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Empirical investigations on Business Success of Small and Medium Scale enterprises in Sri Lanka

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Abstract: The purpose of this paper was to investigate the business success of Small and Medium Enterprises (SMEs) and set a light on various factors with the intention to eliminate the fear over investing on SMEs ventures in the Eastern province of Sri Lanka. Data for this study was collected using a self-administered questionnaire from a representative sample of 100 entrepreneurs from each of three districts in the province. The collected data was analyzed using SPSS 16 version and the interpretation was made using several data analysis techniques. The impact of education, experience on the success of these businesses was investigated. Findings showed clear evidence that experience had a positive effect on the success of the business. Thus, the most SMEs relied heavily on prior knowledge and experience of the entrepreneurs.

Keywords: Small and Medium Scale enterprises (SMEs), Education, Experience, Business success, Eastern Province

Introduction

Small and medium enterprises (SMEs) have been identified as vital strategic sector for promoting growth and social development of Sri Lanka. Over the years, SMEs have gained wide recognition as a major source of employment, income generation, poverty alleviation and regional development. The SMEs cover broad areas of economic activity such as agriculture, mining, manufacturing, construction and service sector industries. Although SMEs encompass agriculture, manufacturing and service sector establishments, reliable data are available only for the manufacturing sector. Within the manufacturing sector, small and medium scale enterprise account for about 96 per cent of industrial units, 36 per cent of industrial employment and 20 per cent of value added. However, the total contribution of SMEs to the national economy cannot be estimated due to paucity of information.

Many factors both internal and external have been found to impact on SME's success including education, training and prior experience and various sub categories within these areas(Mike Simpson-2004). This research focuses on the issues critical to the entrepreneurs such as experience, education. Harada (2002) suggested that there was evidence an entrepreneur's previous experience in the industry, previous knowledge of the market and related business experience all have a positive effect on business success of entrepreneurs. Aldrich and Martinez (2001) posit that the prior knowledge of the business could be obtained either through training, experience or formal education. Research conducted by Cunningham showed that success is closely connected with behavioral attributes, education level (Bowen & Robert in Staw, 1991; as well as experience (Duchesneau et al. in Staw, 1991; Hasweel et al., Wood in Zimmerer& Scarborough, 1998).

The purpose of this studywas to determine factors affecting business success of small and medium scale enterprises, using variables selected from the literature. There are two variables: experience and education.

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Literature Review

Defining SMEs in Sri Lanka

There are several definitions for SMEs adopted by various institutions in Sri Lanka and this has led to confusion in identifying SMEs for various supportive measures. In other developing as well as developed countries where there are strong SME sectors have very clear definitions for SMEs. So, it is imperative to have a clear definition for SMEs in the attempt of developing the sector for various purposes.

The researcher has presumed number criteria for defining the small and medium scale industry in this research. Accordingly industry with fewer than 50 employees was considered as a small and medium scale industry.

Business Success of SMEs

Previous research into the relationships between various factors and small and medium business success has been lacking a comprehensive theoretical framework, and many small and medium business owners are aiming to discover various factors as most closely linked to small and medium business success (Gadenne, 1998).

In this study, business success is examined from three perspectives, namely growth and sustainability, financial, and internal business process which are strongly driven by the theoretical frame work. Growth and sustainability is measured by competitive advantage: O'Gorman (2001) found that growth depended on two major managerial choices: where to compete and how to compete, the combination of which enabled sustained growth core-competency (Porter, 1985; Fiol, 2001), the financial aspect is measured by increases in company assets, and the internal business process is measured by increase of production volumes, improvement of physical working condition, and business expansion.

Experience and business success

Individuals with previous management experience are generally found to own more successful firms, although the relationship was insignificant in two of the studies shown. The results are more mixed for entrepreneur with previous industry experience (prior work experience in firms which provide the same products or services as does the current firm).

Harada (2002) suggested that there was evidence an entrepreneur's previous experience in the industry, previous knowledge of the market and related business experience all have a positive effect on success. Staw (1991) asserts that experience is the best predictor of business success, especially when the new business is related to earlier business experiences. Entrepreneurs with vast experiences in managing business are more capable of finding ways to open new business compared to employees with different career pathways.

