Journal of Information Systems Engineering and Management
2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Is Human Capital a Critical Consideration when Determining the Use of Financial Bootstrapping?

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ARTICLE INFO

Received: 24 Dec 2024

Revised: 15 Feb 2025

Accepted: 26 Feb 2025

ABSTRACT

This study examines the effect of human capital(HC) components on the use of financial bootstrapping (FB) by small and medium-scale enterprises (SMEs) in Sri Lanka. As FB is emerging as a resource-dependent financing strategy for fulfilling the financial constraints experienced by small businesses, it is imperative to explore the potential determinants that affect the choice of FB. This quantitative study followed the deductive approach under the positivist research paradigm. A cross-sectional survey was conducted using a self-administered structured questionnaire covering a random sample of 237 SMEs for data collection. Partial least squares structural equation modelling (PLS-SEM) was employed for data analysis. The findings revealed a significant positive impact of the level of education and managerial experience on the use of FB, complying with the outcomes of prior scholarly work. However, the business training shows an insignificant negative impact providing contradictory empirical evidence. This study suggests the necessity of redesigning existing training programmes carried out by policymakers and diverse bodies facilitating SMEs. And, it further implies that a higher level of education and managerial experience, leads to a, higher potential to employ alternative financing strategies.

Keyword: Financial bootstrapping, Human capital, Small and medium scale businesses, Sri Lanka, South Asia, PLS-SEM.

1. INTRODUCTION

The concept of financial bootstrapping (FB) has attracted the attention of scholars and practitioners with the famous work by Bhide (1992) in which FB is explained as "launching ventures with modest personal funds." Carter & Van Auken (2005) further elaborated on this view as an alternative financing method to replace traditional debt from financial institutions and personal equity. Thus, FB represents the creative and innovative mechanisms available for acquiring resources via informal pathways that eliminate long-term external finance (Jayawarna *et al.*, 2015; Winborg, 2015). However, the necessity of FB is rigorously felt by small and medium-scale enterprises (SMEs), owing to the specific characteristics inherent to these businesses.

Although SMEs are regarded as economic engines (Wijayarathna & Perera, 2018), they face ample challenges equivalent to large corporations amidst substantial economic contributions (Asgary *et al.*, 2020). This predicament is pivotal in developing economies, which are confronted with struggles such as low industrial output, high graduate unemployment, inefficient resource utilization, and an influx of foreign goods into local markets (Lomatey *et al.*, 2020). In addition, lack of access to finance has been identified as a common

Journal of Information Systems Engineering and Management
2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

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stumbling block for small businesses by plenty of research studies (Khalil, Hassan & Khan, 2020) which cover different continents.

Within the Sri Lankan context, SMEs account for more than 90% of total enterprises, 45% of total employment, and 52% of the gross domestic product (GDP) (Athapaththu & Nishantha, 2018; Menike, 2019). The most pressing issue for SMEs within the local context is the difficulty of obtaining financing facilities at concessionary rates (Deyshappriya, 2019) from formal sources. Access to bank financing, particularly long-term borrowings, is hampered by a number of factors, including information asymmetry, inadequate collateral, poor creditworthiness, short or no credit history, underdeveloped bank-borrower relationships, and high transaction costs (Gupta and Gregoriou, 2018). As explained by Owen *et al.,* (2019), these factors specifically information asymmetries, create a finance gap for SMEs. When faced with financial constraints, businesses often resort to bootstrapping strategies (Al Issa, 2020). However, an entrepreneur is the main actor in an SME (Mayr *et al.*, 2020) and the decision to adopt FB to secure resources becomes an outcome of entrepreneurial activity.

Entrepreneurs must recognize that finance is a critical resource for their businesses and failure to comprehend the various financing options together with their characteristics may severely impede the development of these ventures. Even if they have extensive business experience, most entrepreneurs have a limited understanding of diverse finance options (Seghers *et al.*, 2012). Entrepreneurs' knowledge can be increased via enhanced human capital by widening awareness and exposure to alternative financing strategies. Thus, it is plausible that the use of FB within a business depends mostly on the entrepreneur's human capital.

Accordingly, this study aimed to unveil the impact of entrepreneurs' human capital on the use of financial bootstrapping within the Sri Lankan context. The study of FB is a completely novel concern in most developing countries (Khalil, Hassan & Khan, 2020) and a paucity of scholarly work is evident in Sri Lanka. Poverty alleviation is regarded as the most significant challenge for South Asians, and SME expansion has been identified as a key contributor to poverty reduction (Manzoor *et al.*, 2019). To that end, the identification of critical concerns that unlock the potential to expand small businesses by eliminating restrictions on raising the required finance is vital.

