A. (2003). *Small and Medium Enterprises across the Globe: A New Database. World Bank POLICY RESEARCH WORKING paper 3127*. Washington D.C.: World Bank.
- Beck, T., Demirguc-kunt, A., & Levine, R. (2005). SMEs, Growth, and Poverty: Cross-Country Evidence. *Journal of Economic Growth 10*, 199-229.
- Berkowitz, D., & N.David, D. (2005). Entrepreneurship and Post-socialist Growth. *Oxford bulletin of Economic and Statistics*, 25-46.
- Bosma, N., Praag, M. V., & Wit, G. d. (2000). Determinants of successful entrepreneurship. Scientific AnaLysis of Entrepreneurship and SMEs. *Scales Research Reports*, 1-40.
- CBSL. (2012). *Provincial Gross Domestic Product- 2012*. Colombo: Central Bank of Sri Lanka.
- Census Bureau, U. (2011). *Income, Poverty, and Health Insurance Coverage in the United States, 2010*. Washington, DC: U.S. Census Bureau.
- Central Bank of Sri Lanka. (1998). *Economic Progress of Independent Sri Lanka*. Colombo: Central Bank of Sri Lanka.
- Central Bank of Sri Lanka. (2012). *Economic and Social Statistics of Sri Lanka*. Colombo.
- Champlin, D. P., & Knoedler, J. T. (2005). Whither, or Wither, the Good Society? *Journal of Economic Issues, Vol. XXX No.2*, 455-463.
- Cooray, M. (2003). *Walk Through Cleaner Production Assessment in SME's - A Case Study from Sri Lanka, Small to Medium Enterprise Developers*. Retrieved from www.aprcp.org: [http://www.aprcp.org/roundtables/4th/Papers/Cooray\\_W05.pdf](http://www.aprcp.org/roundtables/4th/Papers/Cooray_W05.pdf)

- Cravo, T. A., Gourlay, A., & Bettina, B. (2010). SMEs and regional economic growth in Brazil. *Small Business Economics*, 1-14.
- Cushing, B., & Zheng, B. (2000). Re-evaluating differences in poverty among central city, suburban, and nonmetropolitan areas of the US. *Applied Economics*, 32, 653-660.
- Dababneh, R., & Tukan, F. (2007). *Booklet of standardized small and medium enterprises definition-2007*. Washington D.C.: A publication of USAID.
- Damayanthi, D. G., & Rajapakse, B. (2008). The financial information gap: The financial intermediaries and the small and medium enterprises in Sri Lanka. *E-Repository Research Paper*, 40-47.
- DCS. (2010). *Annual Survey of industries 2010: Final Report*. Colombo: Department of Census and Statistics.
- Deller, S., & McConnon, J. C. (2009). Microenterprises and economic growth: a panel study of the US states 1977-1997. *Applied Economics Letters*, 16(13), 1307-1312.
- Donald, B., Deskins, A. J., Hill, C. B., & Rork, C. J. (2007). *Small Business and State Growth: An Econometric Investigation*. Washington D.C. : U.S. Small Business Administration, Office of Advocacy.
- EDB. (2014). *Export Development Board Trade Information*. Retrieved from [www.srilankabusiness.com](http://www.srilankabusiness.com): <http://www.srilankabusiness.com/en/service/trade-infomation>
- European Union. (2003). *Small and medium-sized enterprises (SMEs) What is an SME?* Retrieved from [ec.europa.eu](http://ec.europa.eu): [http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm)
- FCCISL. (2013). *Small & Medium Enterprise Development (SMED)*. Retrieved from Federation of Chambers of Commerce and Industry of Sri Lanka: <http://www.fccisl.lk/buisness-services/smed/>
- FEFSL. (2012, 3 13). *Perceived Economic Opportunity Index: Confidence dips in Feb.* Retrieved from [www.ft.lk](http://www.ft.lk): <http://www.ft.lk/2014/03/13/perceived-economic-opportunity-index-confidence-dips-in-feb/>
- Fraser, S., & Green, F. J. (2006). The effects of experience on entrepreneurial optimism and uncertainty. *Economica* 73, 169-192.
