The Relationship between Access to Finance and Growth of SMEs in the Northern Province of Sri Lanka: Financial Literacy as a Moderator

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Abstract

The direct effect of access to finance on the growth of Small and Medium Enterprises (SMEs) run by entrepreneurs is well studied. However, there is limited understanding on the difference in the rate of entrepreneurship growth across a nation. Further, the empirical findings relating to the financial literacy of entrepreneurs significantly differ across different geographic communities. Thus, the purpose of this study is to examine the impact of financial literacy on the access to finance and the business growth of the SME Sector in the Northern Province of Sri Lanka in the post-civil war context, as SMEs promote resilience of communities to recover from adversities such as civil war. The Indebtedness of Northern Province has suddenly increased, as there is a sharp growth is evident in the average debt per family in the post-civil war context. Thus, demonstrating the lack of proper financial literacy and the discipline required to be financially stable, which is a crucial benchmark for a successful business. According to the model of ambidextrous management in entrepreneurial growth companies, entrepreneurship is process where the entrepreneurial orientation turns into implementation and thereby leads to the business growth. However, the effect of access to finance to the entrepreneurs and the impact of financial literacy of the entrepreneur on this relationship is not examined. Thus, this study incorporates the effect of access to finance and the moderating effect of financial literacy to the existing model. It was evident from this study that, access to finance has a direct impact on the growth of the SMEs in the Northern Province of Sri Lanka. The results also reflect that the financial literacy and ability to make the financial decisions influence access to finance, resulting in business growth.

Keywords: Small and Medium size Enterprise (SME), Financial Literacy, and Entrepreneurial Growth

INTRODUCTION

SMEs and individual entrepreneurs continue to play critically important roles in the growth of developing economies (Baumol, 2004 as cited by Majumdar, 2008). Over a period of time, SME have gained vast importance as a major source of employment creation, income generation, poverty alleviation and regional development. Hence, this study focuses on studying the entrepreneurial growth of the SME sector in the Northern Province of Sri Lanka.

According to the National Human Resources and Employment Policy (NHREP, 2012), SMEs account for a large part of Sri Lanka's economy. Even though SMEs in Sri Lanka account for an overwhelming proportion of industrial establishments in Sri Lanka, their share of employment and value addition is much smaller. Further ‘investment to generate employment’ or ‘investment per employee’ is said to be the lower in small-scale industries compared to large entities (Small and Medium Enterprise Sector Development, 2002). According to the findings of international researchers, Sri Lanka is still in the half way stage in the SME sector (Joseph, 2014).

This study focuses particularly on the Northern Province of Sri Lanka as there are a fewer number of surveys and studies that have focused on this province, due to the ethnic conflict that prevailed until 2009. Further, SMEs promote resilience of communities to recover from adversities such as civil war. Focusing on the Labour Force Survey results of the Department of Census and Statistics, the Northern Province has a higher level of unemployment and lack of labour force participation when compared to other provinces. The average unemployment rate in Sri Lanka was 4.4% in 2016; however the unemployment rate in the Northern Province was 6.3%. According to the labour force survey of 2016, only around 34.6% of the employed population is engaged in self-employment. According to the Household Income and Expenses Survey (HIES), poverty in the districts of the Northern and Eastern provinces are comparatively higher than in the other provinces (HIES, 2013). As per the Poverty incidence (headcount index) of 2016, Northern Province is the highest with 7.7. Thus, it is vital to identify the determinants of growth of the SME sector particularly in the post-civil war context, in order to achieve a satisfactory level of employment opportunities and economic development.

According to the model of ambidextrous management in entrepreneurial growth companies (Moore, 1986; Bygrave, 1989), entrepreneurship is a process where entrepreneurial orientation turns into implementation and thereby leads to business growth. However, the effect of access to external finance and the financial literacy on this relationship is not examined. The purpose of this study is to identify the access to finance and the growth of SMEs in the Northern Province of Sri Lanka and the moderating effect of financial literacy on this relationship. The objectives of this study would be to analyse the growth of the SME sector in the Northern Province of Sri Lanka in the post-civil war context as SMEs promote resilience of communities. Further to examine the influence of access to finance on entrepreneurial growth and to examine the moderating effect of financial literacy on the relationship between the access to finance and entrepreneurial growth.

Focusing on the significance of this study, one of the key challenges faced by Sri Lanka at present is to ensure post war growth by minimizing the regional growth disparities and by developing the living standard of all peoples. The Northern Province in particular, which is in process of slow recovery in the post 2009 era, after the end of a long period of civil war, needs to be paid disproportionately more attention in order to ensure that development across the country is evenly balanced. As such there is a high potential for the success of SMEs in Sri Lanka particularly in the Northern Province, the Government can create the right atmosphere for entrepreneurs to create new employment ventures and thereby improve the living standard of the Northern Province.

This paper proceeds as follows; the next section is the literature review relating to the study variables and will be followed by hypothesis development and the conceptual framework. The research methodology and the data analysis is presented in the next section and the final section is a discussion of the key findings, the theoretical implications and the managerial and social implications, this will be followed by the conclusion.

LITERATURE REVIEW

Entrepreneurship

Drucker (1985), as cited by Elenurm (2012), has explained that entrepreneurs are those who exploit the identified opportunities and induce changes. Further he also emphasized that innovation and risk taking are two key entrepreneurial challenges. In order to create economic growth in a country, an entrepreneur plays the role of innovator by inducing change and creating new opportunities. Some other definitions would be, a person who identifies opportunity and develops new business (Bygrave & Hofer, 1991 as cited by Sesen & Pruett, 2014) and a person who makes new combinations in creative destruction (Schempeter, 1934 as cited by Sesen & Pruett, 2014). Parston (1998), as cited by Thompson (1999), defines the process of entrepreneurship as the managerial behaviour which continuously exploits opportunities to deliver better results.