The remainder of this paper is organized as follows. The next section presents a literature review covering both theoretical and empirical wings. The third section explains the research methodology of the study, and section four is dedicated to presenting the outcomes of the data analysis together with a discussion. The final section provides concluding remarks.

2. LITERATURE REVIEW

This section presents the theoretical and empirical evidence associated with the relationship between human capital and financial bootstrapping.

2.1 Pecking order theory (POT)

The concept of Pecking order was initiated by Donaldson in 1961. This theory emphasizes that firms prefer to utilize internal financing rather than external sources of financing, when and where possible. Later, Myers (1984) and Myers & Majluf (1984) expanded this theory by focusing on shareholder relations and valuation. According to this theory, entrepreneurs first utilize internal financing methods before seeking external methods, such as debt and equity (Donaldson, 1961; Myers, 1984; Myers & Majluf, 1984). Further, information asymmetries, mortgage requirements, comparatively higher costs associated with the issuance of debt and equity, and the fear of losing control lead entrepreneurs to follow the pecking order (Minola & Cassia, 2013). Moreover, the characteristics of the business result in potential finance providers offering different demands for firm performance (Cassar, 2004). Here, the impact of the diverse demands raised by financiers is difficult to assess due to information asymmetries (Colombo *et al.,* 2013). Hence, information asymmetry plays a crucial role in obtaining financing and determining the cost of debt financing (Colombo *et al.*, 2013; Degryse *et al.*, 2012). Thus, entrepreneurs seek to adopt internally generated funds before external sources to address issues arising from information asymmetry, financier demands and excessive costs accompanied by debt and equity (Padachi *et al.*, 2012).

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SMEs are largely accepted as financially constrained entities that are not listed in the capital markets. Moreover, they have less management capacity and organizational ability than large-scale businesses. Since most SME entrepreneurs face difficulties in raising capital through external financing sources, they have to use financial bootstrapping methods (Osei-Assibey, Bokpin & Twerefou, 2012). Hence, the financing inclinations of SME owners can be explained within the framework of the pecking order theory. Further, empirical studies have concluded that owners of these businesses assign priority to internal financing sources rather than external options during each potential occasion (Atherton, 2012; Padachi *et al.*, 2012). When considering the external funding alternatives, the debt becomes the priority. And the equity is considered as the last resort. Moreover, the stance of the POT as a financial model for the SMEs was proved over years with the scholarly evidence. It is obvious with the inverse relationship between the leverage and the profitability (Lim, 2012; Newman *et al.,* 2012). However, the pecking order theory applies only to the owners or managers who employ internal finance before the external sources of financing (Degryse *et al.*, 2012; Osei-Assibey *et al.*, 2012).

2.2 Resource dependency theory (RDT)

The RDT states that the tangible and intangible resources owned by business entities are dissimilar and can be arranged in numerous meaningful ways, enabling the business to differentiate itself from competitors (Penrose, 1959). Pfeffer & Salancik (1978) emphasize the importance of diverse resources in accomplishing the proper functioning of a business. RDT argues that it is challenging for a business to sustain and grow alone, instead of interacting with other firms to accomplish resource requirements. Accordingly, networking becomes the fundamental feature of RDT. Therefore, firms must uphold favorable relationships with each other, enabling a fast and easy flow of resources. The literature survey witnesses that the RDT is the basis for most scholarly work on financial bootstrapping (Jones and Jayawarna, 2010; Jayawarna *et al.*, 2011; Neeley & Auken, 2012; Grichnik *et al.*, 2014; Jayawarna *et al.*, 2015; Winborg, 2015). Financial bootstrapping completely depends on and becomes successful only with networking, which is a key element in RDT. Thus, the theoretical lens of RDT is the best match for explaining the use of FB by SMEs (Ebben & Johnson, 2006).