The importance of experience for small-scale business success is also underscored by other experts. Van de Ven, Hudson, and Schroeder (1984) found a significant, negative relationship between prior small and medium business experience and firm growth. Haswell et al. (in Zimmerer& Scar-borough, 1998) note that prominent reasons behind business failures are managerial and experiential incapability. Thus, to develop a fuller understanding of the impact of experience on business success, the researcher hypothesizes and empirically tests the proposition that experience can significantly influence business success. So the following hypothesis is developed.

H1: There is a positive relationship between perceived experience of the entrepreneur and business success of SMEs

Education and business success

There are numerous studies on various links between entrepreneurship, education and the success of entrepreneurs (Chandler and Hanks, 1994; Evans and Leighton, 1990; Holtz-Eakin et al., 2000; Mosakowski, 1993). A study conducted by Kim (in Meng& Liang, 1996) involving entrepreneurs in Singapore disclosed that successful entrepreneurs have higher education levels compared to that of unsuccessful entrepreneurs ($p = 0.01$). Seventy percent of successful entrepreneurs are university graduated, while 23% are not.

In general, higher education level of entrepreneur should improve the growth opportunities of their firms. It is possible; however that higher education does not necessarily increase the rate of survival and success of the small and medium scale business. Thus to investigate the contribution of level of education

with the business success, the researcher developed the hypothesize as under;

H2: There is a positive relationship between perceived level of education of the entrepreneur and business success of SMEs

Research question

What are the factors identified by the small and medium business entrepreneurs to be most critical to the success of their business in Sri Lanka?

The following questions are specifically identified based on the literature review for investigation;

Q1-Does experience has positive effect on business success of SMEs in Sri Lanka?

Q2- Does education has positive effect on business success of SMEs in Sri Lanka?

Q3- Which of these constructs will have more significant effects on business success of SMEs in Sri Lanka?
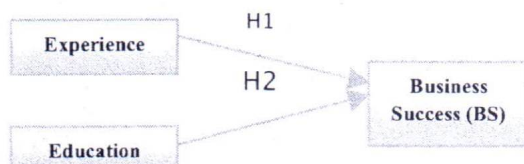
Research Objectives

The following objectives are set out to achieve through this research.

- To identify the factors affecting the business success of SMEs.

- To explore the effect of experience on business success of SMEs

- To assess the effect of education on business success of SMEs

Methodology

Research model

Research Design

The followings are the research design set to carry out this research work successfully.

Population and samples

The target population comprised of Small and Medium Scale enterprises located in the Eastern province which includes three districts namelyTrincomallee, Batticaloa, and Ampara. There are a large number of small industrial units in these districts based mainly on agriculture, fisheries, livestock, and tourism sectors. In the each district around 100 entrepreneurs from SMEs were selected as representative samples for this research.

Questionnaire

Having identified the variables, and operationally defined them the researcher chosen a Self-administered questionnaire for the collection of data. Further the five point Likert scale ranging from "strongly agree" to "strongly disagree" was used.

Validation of Measurement Reliability

The researcher opt internal reliability measure to measure the inter-item consistency of set of questions in the instrument. The Cronbach's Coefficient Alpha is used to test the degree of inter– item consistency of the instrument and how well it positively correlated to one another. Closer the Cronbach's alpha is to 1 the higher the internal consistency reliability (ibid: 307).The Cronbach's alpha of the independent variable: experience was 0.749, Education was 0.391, and the dependent variable of Business Success was 0.739. In overall Cronbach's alpha for all the variables in the instrument was 0.871 suggesting that the instrument's internal consistency reliability was higher and satisfactory.

Data Analysis

Data were analyzed by using a statistical software namely SPSS 16. Factor analysis was considered to validate the instrument. Hence to reduce the data, a confirmatory factor analysis was used with Principal Component Analysis (PCA). Further the reliability and validity test carried out to ensure the relevance of the instrument with the research problem.

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The simple regression analysis was carried out to see the relationship of each independent variable separately. In addition multifactor regression analysis also was done since it's involve more than one independent variable and cross correlation to measure the internal relationships of variables.

Data Presentation and Analysis
Factor analysis

A confirmatory factor analysis was done on the items of Experience and Education. The factor analysis was done using Principal Component Analysis (PCA) method with *Varimax* Rotation as an extraction method and Eigenvalues was set at 1. The data set for the business success constructs was appropriate for conducting factor analysis, because it satisfied overall measure of inter correlation that include number of correlation exceeding 0.30. The bartlett's test of sphericity was statistically significant. The overall Kaiser–Meyer–Olkin(KMO) was 0.837, which is considered as appropriate for the factor analysis (Saffu, 2007).