The cultural values of the individual and the level of entrepreneurship is highly influenced by experience, education and religion (Hayton et al., 2002; Morrison, 2000 as cited by Altinay & Wang, 2011). Nooteboom (2002), as cited by Majumdar (2008), claimed that not only the personal characteristics of the entrepreneur determine the success or failure of the entity, but the result is also determined by the collaboration of these characteristics with contingency factors in the environment in which the business operates. Entrepreneurs play a role in achieving growth, as they accelerate the creation, dissemination and application of creative and innovate ideas (McDougall & Oviatt, 1997 as cited by Tseng, 2012). The creation and development of entrepreneurship results from the formation of entrepreneurial opportunities and utilization of entrepreneurial capacities. Therefore the role of entrepreneurship on the economic growth is influenced by the number of entrepreneurial opportunities and the level of entrepreneurial capacities (Tseng, 2012).

Small and Medium Enterprises

Small businesses are the players in the niche where they have the flexibility and close relationship with customers (Nooteboom, 2002; Van Kirk & Noonan, 1982 as cited by Mujumdar, 2008). Mulhern (1995), as cited by Hyz & Gikas (2014), emphasized that in today's economy a vital role is played by SMEs, which can be seen clearly since the highly developed economies are dominated by a network of small and medium-sized enterprises. Several studies have recognized the importance of SMEs as their performance is important in bring about social and economic growth by contributing to employment creation, income generation and developing both urban and rural areas (Hallberg, 2000; Olutunla, 2001; OECD 2004, Williams, 2006 as cited by Israel et al., 2014). Small entrepreneurial organizations and entrepreneurs play a crucial role in the growth of developing economies (Baumol, 2004 as cited by Majumdar, 2008). One of the key reasons for helping SMEs is that these businesses utilize the resources efficiently and thereby contribute to the pro-poor growth and employment generation as SMEs use more labour than capital (Fairoz et al., 2010).

Sri Lanka does not have a commonly accepted definition for SME. There are several definitions given by different authorities and institutes in order to offer benefits to this sector such as tax concessions and the promotion of innovation. According to World Bank criteria any enterprise having below 99 people can be termed as SME. The Industrial Development Board (IDB) identifies an SME as an institution whose capital investment in plant and machinery does not exceed Rs.4 million (US$42,000) (Gamage, 2003).The Department of Census and Statistics also determines an SME by using the number of employees, where the organizations with up to 149 employees are considered medium scale businesses. According to the Task Force for Small and Medium Enterprise Sector Development established in December 2002, an SME is defined as an entity with less than an investment of 50 Million and employs less than 30 employees. The paper published by the taskforce in 2002 illustrated that in Sri Lanka, despite the various reforms by the government and assistance by donor agencies, the SME sector is not very dynamic and is under developed and it also continued to state that the expansion of the SME is constrained by both personal and market factors. Further it is obvious that the numerous definitions of SMEs adopted by several institutions has led to a misunderstanding in identifying SMEs for a number of supportive measures (Gamage, 2003).

According to Fogel(1994), as cited by Mai& Gan (2007), many researchers have indicates the effect of different factors of entrepreneurial environments on entrepreneurial intention and thereby on SMEs. Socio economic factors, the credit availability, technical assistance, physical facilities, and information are some of the key infrastructure facilities required by the small business (Gartner, 1985 as cited by Mai& Gan, 2007).Several kind of social and other network required to enhance SMEs (Aldrich et al., 1989; Birley, 1996; Chu, 1996; Cromie et al., 1994; Greve, 1995; Ostgaard & Birley, 1996; Sadler & Chetty, 2000; Weick, 1991 as cited by Vijayakumar, 2013).Additionally, aspects such as, networks in urban areas, the access to financial resources, and the existence of universities for training and research are also found to be very significant in increasing the rate of new business creations (Pennings, 1982 as cited by Mai& Gan, 2007). Further, according to Gamage (2003), usage of outdated or inappropriate technology results in low productivity and quality of products, leading to higher expenses to the producer and a decrease in industry competitiveness.A main problem in the SME sector of Sri Lanka is the scarcity of capital due to lack of access to bank facilities,lack of information on bank procedures,long delays and inability to offer guarantees (Gamage, 2003).For the expansion of SME sector in Sri Lanka, inadequate market demand is also identified as a constraint (Abeyratne & Ranasinghe, 2004 as cited by Nishantha & Padmasiri, 2010).

Access to finance

According to Zhang et al. (2016), the access to external finance to SMEs varies essentially fromlarger companies, where only the private debt and equity markets are the options that SMEs have access to whereas larger companies have access to both private and public markets. Based on the studies of Hussain (2018), the most common finding in the existing research is

SMEs encounter external finance restrictions and the limited financial skills also negatively influence SMEs' in relation to the chances of survival, growth and innovation. Fraser et al. (2015), as cited by Hussain (2018), emphasis that an insufficiency of financial management skills is correlated with businesses' access to finance that in return adversely affects firms' ability to access optimal debt and equity that leads toward bankruptcy.A study by World Bank (2013), as cited by Bongomin et al. (2017), indicates that access to finance enhanced firm performance and growth by smoothing market entry, risk reduction, encouraging innovation and entrepreneurial activity particularly in developing economies.