2.3 Financial Bootstrapping

The development of a diverse set of financial bootstrapping methods provides strategic solutions for prevalent finance needs. Since business activities are different, entrepreneurs seek to fulfill their respective financing requirements in various ways (Malmström, 2014). Hence, scholars have discovered diverse methods of financial bootstrapping in the past few decades (Winborg & Landstrom, 2001; Harrison *et al.*,2004; Perry *et al.*, 2011, Tomory, 2011). Winborg & Landstrom (2001) disclosed 32 bootstrapping techniques used by SMEs. They identified six different FB clusters. These are; “delaying bootstrappers”, “relationship-oriented bootstrappers”, “subsidy-oriented bootstrappers”, “minimizing bootstrappers”, “private owner-financed bootstrappers” and “non-bootstrappers”. Furthermore, the diverse orientations of these groups were recognized in terms of resource acquisition behaviors. The differences can be listed within the areas of general resource acquisition, internal mode, social mode, and quasi-market. Mac, Bhaird and Lynn (2015) stressed the significance of FB for the sustainable growth of high-technology firms. Although previous studies were based on European or North American contexts, Fatoki (2014) studied emerging micro-firms in South Africa. He investigated FB methods employed by the retail sector business community. The findings revealed four widely used FB methods. They are “owners’ resources,” “accounts receivable management,” “sharing resources” and “delaying payments.”

Waleczek *et al.*, (2018) studied the utilization of FB by analyzing first-hand data collected from a large sample in Germany. They found that bootstrapping behavior is a strategic choice rather than a necessity. There was no significant impact of higher education level on the use of the owner’s FB. Nevertheless, work experience and occupational experience positively and significantly influenced the use of the owner’s FB. However, entrepreneurial experience suggests that the use of an owner’s FB has a negative impact, indicating serial entrepreneurs' preferences for external debt. Hovarth (2019) analyzed the potential moderating role of formal education and entrepreneurial training on the link between FB and firm performance. Her study is based on the small Hungarian businesses. The findings of this study revealed that network-based bootstrapping practices (shared resources, payment conditions, and credit relationships) have a partial positive effect on employment growth. However, university education does not determine the relationship between FB and

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e-ISSN: 2468-4376
https://www.jisem-journal.com/

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performance, but entrepreneurship training positively moderates it. Khalil *et al.*, (2020) presented evidence that motivation, growth intention, and previous exposure to family businesses have a positive and significant impact on the use of FB. In addition, they found that entrepreneurial competencies moderated the association between endogenous and exogenous variables.

Mabonga (2020) reveals that because of the comparatively lower cost associated with FB, it can be viewed as the best alternative source of finance for SMEs. With a sample selected from Kenyan SMEs, he revealed owner financing, minimization of accounts receivables, joint utilization, delaying payments, and minimization of capital invested in stocks as FB strategies employed. However, Muo *et al.*, (2020) reported a contradictory finding. Accordingly, owner financing, joint utilization, and delaying payments FB techniques do not affect the growth of SMEs in Lagos. This study further explains that owner finance is unable to support small businesses in terms of growth objectives. In addition, delaying payments affects the reputation of the business and its owner, resulting in a negative effect on growth. Kum *et al.*, (2020) investigated the awareness and knowledge of FB techniques adopted by migrant entrepreneurs in Cape Town, South Africa. They discovered the practical applicability of several FB techniques using a selected sample of entrepreneurs. However, the researchers were unable to establish that this situation was a result of awareness and knowledge, as entrepreneurs with little or no knowledge have applied FB strategies within their businesses. On the other hand, Dika *et al.*, (2021) studied the alternative funding strategies available since MSMEs have limited access to the banking sector within the Indonesian context. They analyzed the effect of FB on business performance by considering the moderating effect of financial literacy. The results reveal that FB leads to enhanced business performance when supported by financial literacy.

Rutherford & Phillips (2021) explain that the understanding of the antecedents and outcomes of FB has grown throughout the decades since the initiation of the construct in the late 1980s. This expanded understanding has caused the construct to evolve from phenomenological roots into a more theoretically grounded construct. Further, Rita *et al.*, (2021) reveal that within a pandemic context, entrepreneurs take advantage of government support facilities, FB, and peer-to-peer lending to support their business performances. According to the results of this study, innovation mediates the impact of peer-to-peer lending on business performance and facilitates the impact of FB on business performance. In addition, Block & Fisch (2021) recently examined the role of FB in the context of the COVID-19 pandemic and showed a positive association between the severity of the crisis and the use of FB to address resource deficiencies. According to their explanation, when the situation becomes severe, the application of FB techniques has increased by self-employed personnel concerning self-owned businesses to mitigate the adverse effects of the crisis.