- Gamage, A. (2003). *Small and medium enterprise development in Sri Lanka: A review 133-150*. Retrieved from [biz.meijo-u.ac.jp/SEBM/ronso/no3\(4\)/aruna.pdf](http://biz.meijo-u.ac.jp/SEBM/ronso/no3(4)/aruna.pdf): [http://wwwbiz.meijo-u.ac.jp/SEBM/ronso/no3\(4\)/aruna.pdf](http://wwwbiz.meijo-u.ac.jp/SEBM/ronso/no3(4)/aruna.pdf)
- Gebremariam, G. H., Gebremedhin, T. G., & Jackson, R. W. (2004). *The role of small business in economic growth and poverty alleviation in West Virginia: An empirical analysis*. Regional Research Institute, West Virginia University .
- Glaeser. (2007). ENTREPRENEURSHIP AND THE CITY. *NBER Working Paper No. 13551*. Harvard University and NBER.
- Glaeser, E. L., Rosenthal, S. S., & Strange, W. C. (2010). Urban economics and entrepreneurship. *Journal of Urban Economics* 67, 1-14.
- Goetz, S. J. (1997). State and County-level Determinants of Food Manufacturing Establishment Growth: 1987-1993. *American Journal of Agricultural Economics*, 79:3, 838-850.
- Headd, B., & Sadee, R. (2008). Do business definition decisions distort small business research results? *U.S. Small Business Administration, Office of Advocacy Working Paper*.
- Henderson, J., & Weiler, S. (2010). Entrepreneurial and Job Growth: Probing the Boundaries of Time and Space. *Economic Development Quarterly* 24(1), 23-32.

- Henderson, J., & Weiler, S. (2010). Entrepreneurial and Job Growth: Probing the Boundaries of Time and Space. *Economic Development Quarterly Vol. 24 No. 1*, 23-32.
- ILO, & ILS. (2012). *World of Work Report: Better jobs for a better economy*. Geneva: ILO.
- Lane, M., Glen, V., Delpachitra, S., & Howard, S. (2004). An electronic commerce initiative in regional Sri Lanka: The vision for the Central Province electronic commerce portal. *The electronic journal of information system in developing countries vol. 16 No.1*, 1-18.
- Lanka, C. B. (2013). *Economic and Social Statistics of Sri Lanka*. Colombo: Central Bank of Sri Lanka.
- Lerman, R. I. (1996). The Impact of the Changing US Family Structure on Child Poverty and Income Inequality. *Economica, New Series Vol.63 No.250*, S119-S139.
- Levernier, W., Partridge, M., & Rickman, D. (2000). The causes of regional variations in U.S. poverty: A cross-county analysis. *Journal of Regional Science, 40(3)*, 473-497.
- Madden, J. F. (1996). Changes in the Distribution of Poverty across and within the U.S. Metropolitan Areas, 1979-89. *Urban Studies, Vol. 33, No. 9*, 1581-1600.
- Major, L. C., & Saade, R. N. (2010). *The Role of Small Business in Economic Development of the United States: From the End of the Korean War (1953) to the Present. A Working paper*. Washington D.C.: Office of Advocacy US Small Business Administration.
- Martin, K. e. (2004). *Growing an Entrepreneurial Economy: Small and Emerging Business in New Mexico*. Las Cruces: New Mexico State University press.
- Morgan, & Lambe. (2009). Find a way or make one. *Economic Development Journal vol.8 no.3*, 3-5.
- Narampanawa, A., Bandara, J., & Selvanathan, S. (2011). Trade and poverty nexus: A case study of Sri Lanka. *Journal of Policy Modeling 33*, 328-346.
- Ngarambe, O., Goetz, S., & Debertin, D. (1998). Regional economic growth and income distribution: county-level evidence from the US south. *Journal of Agricultural and Applied Economics 30*, 325-337.