With reference to the seminal work on small business finance, Berger and Udell (1998), as cited by Zhang (2018), conceptualise the supply of capital as a dynamic process that alters the given SMEs' needs and options, and also the degree of information opacity between firms and fund suppliers. Carpenter and Petersen (2002), as cited by Hussain (2018), indicates that, the financial possessions are a pre-requisite for all organizations to initiate, sustain and grow. According to Zhang (2018), not all SMEs that apply for external credit are fruitful (Fairlie and Robb, 2007; Levenson and Willard, 2000; Shen, 2002; Cowling et al., 2012). This happens for numerous reasons including lack of asset cover (Coco, 2000), poor information flows giving increase to moral hazard and adverse selection issues (Diamond, 1984; Myers, 1984; Myers and Majluf, 1984), non-feasible projects, poor management teams, and exogenous factors such as unfavourable economic conditions. According to Kwong et al. (2012), researches have suggested that banks impose their credit processes and criteria subjectively against female entrepreneurs (Fay and Williams, 1991, 1993; Orser and Foster, 1994; Carter et al., 2007; Amatucci and Sohl, 2004; Martin and Wright, 2005). According to Hussain (2018), several of studies were carried out to evaluate the "finance gap" related with SMEs which caused in findings as; to operate efficiently, SMEs require acceptable debt and equity finance, there exists an "equity gap" for SMEs (Brown and Lee, 2014), and they pay higher loan charges (Deakins and Hussain, 1994; Hussain and Matlay, 2007) and need greater collateral (Hussain et al., 2006; Storey, 1994).

Financial Literacy

According to Bongomin et al. (2017), financial literacy referred to as "ability to obtain, understand and evaluate the relevant information necessary to make financial decisions and choices with an awareness of the likely financial consequences" is crucial for access to financial services by SMEs in developing economies. The OECD INFE explains financial literacy as, ‘A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.’ The ANZ Survey of Adult Financial Literacy in Australia (2003; 2005; 2008) adopted the revised UK Adult Financial Capability Framework (FSA 2006a) as cited by Gallery (2011), classified financial literacy into four key segments of numerical literacy and Standard literacy’, ‘financial understanding’, ‘financial competency’ and ‘financial responsibility’; with two broad levels of financial literacy of ‘basic requirement’ and ‘advanced competency’.

According to Schagen & Lines (1996), as cited by Gallery (2011), financial literacy has a diversity of definitions but it is commonly mentioned as “the ability to make informed judgements and to take effective decisions regarding the use and management of money” United Nations (2003), as cited by Bongomin et al. (2017), states that financial literacy, which is the capability to use knowledge and skills to manage financial resources, is a key element to financial success of SMEs in developing economies, especially as a tool for fighting poverty. Scholarly work shows that SMEs run by financial literate entrepreneurs have a higher chance of being more successful than those run by illiterate counterparts. According to (FSA 2006 a), as cited by Gallery (2011), it is reasoned that capability comprises broader concepts than simply knowledge and that financial capability consists of three interrelated elements: knowledge, skills and attitude.

Oseifuah (2010), as cited by Bongomin et al. (2017), suggests that entrepreneurs, irrespective of their age, regularly involved in decision-making activities regarding resource attaining, allocation and utilization and these activities always have financial significances and thus, to be effective, entrepreneurs must be financially literate. Worthington (2006), as cited by Gallery (2011), some researchers interpret financial literacy as a more general understanding of economics and how household decisions are affected by economic conditions and environments, whereas others maintain a more narrowly defined focus on basic money management tools such as budgeting, saving, investing and insurance (Hilgert, Hogarth & Beverly 2003; Mandell 2001).

Growth of Entrepreneurship

According to Panda (2000), entrepreneurial growth is an on-going progression of expansion and renovation in the areas of socio-economic effort, which is an individual’s reply to the environment. Business growth describes the size of the entity (Vijayakumar, 2013). However, Majumdar (2008), emphasized that growth is not uniformly and consistently defined by small business organizations. According to Phillips & Kirchhoff (1989) as cited by Vijayakumar (2013), the growth of SMEs is closely related to the total success and survival of the entity.

The growth of entrepreneurship can be measured based on the capacity utilization ratio, investment per employee, sales to investment ratio and employee satisfaction (Panda, 2000). “Employment, profit, value addition, turnover, total assets and market share are major parameters of growth suggested by theorists” (Majumdar, 2008). According to Wijewardana & Tibbits (1999), as cited by Nishantha (2011), sales can be used to measure growth, However Robson & Obeng (2008), as cited by Nishantha (2011), used the level of employment to the measure growth of the business. Further, as per Vijayakumar (2013), firm growth is not purely accidental, but is dependent on the mindful decision making and selections of the management.

Brush & Vanderwerf (1992), as cited by Vijayakumar (2013), advocate that entity growth is the suitable indicator for measuring the performance of surviving small businesses. This has been accepted by several other researchers as well, and the deviations in the revenue can also be used as a measure of business growth (Hoy et al., 1992; Venkatraman & Ramanujam, 1986; Weinzimmer et al., 1998 as cited by Vijayakumar, 2013). According to Puhakka (2007), the most widely used measures of growth are growth of sales and growth of employees, which should be evaluated over the period concerned, so that it will best reflect the value addition to customers and society.