2.4 Human capital and financial bootstrapping

Entrepreneurs' HC can be predicted as the potential force of action influencing the implementation of FB activities at the firm level. Various scholars have provided evidence of an association between the HC components and FB techniques. Neeley & Auken (2009) used a questionnaire to analyze the influence of education, age, and gender on the financing methods of 247 business owners in Illinois. The questionnaire developed by Winborg & Landstrom (2001) was used. The findings of this study illustrate a significant difference among the personal characteristics and bootstrapping techniques utilized by various owners. As per the findings, self-funding bootstrapping techniques are often used by educated and non-educated prefer techniques focused on inventory. The self-funded bootstrap methods include not obtaining a salary, using a personal credit card for business purposes, doing another job for salary, and paying lower wages to relatives. A proper academic course is focused on uplifting the analytical skills related to information processing and learning abilities rather than providing directional knowledge on a specific subject. This finding was further supported by Irwin & Scott (2010) and (Grichnik *et al.*, 2014). They established that the higher the level of education higher the level of FB usage. In contrast, Schinck & Sarkar (2012) concluded that higher usage of financial bootstrapping is visible among low-educated SME owners than among educated entrepreneurs.

Journal of Information Systems Engineering and Management
2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

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Surprisingly, the outcomes of the work of Pretorius (2010) stress that "education is not a significant determinant" for the choice of financial bootstrapping techniques.
Evidence from the literature on the role of education in the use of FB has provided mixed results. Irwin and Scott (2010) and Grichnik *et al.*, (2014) support the view that education affects the use of FB, while Waleczek *et al.*, (2018) prove against it. In addition, Horvath *et al.*, (2019) found that higher education did not play a moderating role in the link between FB and performance. Neeley & Auken (2010) concluded that age, education, changes in sales, and overdraft privileges affect the choice of bootstrapping methods differently. Accordingly, we propose the following hypothesis:
H_1 = Level of education has a significant impact on the use of financial bootstrapping.

Individuals with prior business know-how seek substitutable ways to avoid traditional factor markets (Grichnik *et al.*, 2014). Grichnik *et al.*, (2014) further explain the opportunity to eliminate market-based resource transactions by implementing FB as an "alternative resource management tool." In conclusion, nascent entrepreneurs with higher levels of human capital (managerial experience and education) move towards a higher usage level of financial bootstrapping. Additionally, these businessmen are more closely linked with the "weak tie networks" for FB activities than the "strong tie networks." Specifically experienced entrepreneurs are able to foresee the financial constraints that arise and choose alternative methods to fulfill those requirements (Waleczek, Zehren & Flatten, 2018). Jayawarna *et al.*, (2020) conducted a phenomenological inquiry into the mechanisms that facilitated social entrepreneurs' resource acquisition. According to the findings, firms with effective management of external relationships were capable of successfully accessing bootstrap resources. Hence, the entrepreneurs' managerial experience affects the detection and implementation of FB within SMEs. Thus, we propose the following hypotheses:
H_2 = Higher the managerial experience higher will be the use of financial bootstrapping
Horvath (2019) found that entrepreneurship training positively moderates the effects of FB techniques. In addition, customized business training may provide specific knowledge and skills to successfully accomplish entrepreneurial activities (Grichnik *et al.*, 2014). Specifically, such training, makes participants aware of the potential avenues of acquiring financing facilities for their businesses. And, networking options created via these forums enable entrepreneurs to identify resource-sharing opportunities. Thrikawala, (2011) pointed out that, there is an influence of attending the trade fairs and seminars. Consequently, we propose the following hypothesis:
H_3 = Higher the business training higher will be the use of financial bootstrapping
Consequently, prior scholarly evidence provides a diverse set of findings and creates room for adding further value to the wisdom of FB in terms of empirical outcomes. Hence, studying the effect of HC on FB from a developing country perspective will add greater value to academia.

3. METHODOLOGY

This section explains the research design of this study. This study lies within the positivist research paradigm based on ontological and epistemological assumptions. Hence, the quantitative research method under the deductive approach was utilized. The anticipated relationships among the study variables are depicted in Figure 01. Accordingly, the independent variables were the level of education, managerial experience, and business training. The use of financial bootstrapping was the dependent variable.