Table: 1 shows the factor loading for the analysis:

Table: 1 Factor Loading

Variables	Experience	Education	Business success
Awareness	.735		
Relevant skills	.958		
Startup procedure	.724		
Tenure of service	.772		
Tenure of business existence	.876		
Learning attitude		.745	
Application of knowledge		.746	
School education		.626	
University education		.982	
Professional qualification		.734	
Increasing production volume			.745
Favorable business environment			.746
Business expansion			.626

Correlation Analysis Bivariate Pearson correlation

The correlation analysis results indicated that the independent variables, EXP, EDU are positively correlated with BS (p <0.05). Correlations of all variables with business success as under;

Table 2: Correlation matrix between independents variable and dependent variables

Independent Variable	BS	
	Correlation Value(r)	Test of Significance (p)
EXP	0.420	0.0000
EDU	0.304	0.0000

Table 2 shows the correlation between the dependent and independent variables, Experience (r = 0.420) and Education (r = 0.304).

Table 3: Correlation matrix between dependent variable and indicators of independent variable

Independent variable	Indicators	BS	
		Correlation Value(r)	Test of significance (p)
EXP	Awareness	.258**	.000
	Relevant skills	.297**	.000
		.186**	.001
	Startup procedure	.294**	.000
		.391**	.000
	Tenure of service		
EDU		.192**	.001
	Tenure of business existence	.238**	.000
		.264**	.000
		-.171**	.003
		-.162**	.005
	Learning attitude		
	Application of knowledge		
	School education		
	University education		
	Professional qualification		

Correlation is significant at the 0.01 level (2-tailed),
Source: Survey data

Table 4: Correlation matrixes between dimension of dependent variable and independent variable

independent variables	Dimension of Dependent Variable					
	D1	Sig	D2	Sig	D3	Sig
EXP	.415**	.000	.140*	.015	.017	.767
EDU	.294**	.000	.135*	.020	.014	.809

**. Correlation is significant at the 0.01 level (2-tailed).(DV-Dependent variable; business success, D1-Dimension 1; sustainability and competitiveness, D2-Dimension 2, Financial aspect, D3 – Dimension 3; internal business process),

Source: Survey data

The above table shows that how the independents variables related with the dimension of business. Among three dimensions such as sustainability and competitiveness, financial aspects and internal business process, the Experience has higher correlation with sustainability and competitiveness(r = 0.415) of the SMEs,Education also has high correlation with sustainability and competitiveness(r = 0.294).

Regression Analysis

Reduced factors were used to analyze the factors for the Business Success of SME's. The dependent variable was formed by summing up the measures of indicators. The regression analysis was conducted to reveal how different factors affect the business success. First the single regression analysis was done separately for each independent variable with reduced data through factor analysis to see the fitness.Several independent variables may include the information we thrive to predict. In such a case, it may be worthwhile to formulate a model that allows us to consider the relation of our variable of interest with a set of independent variable. Since several independents variables are included in a regression equation, the model is called a Multiple Regression Model. In this analysis, further test is important for determining which variables are essential. The F test tells us whether a relationship exists between Y and at test on of the Xi and k ensuring t tests tell us which of the variables are important and should be included in the regression equation.

Linear Regression – Enter method

The R^2 in the table explains the fit for the overall model. The coefficient R^2 is an extension to the multiple regression of the coefficient of determination r^2 in simple linear regression. This coefficient is a measure of how well the regression equation fits the data. Here, the R^2 is O.517 (52 percent), shows that regression equation has fit with the data. It could be predicted that 52% of the variance in dependent variable (Business Success) has been significantly explained by the two independent variables (Experience and Education). Here, P = 0.0001 < 0.05 and ANOVA table shows the F value of 79.040 is significant at the 0.0001 level. So the model is significant and exists.When the individual variables are focused Experience p =0.0001 <0.05, hence it is significant to the model, Education p =0.0001 < 0.05, hence it is significant to the model, with F value = 180.

Table 5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719ª	.517	.511	.7862729

a. Predictors: (Constant), EP, EDU,Source: Survey data

Table 6: Analysis of variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	195.457	4	48.864	79.040	.000ª
	Residual	182.376	295	.618		
	Total	377.834	299			

Source: Survey data

Coefficient of the variables

The coefficient table indicates the important independent variables among two that influence most of the variance in BS. The coefficient of Experience shows the beta value 0.104 so it has necessity to improve business success. The coefficient of Education shows the minimal beta value 0.050. This also indicates that the variable predict the business success to some extent.