HYPOTHESES AND THE CONCEPTUAL FRAMEWORK

Access to finance and the Entrepreneurial Growth of SMEs

According to Bongomin et al. (2017), access to finance and financial management are identified in numerous business studies as the most important factor in influencing the survival and growth of SMEs (IFC, 2010; Organization for Economic Cooperation and Development (OECD), 2006a, 2006b). Beck and Demirguc-Kunt (2006), as cited by Bongomin et al. (2017), claim that access to finance permits SMEs in developing economies to obtain productive investments to expand their businesses and to acquire the latest technologies, and thereby ensuring their competitiveness, and fostering innovation, macroeconomic resilience and GDP growth. Based on the studies of Hussain (2018), the most common finding in the existing research is SMEs encounter external finance restrictions and the limited financial skills also

negatively influence SMEs' in relation to the chances of survival, growth and innovation. Fraser et al. (2015), as cited by Hussain (2018), emphasis that an insufficiency of financial management skills is correlated with businesses' access to finance that in return adversely affects firms' ability to access optimal debt and equity that leads toward bankruptcy. Kevane and Wydick (2001), as cited by Bongomin et al. (2017), suggest that the provision of credit to SMEs boosts economic growth in the informal sector through encouraging increased capitalization of business, creating employment opportunities and sustainable income growth. This is reinforced by Aghion and Bolton (1997), as cited by Bongomin et al. (2017), who argue that more credit means further entrepreneurship, further firm formation and economic growth. Carpenter and Petersen (2002), as cited by Hussain (2018), indicates that, the financial possessions are a pre-requisite for all organizations to initiate, sustain and grow.
According to Zhang (2018), current papers argue that "managerial capital" or business skills including financial literacy are main drivers of firm growth and a key factor of productivity (Bloom, Mahajan, McKenzie & Roberts, 2010; Bruhn, Karlan & Schoar, 2010).

Therefore the following hypothesis can be derived from the literature:

Hypothesis1: Access to finance positively influence growth of SMEs in the Northern Province of Sri Lanka.

Moderating effect of financial literacy

According to Cole and Fernando (2008), as cited by Bongomin et al. (2017), financial literacy is a vital determinant of access to finance. Further Bongomin et al. (2017), emphasised that, low levels of financial literacy may avoid the acceptance of more complicated financial products including insurance, as investor may be uncertain to buy a product whose utility they do not fully comprehend. According to Zhang (2018), prior research it proposes that lack of financial literacy is one of the reasons of inertia in financial decision-making. As per Bongomin et al. (2017), financial literacy allows managers and owners of SMEs in developing economies to make suitable financial decisions and selections on the complex financial products offered by the financial systems without being intimidated and the available evidence proves a strong association between financial literacy and entrepreneurs' success. According to Fatoki (2014), financial literacy helps to progress behaviours such as the avoidance of over-indebtedness and it enables SMEs to make better financial decisions and to understand and manage risk.

De Mel et al. (2012), as cited by Bongomin et al. (2017), claim that financial literacy through business skills attainment is a vital driver of SMEs' growth and a key factor of productivity. Bruhn and Zia (2011), as cited by Fatoki (2014), examined the impact of business and financial literacy on firm outcomes of young entrepreneurs where results indicate that entrepreneurs with higher levels of financial literacy demonstrates better business performance and sales. Njoroge and Gathungu (2013), as cited by Bongomin et al. (2017), individuals with financial literacy skills tend to make better financial decisions with fewer management mistakes, thus, sound financial management is critical to the survival and management of SMEs as financial literacy skills permits and trains SMEs owners so that they can evaluate financial products and make informed decisions.

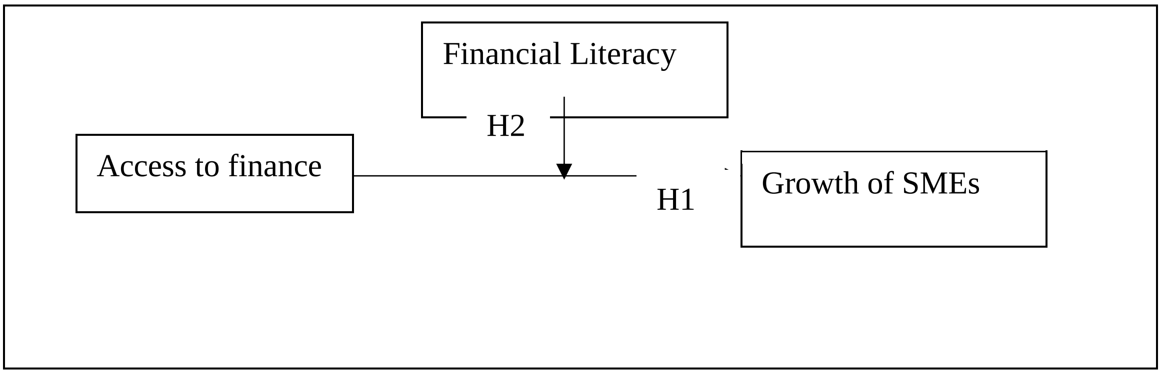
Andoh and Nunoo (2011), as cited by Fatoki (2014), find that the financial literacy of owners of SMEs is a very important factor in explaining utilization of financial services by SMEs.

Therefore the following hypothesis can be derived from the literature:

Hypothesis 2: Financial literacy moderates the relationship between access to finance and the growth of SMEs in the Northern Province of Sri Lanka.

In view of the above hypothesis the conceptual model has been developed.

Figure 1: Conceptual Framework of the Study



Source: Author

METHODOLOGY

Sample

This research is a quantitative study with a sample of 231 entrepreneurs of SME sector taken from the Northern Province of Sri Lanka. The respondents represent the SMEs of various industries located in the Northern Province of Sri Lanka. The economic activities are classified using the latest version of the Sri Lanka Standard Industrial Classification (SLSIC) developed by the Department of Census and Statistics which is compliant with the International Standard Industrial Classification (ISIC Revision IV) developed by the United Nations Statistical Commission in 2008. Table 1 illustrates the criteria for classification.

Table 1: Identifying Small and Medium Enterprises (SMEs)

Major Economic Sector	SME Groups	Criteria (Number of Persons Engaged)
Industry and Construction	Small	5 to 24
	Medium	25 to 199
	Large	200 and above
Trade	Small	4 to 14
	Medium	15 to 34
	Large	35 and above
Services	Small	5 to 15
	Medium	16 to 74
	Large	75 and above

Source: Department of Census and Statistics, 2013/14.