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e-ISSN: 2468-4376
https://www.jisem-journal.com/

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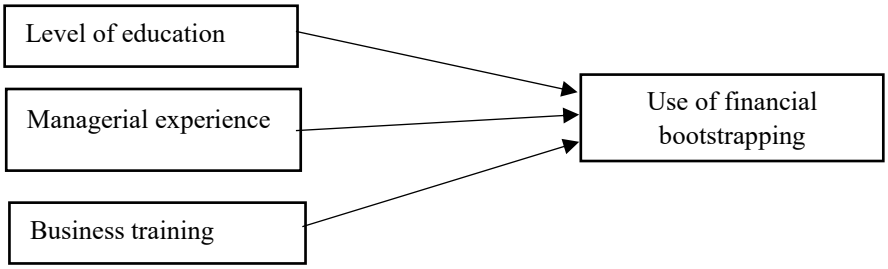

Figure 01: *Conceptual Framework*

Data analysis was performed using structural equation modeling. The statistical technique family of structural equation modeling (SEM) has gained prominence in business and social sciences (Henseler, Hubona & Ray, 2016). SEM can be divided into two categories. The first approach, covariance-based SEM (CB-SEM), is extensively used and recognized, whereas the second, partial least squares SEM (PLS-SEM, PLS path modeling), focuses on the analysis of variance (Wong, 2019). PLS-SEM should be used when the structural model is complex and involves many construct indicators and/or model relationships; when the analysis is about testing a theoretical framework from a predictive point of view; when the path model contains one or more formatively measured constructs; when distribution problems arise (e.g. lack of normality), and when the research requires latent variable assessments for follow-up analysis (Hair *et al.*, 2018).

SMEs in Sri Lanka suffer from the absence of a single and clear definition. Consequently, various institutions have introduced their own definitions to suit diverse institutional requirements. This issue has been discussed by various scholars (Rathnasiri, 2014; Mudalige, 2017). However, this has yet to be resolved. The present study adopted the definition introduced by the Department of Census and Statistics of Sri Lanka (2014) to identify SMEs engaged in trading businesses.

A cross-sectional survey was conducted to gather the required data. There are three ways to formulate the survey instrument; adopting, adapting, and developing (Azam et al., 2021). In this study the survey instrument was adapted from Winborg & Landstrom (2001), Bosma *et al.*, (2004), Hasan & Almubarak (2016), Fatoki (2011). It consisted of three (03) main sections; demographic information (age and type of the business, number of employees, province, gender, and educational qualifications of the entrepreneur), the second part focusing on the human capital components, and the third part aimed towards the use of FB. The questionnaire included 12 items (four items per dimension) for capturing the human capital of entrepreneurs and nine items to grasp the use of FB within SMEs. The survey instrument was piloted with 31 respondents and the reliability analysis of the gathered data is presented in table 01. The unit of analysis was individual and owners/ managers of SMEs were identified as respondents. A total of 500 questionnaires were distributed via email and 243 responses were received resulting in a response rate of 48.6%. Of the questionnaires received, six were removed due to extensive missing data. Moreover, eleven questionnaires were not extensively missing and were treated with mode imputation to convert them into usable ones. Accordingly, the final sample consisted of 237 responses.

Table 01: Reliability statistics (Cronbach's alpha)

	Pilot study	No. of items	Final survey
FB	0.706	9	0.832
ED	0.733	4	0.812
ME	0.722	4	0.726
TR	0.884	4	0.927
Overall	0.929	21	0.951

Next, an investigation of the outliers, normality of the data set, and existence of multicollinearity was conducted. An outlier is an excessive response to a specific query or an extreme response to all the questions (Hair *et al.*, 2017). It normally lies at a substantial distance from other responses. A small number of outliers can affect the statistical significance of an analysis in either case (Sullivan *et al.*, 2021). The physical observation

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2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

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of outliers is possible using box plot drawings. However, a more objective measurement is to compare the mean value with the 5% trimmed mean to discover the outliers influencing the data set. The mean is the average of the variables, whereas the 5% trimmed mean is a recalculated mean after truncating 2.5% of the top and 2.5% of the bottom of the data distribution (Roni & Djajadikerta, 2021). Thus, the researchers found no significant impact of outliers that could distort the data analysis process.

Parametric tests used for data analysis anticipate that the data distribution is normal. Whilst this is violated researchers have to make use of non-parametric tests for the analysis. Visible evaluation of normality is possible by inspecting the bell-shaped curve evolved on the histogram and making use of Q-Q plots. However, researchers are more relaxed with objective measures of a regular distribution in place of visual inspection (Roni & Djajadikerta, 2021). Hence, Kolmogorov-Smirnov and Shapiro-Wilk assessments were performed as goal measures to test for normality. Appendix 01 furnishes the results of the normality test. The results indicate that all items were significant at the 95% confidence level rejecting the null hypothesis of a normally distributed population. Accordingly, researchers have employed non-parametric tests for data analyses.