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Table 7: Coefficients with variables

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.028	.430		7.042	.000
.	EXP	.123	.060	.104	2.056	.041
	EDU	.106	.101	.050	1.047	.096

a. Dependent Variable: BS, Source: Survey data

Table 8: Hypothesis testing

Variables	Hypothesis (Null + Alternative)	P-Value	α = 5%	H₀	Hₐ
EXP	H1₀,H1ₐ	0.041	0.05	Rejected	Accepted
EDU	H2₀, H2ₐ	0.096	0.05	Accepted	Rejected

Source: Survey data

Thus, the following model fit regression equation is derived;

$$Y = 3.028 + 0.123\ X1 + 0.106\ X2$$

Y = Business Success
X1 = Experience
X2 = Education

Hypothesis Testing

Following the analysis of the data, hypotheses were tested to make sure the assertion in the light of the data analyzed. The two hypotheses were tested and explain one by one. The most common policy in statistical hypotheses testing is to establish a significant level, denoted by α, and reject H_0 when the p – value falls below it. When this policy is followed, one can be sure that the maximum probability of the type I error is α (policy: when p value is less than α, reject H_0).Here, the hypotheses were tested at 5% confidence level (α = 0.05). P values are denoted 'Sig' in the Table 7 above.

Given the null hypothesis and sample evidence with sample size n , the p- value is the probability of getting a sample evidence with the same n that is equally or more unfavorable to the null hypothesis while the null hypothesis is actually true. The p- value is calculated giving the null hypothesis the maximum benefit of the doubt. The following table shows the rejection and acceptance of hypothesis

Experience

The first hypothesis in the model is between perceived experience and Business Success. The hypothesis is as under;

H1ₐ: There is a positive relationship between perceived experience of the entrepreneur and business success of SMEs

H1₀: There is no relationship between perceived experience of the entrepreneur and business success of SMEs

Based on the above rule in accepting or rejecting the null hypothesis, as the p value for variable Experience is 0.041 which is less than 0.05, the null hypothesis is rejected and thereby alternative hypothesis is accepted (Table 8). This means that perceive experience of the entrepreneur has much impact on determining the business success of SMEs.

Education

The second hypothesis is developed as stated below:

H2ₐ: There is a positive relationship between perceived level of education of the entrepreneur and business success of SMEs

H2₀: There is no relationship between perceived level of education of the entrepreneur and business success of SMEs

Here the null hypothesis is accepted since the p value is greater than α value (table 8) this means that the perceived education regarding the entrepreneurships has less impact upon the business success of SMEs. So it is obvious that to become

successful entrepreneurs it is not necessarily essential to have either degree or professional qualifications. Table 9 shows that 50% entrepreneurs have A/L qualification, 22% O/L qualifications and 28% of entrepreneurs have 6-10 grades in school education.

The table 10 shows that only 4 % entrepreneurs have the degree whereas 96 % of Entrepreneurs have no degree; out of 300 entrepreneurs were surveyed. Table 11 shows that only 9% entrepreneurs have certificate level or diploma level qualification in any stream.

Table 9: School Education

		Freque ncy	Perce nt	Valid Percent	Cumulativ e Percent
Vali d	6-10	84	28.0	28.0	28.0
	OL	66	22.0	22.0	50.0
	AL	150	50.0	50.0	100.0
	Tot al	300	100.0	100.0	

Source: Survey data

Table 10: University Education

		Freque ncy	Percen t	Valid Percent	Cumulativ e Percent
Vali d	No	288	96.0	96.0	96.0
	Yes	12	4.0	4.0	100.0
	Tot al	300	100.0	100.0	

Source: Survey data

Table 11: Certificate or Diploma Qualification

		Freque ncy	Perce nt	Valid Percent	Cumulativ e Percent
Vali d	No	273	91.0	91.0	91.0
	Yes	27	9.0	9.0	100.0
	Tot al	300	100.0	100.0	

Source: Survey data

Conclusion and Recommendations

The important contribution of the SMEs to the growth and development of a country had been extensively addressed in the Literature review. This research is aimed to measure the business success of

such industries. This was achieved by addressing the broader questions relating to the factors affecting the business success of SMEs.

Research question was: *what are the factors identified by the small and medium business entrepreneurs to be most critical to the success of their business in Sri Lanka*. This research focused on some independent variable such as Experience, Education among these except Education the other variable were highly impact upon the business success. This means the variables like Experience has significant high involvement in success.