The total number of persons engaged in the business during the survey period is considered for the research purpose which includes; permanent and temporary employees, hired workers, ownaccount workers, unpaid-family workers and active partners. Looking into the regional distribution of SMEs according to the Department of Census and Statistics, the sample is selected from the five districts of the Northern Province; Jaffna, Killinochchi, Mannar, Vavuniya, Mullaitivu. Respondents are selected on the basis of convenience and ease of access to information. The confidentiality of the information collected is assured to the participants.

The pilot survey was conducted with 30 respondents to test the reliability and face validity of the data collection. Various examinations were made in order to ensure the face validity of the sample data collection using the pilot survey. Initially the questionnaire was distributed to experts in the field in order to obtain their feedback to test the face validity. Based on the pilot survey the Cronbach alpha was calculated in SPSS to check the reliability, which is the extent to which the test emphasizes consistency of measurement. The Cronbach alpha is the estimate of internal consistency associated with the scores of the scale. The pilot survey resulted in a Cronbach alpha greater than 0.5 for all the variables. Measurements are reliable to the degree to which they are repeatable which was ensured through the Cronbach alpha calculation.

Measures

The measurement scales used by Bongomin et al. (2017), were obtained for the measurement of access to finance, financial literacy and growth of business. All items are scored on a five-point

Likert scale anchored with 'strongly disagree' (1) to 'strongly agree' (5).

DATA ANALYSIS AND RESULTS

The data collected was analysed through a structural equation modelling (SEM) technique using SPSS and AMOS packages. According to Hair et al. (2006), SEM is a method where the dependent variable's relationships are separately identified, which gives the most suitable and efficient estimation technique for the sequence of separate multiple regression equations. As the initial step, the data collected was checked for accuracy using frequency analysis and the missing values were identified. The methods to deal with missing data can be, to simply delete any cases with missing values on any variable in the analysis or to substitute the missing value. According to Hair et al. (2006), if the missing values are under 10% of the total sample, any imputation method can be applied where, mean substitution and regression imputation are two imputation techniques that could be used to compute the replacement value. According to Roth (1994), the normally used missing data handling technique is, where the missing data points are substituted by that variable's mean. Since in this study only a few cases representing less than 3% were missing, the cases have been replaced with the mean value of that indicator.

According to Hair et al. (2006), outliers are the observations with distinct differences to other observations. Further Hair et al. (2006), also emphasised that, boxplot analysis, which reflects the data distribution of variables, will highlight the outliers and extreme values by symbols outside the whiskers. Accordingly in this study, outliers were identified throughboxplot graph. After identifying the outliers based on the graph, the z-values for each value of the variables were computed and using a cut off value of 3, only 11 cases out of 231 responses were identified as outliers and deleted. Therefore, after treating for missing values and checking for outliers, 220 responses were considered for the final data analysis. This sample size sounds adequate for the study based on the justification of Hair et al. (2006), where it is specified that a, minimum sample size should be 100 for models containing five or fewer constructs or variables and thus, the conceptual frame work of this study contains only three variables.

The study specially focuses on the Northern Province of Sri Lanka, where the respondents were selected from the five districts. The total respondents were 220 SME entrepreneurs, where 139 were selected from Jaffna amounting to 63.2% of the total sample, 36 respondents were from Vavuniya, 29 respondents from Killinochchi, 4 respondents from Mullaitivu and 12 respondents from Mannar. Looking into the sector classification, the SMEs represent three sectors, namely, Industry, Service and Trade. Out of the total sample collected 138 responses were from the Trade sector business representing 62.7%, 44 represent the Industrial sector and 38 represent the Service sector.
Table 2, reflects the mean, standard deviation and variance of the study variables.

Table 2: Descriptive statistics of the variable

				Skewness		Kurtosis	
	Mean	Std. Deviation	Variance	Statistic	Std. Error	Statistic	Std. Error
Financial Literacy	3.7601	.50943	.260	-.874	.164	1.136	.327
Access to finance	3.8259	.51410	.264	-.859	.164	1.097	.327
Business growth	3.6395	.47564	.226	-.850	.164	.962	.327

Source: Survey data

Most of the statistical tests assume that there is an equal population variance and therefore, the Levene test has to be performed if there are two or more groups in the population (Gastwirth, Gel, & Miao, 2009). As the respondents for this study are from three different sectors, the Levine’s test was conducted to ensure that there is no significant differences in measuring the study variables within and among the groups. The results reported that there are no significant variations among groups and therefore responses were considered as a whole for analysis.

This study followed a two-step SEM process. According to Hair et al. (2006), in a two-step process, first the fit and the validity of the proposed measurement model is obtained and then the structural theory is tested. Further, the authors mention that, distinct testing of the measurement model through a two-step approach is vital because a valid structural theory cannot be shown with bad measures (Hair et al., 2006).

Measurement model

Focusing on the measurement model of financial literacy, the following findings were identified. Even though the pilot test was conducted and the results were verified, during the analysis of the final sample collected it was observed that certain questions had not clearly understood by the respondents. As these indicators were not significant in measuring the variable, they have been dropped and the model has been refined with six indicators. The model fit was verified for a refined measurement model where the CMIN/DF is 5.189 and the Goodness of Fit Indicator (GFI) is 0.938. In relation to access to finance, the measurement model was tested by AMOS and based on the output, the indicators having less than 0.45 standardized regression weights were deleted from the model to increase the model fit. Tests were done to verify the refined measurement model with six indicators, where the CMIN/DF is 3.040 and the GFI is 0.958. In relation to business growth, the measurement model was tested by AMOS and based on the output, the indicators having less than 0.45 standardized regression weights were deleted from the model to increase the model fit. Tests were done to verify the refined measurement model where, the CMIN/DF is 3.872 and the GFI is 0.935.