Next, the existence of multicollinearity was assessed (table 02). The scrutiny of collinearity helps not only to detect potential collinearity issues but also to identify any variables that require elimination, merged into one, or simply have a higher-order latent variable developed (Wong, 2019). All VIF values presented in Table 02 meet the threshold specified by Hair *et al.*, (2018) ensuring the non-existence of multicollinearity among the indicators.

Table 02: Multi-collinearity statistics

	VIF		VIF
ED 1	1.771	FB 6	1.922
ED 2	2.217	ME 2	1.584
ED 3	2.376	ME 3	1.776
ED 4	2.224	ME 4	1.528
FB 1	2.272	TR 2	3.096
FB 2	2.100	TR 3	3.054
FB 3	2.779	TR 4	1.895
FB 5	1.672		

The demographic profile of the small firms within the sample was analyzed covering six (06) demographic items. They are firm age, business type, number of employees, gender of the entrepreneur, level of education, and province in which the business is located. The outcomes of the analysis are listed in Table 03. Accordingly, 46.8% of SMEs were engaged in business activities for less than nine (09) years. In addition, 65.8% of these businesses have formed as sole proprietorships. Further, 52.3% of the businesses employed 4-9 employees, and 71.7% of the respondents were male. The maximum level of education earned by the majority (46%) was General Certificate of Education (Advanced level). Finally, 47.7% of the businesses were located in the western province followed by 24.1% in north western province.

Table 03: Demographic analysis

		Frequency	Percent (%)
Age	4-9 Years	111	46.8
	10-15 years	89	37.6
	16-21 Years	37	15.6
Type	Sole proprietorship	156	65.8
	Partnership	46	19.4
	Joint venture	8	3.4
	Private company	27	11.4
Employees	4-9	124	52.3
	10-15	56	23.6
	16-21	31	13.1
	22-27	17	7.2
	28-34	9	3.8
Gender	Male	170	71.7
	Female	67	28.3
Education	G.C.E. (O/L)	54	22.8
	G.C.E. (A/L)	109	46

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2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

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	Diploma	34	14.3
	Bachelor's degree	29	12.2
	Master's degree or above	11	4.6
Province	Western	113	47.7
	North Western	57	24.1
	Central	22	9.3
	Sabaragamuwa	21	8.9
	Southern	24	10.1
	Total	237	100

The descriptive statistics of the study are presented in Appendix 02. The outcomes indicated that the mean values for the indicators were greater than 3.00. The standard deviation ranged from a minimum value of 1.045 to a maximum value of 1.480. The descriptive statistics suggest that most of the respondents expressed agreeableness towards the statements included in the questionnaire.

The researchers employed SMART PLS for the analysis. SMART PLS is a stand-alone software specialized for PLS path models. The reflective measurement scale was identified as appropriate for the present study whereas there are two types of measurement scales: reflective and formative. Reflective models are identified when the construct affects (causes) the indicator, and the indicators themselves are highly correlated and interchangeable. In contrast, within the formative models, measured indicators cause the construct and they are not interchangeable. Thus, the present study was conducted fulfilling the requirements of reflective models. In the SMART PLS indicator consistency reliability is ensured with outer loadings (≥0.708) as prescribed by (Henseler, Ringle & Sarstedt, 2012). Indicator consistency reliability was examined in the present study. This was obtained by computing the squared values of the outer loadings. Accordingly, ME1, FB4, FB9, TR1, FB8 and FB7 were eliminated. The outer loadings of the remaining indicators are presented in Table 04.

Table 04: Outer Loadings

	ED	FB	ME	TR
ED 1	0.776			
ED 2	0.854			
ED 3	0.870			
ED 4	0.869			
FB 1		0.827		
FB 2		0.800		
FB 3		0.878		
FB 5		0.751		
FB 6		0.751		
ME 2			0.776	
ME 3			0.871	
ME 4			0.839	
TR 2				0.908
TR 3				0.923
TR 4				0.854