- Padmini, K. D. (2000). *Sri Lanka (2): APO (Asian Productivity Organization) International Symposium on Management of Industrial Estates through Green Productivity (GP). Penang, Malaysia 206-219*. Retrieved from [www.apo-tokyo.org/gp/e\\_publi/.../Penang\\_S](http://www.apo-tokyo.org/gp/e_publi/.../Penang_S): [http://www.apo-tokyo.org/gp/e\\_publi/.../Penang\\_S](http://www.apo-tokyo.org/gp/e_publi/.../Penang_S)
- Perera, D., & Wijesinghe, A. (2011). *Talking Economics: SME development strategies for Sri Lanka: Learning Lessons from Neighboring Countries*. Colombo: Institute of Policy Studies (IPS).
- Premaratne, S. P. (2011). Networks, resources and small business growth: The experience in Sri Lanka. *Journal of Small Business Management vol.39 No.4*, 363-371.
- Ranjith, S., & Widner, B. (2012). The effect of Microenterprises on Poverty: A cross-county analysis on US urban poverty. *58th Annual North American Meetings of the Regional Science Association International 2011*. Miami, Florida.
- Reynolds, P. D. (1991). Predicting New-Firm Births: Interactions of Organizational and Human Population. in Donald L. Sexton and John D. Kasarda (eds). Boston, MA: PWS-Kent Publishing Company., *The State of the Arts of Entrepreneurship*, pp. 268-300.
- Rupasingha, A., & Contreras, S. (2010). Factors affecting spatial variation of microenterprises in the rural U.S. *Economic Development in Underserved Communities: Where Research and Practice Meet* (pp. 1-36). Kansas City: Federal Reserve Bank of Kansas City, Missouri.

- Rupasingha, A., & Goetz, S. J. (2007). Social and political forces as determinants of poverty: A spatial analysis. *The Journal of Socio-Economics Vol.36 No.4*, 650-671.
- Rupasingha, A., Goeta, S., & Freshwater, D. (2002). Social and institutional factors as determinants of economic growth; evidence from the US counties . *Papers in Regional Science 81*, 139-155.
- SBA. (2009). *Small Business Profile*. Office of Advocacy: Washington D.C. Retrieved July 10, 2011, from SBA office of Advocacy's: <http://www.fedaccess.com/what-is-small-business.htm>
- SBA. (2009). *Small Business Profiles for the States and Territories*. Washington D.C.: U.S. Government Printing Press. : SBA, Office of Advocacy.
- SBA. (2010). *The Small Business Economy: A Report to the President*. Washington D.C.: U.S. Government Prinitng Office.
- Seidman, J. K. (2005). *Economic Development Finance*. Thousand Oaks: Sage Publications.
- Servon, J. L. (1997). Microenterprise program in U.S. inner cities: economic development or social welfare? *Economic Development Quaterly 11(2)*, 1-17.
- Servon, J. L. (2006). Microenterprise Development in the United States: Current Challenges and New Directions. *Economic Development Quarterly, 20(4)*, 351-367.
- Servon, J. L., & Bates, T. (1998). Microenterprise as an Exit Route from Poverty: Recommendations for Programs and Policy Makers. *Journal of Urban Affairs, Vol. 20, No. 4*, 419-441.
- Servon, L. J., & Bates, T. (1998). Microenterprise as an Exit Route from Poverty: Recommendations for Programs and Policy Makers. *Journal of Urban Affairs, Vol.20, No.4*, 419-441.
- Somaratne, A. (2012, 08 13). Access to finance by SMEs in Sri Lanka. *The Island Newspaper*, pp. 2-3.
- Suresh, d. M., McKenzie, D., & Woodruff, C. (2012). Business Training and Female Enterprise Start-up, Growth, and Dynamics Experimental Evidence from Sri Lanka. *Impact Evaluation Series No. 63. Policy Research Working Paper 6145. The World Bank*.
- World Bank. (2007). *Sri Lanka Development Forum: The Economy, Reginal Disparities, and Global Opportunities*. Washington D.C.: World Bank.
- World Bank. (2011). *Small and Medium Enterprises: Engines of Growth in Post Conflict Sri Lanka. News & Views*. Retrieved from [www.worldbank.org](http://www.worldbank.org): <http://www.worldbank.org/en/news/2010/09/30/small-medium-enterprises-engines-growth-post-conflict-sri-lanka>.