Based on the refined measurement models for individual variables, the complete measurement model was developed and tested where, the CMIN/DF is 5.105 and the GFI is 0.739. According to Benter & Chou (1987), in order to produce a practical set of results, the SEM programs need a satisfactory number of known correlations or covariance as inputs. That has also been verified in the refined model. Focusing on the output reported by AMOS in relation to the refined complete measurement model, the results indicated a good fit of the measurement model. The results of absolute indices are; GFI – 0.739, RMSEA – 0.153. The incremental and parsimony indices are; NFI – 0.470, TLI – 0.422, CFI – 0.507 and AGFI – 0.656.

Structural Model

Based on the refined model, the hypotheses were tested for the direct effect and the interaction effect. Focusing on the direct effect of the study, it was proven that there is a strong significant relationship between access to finance and entrepreneurial growth of the firm. The value of CMIN/DF is 4.882 and the GFI is 0.867. The hypothesis for the direct effect was proven significant where p = 0.000, which clearly indicates that access to finance significantly influence the growth of the SMEs. The path correlation between the two variables is 0.80. Focusing on the output reported by AMOS in relation to the hypothesis for direct effect, the results indicated a good fit structural model. The results of absolute indices are; GFI – 0.867, RMSEA – 0.133. The incremental and parsimony indices are; NFI – 0.667, TLI – 0.629, CFI – 0.710 and AGFI – 0.795.

Therefore the output clearly indicate that hypothesis one is proven in the study.

Focusing on the interaction effect, based on the test it is evident that financial literacy significantly moderates the relationship between access to finance and growth of the entity. The hypothesis for the interaction effect, for the moderator, financial literacy was proven significant where p = 0.016, which clearly indicates that financial literacy significantly influence the relationship between access to finance and revenue growth of the SMEs. The path correlation between the two variables is 0.58.

DISCUSSION

The civil war in the Northern Province created a causality list of well over 100,000 killed and many more injured, mentally affected, displaced both internally and overseas and the total ecosystem destroyed (Somasundaram & Sivayokan, 2013). As SMEs can promote resilience of communities, the study examined the entrepreneurial growth of Northern entrepreneurs. Further, having finished the war, there is no remarkable progress in the development of SMEs (Vijayakumar, 2013). According to the statement of Central Bank Governor Mahendran (2009), the average debt of the average family in Northern Province has increased from 52,000 rupees to 194,000 rupees based on Central Bank surveys, where this emphasis the need for financial literacy by holding educational programs especially for SME sector to guide them on better borrowing techniques.

The study shows that there is a strong positive relationship between access to finance and entrepreneurial growth, and this confirms the previous arguments of most literature in this area of study. Hussain (2018), the most common finding in the existing research is SMEs encounter external finance restrictions and the limited financial skills also negatively influence SMEs' in relation to the chances of survival, growth and innovation. Fraser et al. (2015), as cited by Hussain (2018), emphasis that an insufficiency of financial management skills is correlated with businesses' access to finance that in return adversely affects firms' ability to access optimal debt and equity that leads toward bankruptcy. Based on the survey results, financial literacy can be seen to positively influence access to finance resulting in entrepreneurial growth. This has reinstated the previous findings. According to Cole and Fernando (2008), as cited by Bongomin et al. (2017), financial literacy is a vital determinant of access to finance. Further Bongomin et al. (2017), emphasised that, low levels of financial literacy may avoid the acceptance of more complicated financial products including insurance, as investor may be uncertain to buy a product whose utility they do not fully comprehend.

Another key observation made based on survey results was, when looking into the background information regarding the entrepreneurs, it was evident that most entrepreneurs recently emerging in the Northern Province give preference to trade sector business, as their willingness to take a risk is less. Looking at the year of establishment and the sector of the businesses, it was observed that most of the businesses that emerged during the last three to four years were primarily into trade. This reflects that entrepreneurs of the Northern Province who were highly involved in the agricultural and industrial sectors previously are now shifting to trade due to its 'risk averse nature' and short term profit orientation. Based on the discussions had with some of the entrepreneurs in Jaffna, Vavuniya and Killinochchi, it was identified that, soon after the end of the ethnic conflict, many businesses from the South, particularly traders from Colombo, opened up branches in the Northern Province. According to Miriyagalla (2014), a substantial enhancement to trading in the North took place when the main land route, the A9, was opened and goods could be transported conveniently. However, this mainly focuses on short term gains and in the long run sustaining profit margins is challenging due to the high levels of competition.

Further, during the study it was also identified that the average debt of the average family in Northern Province has increased significantly in the recent years. According to Mithula (2015), representing the lack of proper financial literacy and the discipline for financially stability, is one of the critical benchmarks for a successful and a sustainable business. Thus, this area needs to be further investigated in the Sri Lankan context.

Theoretical implications

Perusing the literature, it can be seen that there are several studies that have been carried out to emphasize the factors affecting entrepreneurial characteristics and orientation and thereby it influences the growth of the business. Further there are studies relating to the relationship between access to finance and business growth. However, according to Oswald (2008), as cited by Fairoz, Hirobumi & Tanaka (2010), there is limited understanding on the difference in the rate of entrepreneurship growth across a nation. Further, academics also have an inadequate understanding of the difference in access to finance and entrepreneurial success of firms across countries. (Shane, 1992 as cited by Fairoz et al., 2010). Thus, appropriate studies are needed to better recognize the degree of access to finance and its impact on business performance of SMEs. According to Zhang (2018), prior research it proposes that lack of financial literacy is one of the reasons of inertia in financial decision-making and there is a limited understanding on the difference in the rate of financial literacy across a nation.