Internal consistency reliability and convergent validity were then tested. According to Wong (2019), Cronbach's alpha has traditionally been used to assess the internal consistency reliability in social science research. It provides an estimate of the reliability based on the inter-correlations of the observed indicator variables (Hair *et al.*, 2017). In addition to Cronbach's alpha, Joreskog's (1971) composite reliability was utilized for this purpose. Composite reliability varies from 0 to 1, with higher values indicating higher levels of reliability, and is generally interpreted in the same way as Cronbach's alpha (Hair *et al.*, 2017). Convergent validity expresses the extent to which a construct converges to explain the variance in its items (Hair *et al.*, 2018). Scholars have used two measures to establish the convergent validity. These are the average variance extracted (AVE) and outer loadings. Since the outer loadings were already assessed in the present study, AVE was used to further ensure convergent validity. The outcomes of the assessment of the construct reliability and validity are shown in Table 05. The Cronbach's alpha and composite reliability values of all the constructs were well above the threshold of 0.70, and AVE values also satisfied the requirement (AVE > 0.5). According to Hair *et al.,* (2018),

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2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

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an acceptable AVE is 0.50 or higher, which means that the construct explains at least 50% of the variance in its elements.

Table 05: Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
ED	0.864	0.873	0.907	0.711
FB	0.861	0.865	0.900	0.644
ME	0.777	0.800	0.869	0.689
TR	0.877	0.888	0.924	0.802

Next discriminant validity was assessed using the heterotrait – monotrait ratio (HTMT). According to Henseler *et al.*, (2015), the threshold is 0.90. Discriminant validity was established, as shown in the figures in Table 06.

Table 06: Discriminant validity

	ED	FB	ME	TR
ED	0.843			
FB	0.846	0.803		
ME	0.653	0.828	0.830	
TR	0.450	0.506	0.525	0.896

The measurement model after validating all the requirements pertaining to construct reliability, validity, convergent validity, and discriminant validity is illustrated in Figure 02.

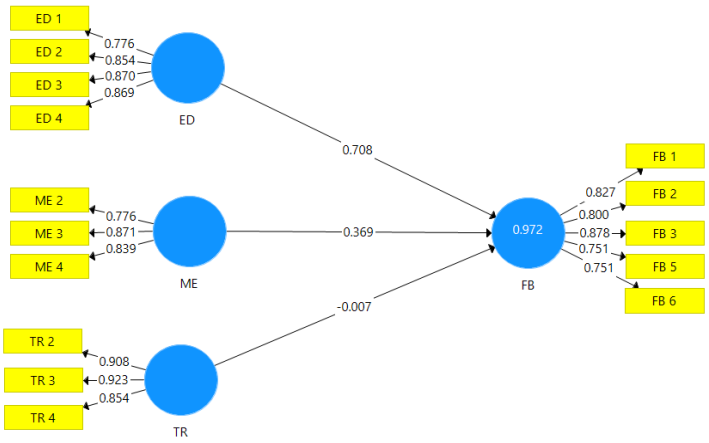

Figure 02: *Measurement Model*

If the evaluation of the measurement model is satisfactory, the next phase in the evaluation of PLS-SEM results is the evaluation of the structural model (Hair *et al.*, 2018). The structural model assessment includes several phases: examining the size and significance of path coefficients, Analyzing R^2 of endogenous variables, f^2 effect size, and predictive relevance (Q^2) (Hair, Howard & Nitzl, 2020).

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e-ISSN: 2468-4376
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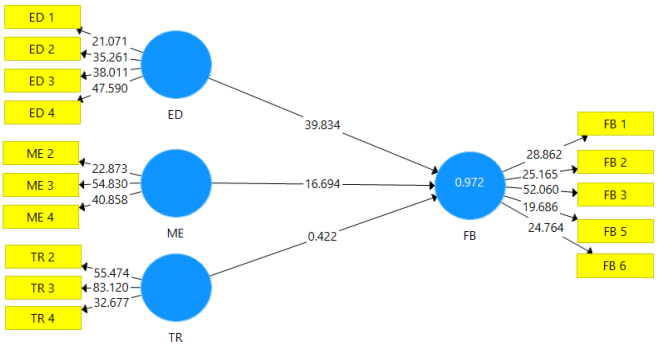

Figure 03: *Structural Model*

In PLS-SEM, the structural model is not assessed for goodness of fit but is primarily based on heuristic criteria determined by the model's predictive capabilities (Hair *et al.*, 2017). Therefore, the key criteria for evaluating the structural model in PLS-SEM are the significance of the path coefficients, the magnitude of the R^2 values, f^2 effect size, and predictive relevance Q^2.

R^2 captures the variance of the endogenous variables explained by the exogenous variables. Cohen (1988) reported R^2 values of 0.26 (substantial), 0.13(moderate), and 0.02 (weak). By contrast, Hair *et al.*, (2011), Hair *et al.*, (2013), and Hair *et al.*, (2018) recommended R^2 values of 0.25, 0.50, and 0.75 as weak, moderate, and high, respectively. The findings of the present study revealed that 97.2% (table 07) of the variation in the use of financial bootstrapping is explained by the level of education, managerial experience, and business training of SME entrepreneurs in Sri Lanka

Table VII: R squared

	R^2	P Value
FB	0.972	0.0000

Next, the path coefficients were evaluated. The path coefficients have standardized values ranging from -1 to +1, where the figures close to +1(-1) indicate a strong positive (negative) relationship. Further, the coefficients close to 0 specify a weak relationship (Hair *et al.*, 2017). The statistical significance of the path coefficients was established utilizing t statistics (> 1.96) and P values (<0.05). Furthermore, they can be interpreted as standardized beta coefficients of ordinary least squares regressions (Hair *et al.,* 2011). Thus, the path coefficients can be interpreted relative to one another, where a larger figure has a greater impact on the endogenous variable (Hair *et al.*, 2017). This study investigated the impact of the level of education, managerial experience, and business training on the use of FB. The results revealed that education and managerial experience significantly and positively affected the use of FB (99% confidence level). By contrast, business training has a negative and insignificant impact.

Table VIII: Significance of path coefficients

	Path coefficients	P Values	Decision
ED -> FB	0.708	0.000	Supported
ME -> FB	0.369	0.000	Supported
TR -> FB	-0.007	0.673	Not supported

A diverse set of factors affects the determination of a variable in a structural model. Therefore, removing such an exogenous variable is difficult and may affect the dependent variable. f^2 provides an estimate of the change in R^2 when a specified exogenous construct is omitted from the model (Hair *et al.*, 2017). As specified by Cohen (1988), f^2 values of 0.02, 0.15, and 0.35 respectively represent small, medium, and large effects respectively. As per the results obtained (table 09), ED (f^2=9.871) and ME (f^2=2.433) had large effects on R^2. Thus, the removal of ED and ME will have a significant effect on the R^2 of the research model. However, TR did not considerably affect the determination of R^2.

Journal of Information Systems Engineering and Management
2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

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Table 09: f^2 statistics

	f2	P Values
ED -> FB	9.871	0.000
ME -> FB	2.433	0.000
TR -> FB	0.001	0.917

Predictive relevance is another criterion tested in the inner model (Wong, 2019). Stone-Geisser's Q^2 value (Geisser, 1974; Stone, 1974) is utilized in empirical studies to establish the model's out-of-sample predictive power. If a model has predictive relevance, it suggests that the model accurately predicts the data that have not been used in the estimation.

Table 10: Q^2 Statistic

	SSO	SSE	Q^2 (=1-SSE/SSO)
ED	948	948	
FB	1185	451.266	0.619
ME	711	711	
TR	711	711	

Thus, the Q^2 values >0 for a specific reflective endogenous latent variable indicate predictive relevance (Hair *et al.,* 2017). According to the generated output (Table 10), Q^2 was 0.619. Since the Q^2 value is >0 the requirement of predictive relevance has been well established by the research model

4. CONCLUSION

This study examined the impact of education, managerial experience, and business training on the use of financial bootstrapping by small and medium-scale entrepreneurs in Sri Lanka. A self-administered cross-sectional survey was conducted to data. The gathered data were analyzed using partial least squares structural equation modelling.

The results revealed a significant impact of education and managerial experience on the use of financial bootstrapping. Nevertheless, business training has exhibited an insignificant impact on the use of bootstrapping practices. This finding contradicts prior scholarly work, since there is an established view that business training enhances awareness of financial bootstrapping practices, and networks developed based on such training sessions have the potential to engage in numerous types of FB practices. However, the nature of the training sessions organized within a developing-country context might be the reason for this insignificant impact. Thus, this finding would be an eye-opener for policymakers to redesign business training programmes to deliver more productive outcomes, especially for scrutinizing alternative financial strategies for SME owners.

Further, future researchers should investigate the moderating effects of the gender and age of entrepreneurs on the relationship between human capital components and the use of financial bootstrapping. In addition, the mediating role of the FB strategies on the impact of human capital components on SME performance is worthy to explore. Furthermore, more empirical evidence addressing developing countries' perspectives would undoubtedly add value to the existing knowledge base.

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