According to the ambidextrous management theory in entrepreneurial growth companies (Moore, 1986; Bygrave, 1989) entrepreneurship is a process where entrepreneurial orientation turns into implementation and thereby leads to business growth. However, the effect of external factors such as access to finance and financial literacy on this relationship has not been examined. Thus, this study contributes to existing knowledge by incorporating the moderating effect of financial literacy in the relationship between access to finance and economic growth.

Managerial implications

Due to the immense advantages of the SME sector as a developing economy, Sri Lanka should focus on entrepreneurial development in this sector. This study particularly focuses on the Northern Province as there are only a few surveys and studies that have focused on this area due to the ethnic conflict that prevailed until 2009. Focusing on the statistical information available in the labour force survey conducted by the Department of Census and Statistics the average unemployment rate in Sri Lanka was 4.4% in 2016; however, the unemployment rate in the Northern Province was 6.3%. Despite the numerous programmes undertaken by the government and other non-governmental organization in relation to post war recovery in the Northern Province, the unemployment rate seems significantly high. According to the statement of Central Bank Governor Mahendran (2009), the average debt of the average family in Northern Province has increased from 52,000 rupees to 194,000 rupees based on Central Bank surveys, where this emphasis the need for financial literacy by holding educational programs especially for SME sector to guide them on better borrowing techniques.

One major implication of this study is that the findings will give existing managers and potential investors in the Northern Province an understanding of the access of finance to SMEs in this province and the influence of that on business growth. This will ensure the potential growth of the SMEs in these districts and thereby will reduce the unemployment and underemployment prevailing in this Province. This study also helps the Governmental and Non-governmental institutions to understand the level of financial literacy in the Northern Province, which would provide guidance for their future projects and policy implementation. The progress of SMEs is one of the essential segments in government policy making (Vijayakumar, 2013).

Social implications

One of the key challenges faced by Sri Lanka at present is to ensure post war growth by minimizing regional growth disparities by developing the living standard of the people. Particularly the Northern Province, which is slowly recovering after 2009, at the end of a long period of a distinctive civil war, needs to be paid more attention in order to ensure regional development across the country. The SME sector has an immense likelihood to produce maximum socio economic benefits to the country with little investment (Gamage, 2003). Since there is a high potential for success in SMEs in Sri Lanka particularly in the Northern Province, the focus needs to be placed on identifying the business growth of the SME sector. Thereby the Government can create new employment opportunities and improve the living standard of the Province. Even though several corrective actions have been taken to improve SMEs, their contributions have been insufficient, due to the fact that there is no operative public-private participation and lack of coordination (Vijayakumar & Marek, 2012, as cited by Vijayakumar, 2013). Therefore, by better understanding the present context of the Northern Province, both public and private sectors can focus on social and economic development.

Focusing on the employed population, the unemployment rate and the poverty levels in the Northern Province, this study has contributed identifying level of access to finance to the SME sector to achieve a satisfactory level of employment opportunities and growth. Even though the internal conflict ended in 2009, the living standard of most displaced people, particularly those in Jaffna, is yet to be improved (Vijayakumar, 2013). Therefore, the government should focus on proper policy development and implementation to encourage new entrepreneurial start-ups. Further, during the study it was identified that the average debt

of the average family in Northern Province has increased. Thus, this area needs to be further investigated in the Sri Lankan context.
Sri Lanka needs an external body to effectively regulate the financial service's processes in order to improve the financial literacy while protecting the financial consumers.

Limitations and future research

This study focused on the determinants of entrepreneurial growth in the Northern Province of Sri Lanka, and therefore the study is limited to a single province of Sri Lanka. Future studies can emphasise on covering both the Northern and Eastern Provinces, particularly highlighting post war entrepreneurship. The Northern Province consists of different ethnic communities, however, the study did not focus on the impact of ethnic or cultural differences on financial literacy and access to finance of the entrepreneurs. Therefore, in future researchers can focus on the ethnic or cultural differences among the entrepreneurs of the Northern and Eastern Provinces. Further, there are numerous definitions given for SMEs by different entities and the study has considered the definition provided by the Department of Census and Statistics, which classifies the SMEs, based only on the number of people engaged in the enterprise.

CONCLUSIONS

The aim of this paper is to better understand the growth of the SME Sector in the Northern Province of Sri Lanka. SMEs and individual entrepreneurs would continue to play critically important roles in the growth of developing economies (Baumol, 2004 as cited by Majumdar, 2008). Zahra (1999), as cited by Tseng (2012), notes that entrepreneurial progression has been reflected as one of the vital drivers for socioeconomic development because it provides numerous job opportunities, offers a variety of consumer goods and services, and generally increases national prosperity and competitiveness. Therefore, as a developing economy, Sri Lanka should focus on entrepreneurial development. Thus the purpose of this study was to identify the access to finance for SMEs in the Northern Province of Sri Lanka and the moderating effect of financial literacy on the relationship between access to finance and business growth.

The study shows that there is a strong positive relationship between access to finance and entrepreneurial growth, and this confirms the previous arguments of most literature in this area of study. Based on the survey results, financial literacy can be seen to positively influence access to finance resulting in entrepreneurial growth. Another key observation made based on the survey results was, that the demographic information reveals that most of the entrepreneurship recently emerging in the Northern Province gives preference to trade sector business as entrepreneur's willingness to take risk is relatively low. Further, during the study it was identified that the average debt of the average family in Northern Province has increased in recent years. Thus, this area needs to be further investigated in the Sri Lankan context.

References

Altinay, L. (2008),"The relationship between an entrepreneur's culture and the entrepreneurial behaviour of the firm",*Journal of Small Business and Enterprise Development*, Vol.15, No.1, pp.111-129.

Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., Malings, C. A., (2018),"Determinants of SMMEs growth in post war communities in developing countries: Testing the interaction effect of government support", *World Journal of Entrepreneurship, Management andSustainable Development*,Vol.14, No.1, pp. 50-73.

Central Bank of Sri Lanka, (2016),*Annual Report*, Colombo.

Davcik, N. (2014), "The use and misuse of structural equation modelling in management research: A review and critique",*Journal of Advances in Management Research*, Vol.11, No.1, pp. 47-81.

Department of Census and Statistics, (2016),*Labour Force Survey*, Colombo.

Gallery, N., Newton, C., & Palm, C.(2011), "Framework for Assessing Financial Literacy and Superannuation Investment Choice Decisions", *Australasian Accounting, Business and Finance Journal*, Vol.5, No.2, pp.3-22.

Gamage, A. S. (2003). Small and medium enterprise development in Sri Lanka: a review. http://wwwbiz.meijo-u.ac.jp/semb/ronso/no3_4.2018.08.12

Gastwirth, J. L., Gel, Y. R., & Miao, W. (2009),"The impact of Levene's test of equality of variances on statistical theory and practice",*Statistical Science*, Vol.24, No.3, pp.343-360.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006),*Multivariate data analysis*. Upper Saddle River: Pearson Prentice Hall.

Hussain, J., Salia, S., & Karim, A. (2018),Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK, Journal of Small Business and Enterprise Development. https://doi.org/10.1108/JSBED-01-2018-0021.2018.08.29

Israel, A. N., Sulaiman, L. A., Olugbeng, A. F., Folake, O. C. (2014),"Drivers of economic growth in Nigeria: Empirical investigation of small and medium scale enterprises (SMEs)",*Journal of social science and humanities,* Vol.1, No.19, pp.619-631.

Joseph, R. (2014). Challenges and issues faced by the local SME sector. Daily News.http://www.dailynews.lk/.*2015.11.02*

Kwong, C., Jones-Evans, D., & Thompson, P. (2012), "Differences in perceptions ofaccess to finance between potential male and female entrepreneurs: Evidence from the UK". *International Journal of Entrepreneurial Behavior & Research*, Vol.18, No.1, pp.75-97.

Little, T. D., Card, N. A., Bovaird, J. A., Preacher, K. J., & Crandall, C. S. (2007),*Modelling contextual effects in longitudinal studies*. New York: Psychology Press.

Mai, Y., & Gan, Z. (2007),"Entrepreneurial opportunities, capacities and entrepreneurial environments: Evidence from Chinese GEM data",*Chinese Management Studies*, Vol.1, No.4, pp.216-224.

Majumdar, S. (2008),"Modelling growth strategy in small entrepreneurial business organisations",*Journal of entrepreneurship*, Vol.17, No.2, pp.157-168.

Martinez-Lopez, F. J., Gazquez-Abad, J. C., & Sousa, C. M. (2013),"Structural equation modelling in marketing and business research: Critical issues and practical recommendations",*European Journal of Marketing*, Vol.47, No.1, pp.115-152.

Ministry of Finance and Planning, (2014),*Statistical Pocket Book,* Colombo.

Miriyagalla, D. (2014), "Locking-in and locking-out business and economic reconciliation in the conflict-affected region of Sri Lanka",*Journal of Business and Economic Development*, Vol.2, No.2, pp.13-25.

Mithula, G. (2015). Rise of Financial Institutions & Northern Province Debt Trap. Colombo Telegraphhttps://www.colombotelegraph.com/.2018.08.29

Nair, K. R. G., & Pandey, A. (2006),"Characteristics of entrepreneurs: an empirical analysis",*Journal of Entrepreneurship*, Vol.15, No.1,pp.47-61.

Nishantha, B., & Padmasiri, H. N. (2010),Development of Small and Medium Enterprises in Post Conflict Sri lanka:
Opportunities, Challenges and Policy Implications.http://hdl.handle.net/10519/626. 2018.08.29

Panda, N. M. (2000),"What brings entrepreneurial success in a developing region?",*Journal of entrepreneurship*, Vol. 9, No. 2, pp.199-212.

Ratnayake, R. M. T. H., Menike E. D. T. M. N. D., & Perera, T. (2013),"Factors Affecting Growth of SMEs in Tourism Industry in Sri Lanka",*Sri Lankan Journal of Management*, Vol.18, No.3, pp.113-137.

Somasundaram, D., & Sivayokan, S. (2013), "Rebuilding community resilience in a post-war context: developing insight and recommendations-a qualitative study in Northern Sri Lanka",*International journal of mental health systems*, Vol.7, No.1, pp.1-15.

Thompson, J. L. (1999),"The world of the entrepreneur-a new perspective",*Journal of workplace learning*, Vol.11, No.6, pp.209-224.

Vijayakumar, S. (2013), "Growth and issues of small and medium enterprises in post conflict Jaffna Sri Lanka", *Economia. Seria Management*, Vol.16, No.1, pp.38-53.

Weerakkody, D. (2013). SME: Backbone of an economy. The Sunday Times.http://www.sundaytimes.lk/.2018.08.29

Wijeyeratnam, I. P. W., & Perera, T. (2013),"Barriers to Women's Entrepreneurship: SME Sector in Sri Lanka". *Sri Lankan Journal of Management*, Vol.18, No.1&2, pp.51-81.

Zhang, N. (2016),"Access to bank finance for UK SMEs in the wake of the recent financial crisis", *International Journal of Entrepreneurial Behavior & Research*, Vol.22, No.6, pp.903-932.

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