Research Objectives

The major objective of this study was to investigate the factors influencing on the business success of the SMEs. This was reached diligently by the researcher through various analysis and techniques opted in this study. The other objectives were also well thought out and achieved through this study. These achievements of objectives are explained below;

The investigation of business success of SMEs in the Eastern province of Sri Lanka is discussed with its two main types of construct such as Experience and Education.

Experience and Business success of SMEs

The hypothesis (H_1) related to this variable has proved that there is a statistically significance positive relationship with business success (r = 0.420, p=0.0001), and the coefficient of Experience showed the Beta value 0.104 so it has variance in explaining or predicting the business success. It is means that the level of experience is so much important factor reflecting the SMEs success. The construct EXP measured with five dimensions (D1-Awareness, D2 - Relevant skills, D3- Startup procedure, D4- Tenure of service, D5- Tenure of business existence), all indicators in each dimensions were positive and significant. It was found that each dimensions correlate with dependent variable; Business success of SMEs. (D1 –r = .258**, p =0.000, D2- .297**, p = .000, D3- .186**, p = .001, D4 - .294**, p = 0.000, D5- .391**, p = 0.000). Among these D5- Tenure of business existence and D2-Relevant skills are highly constitute

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with the main variable Experience for determine the business success.

The researcher also seen the correlation between the main construct EXP and the dimensions of dependent variable D1-Growth and sustainability, D2-Financial aspects, D3- Internal business process. Out of three dimension of dependent variable, EXP was highly correlated with D1-growth and sustainability (creating core competency and competitiveness) ($r = 0.415$, $p = 0.000$), and also correlate with other dimension as well. See Table 4. The EXP showed the correlation with the D2 – Financial aspects too, which also proved by the previous studies that individuals who finance new ventures weigh the owners' experience significantly when making financing decisions (Goslin and Barge 1986).The direct relationship between experience and business success had found mixed results. Reuber, Dyke, and Fischer (1990) argue that such mixed findings may be due to the fact that various kinds of experience are relevant to entrepreneurship, and that the relevance of a specific kind of experience may vary in different contexts. This study found that the direct relation between Experience and business success exist to certain level.

Education and Business success

Education showed insignificant relationship with business success ($p=0.096 > 0.05$), and the coefficient of Education showed the minimal Beta value 0.050 so it has also less variance in explaining or predicting the business success. It is means that when the level of education increasing it is not necessarily important for increasing SMEs success according to the sample and location chosen.The construct EDU is measured with five dimensions (D1- Learning attitude, D2 - Application of knowledge, D3- School education, D4- University education, and D5- Professional qualification); all indicators in except dimensions, D4, D5 were positive and significant.

The correlation between the main construct EDU and the dimensions of dependent variable D1- Growth and sustainability, D2- Financial aspects, D3- Internal business process showed that Out of three dimension of dependent variable, EDU was highly correlated with D1-growth and sustainability (creating core competency and competitiveness) ($r = 0.294$, $p =$

0.000), and also less correlate with other dimension as well. See table 4.

A study conducted in Singapore disclosed that successful entrepreneurs have higher education levels compared to that of unsuccessful entrepreneurs Kim (in Meng& Liang, 1996). Seventy percent of successful entrepreneurs are university graduated, while 23% are not. But here only 4% of entrepreneurs are graduates and 9% of entrepreneurs had professional qualifications.

In conclusion, the Tenure of business existence and Relevant skills in the level Experience, Learning attitude, Application of knowledge, and School education in the in the level of Education, are recommended for improving the business success of SMEs. Among them the experience of the entrepreneurs for SMEs success in the Eastern Province of Sri Lanka should be given high consideration as it is showed higher correlation with Business success of SME's.

Two hypotheses were proposed to investigate the influence of business success, and results of hypotheses test were proved to accept one hypothesis and reject one. Accordingly, experience had a positive effect on the success of the business. This result provided valuable insights for understanding the business success.

References

Aldrich, H. E., & M. A.Martinez. (2001), many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship. EntrepreneurshipTheory and Practice, 25(4), 41-56.

Chandler, G. and S.H. Hanks (1994). Market Attractiveness, Resource-Based Capabilities, Venture Strategies and Venture Performance. Journal of Business Venturing, 9, 331-349.

Cunningham, F. (1998), "How to avoid going bust", Management Today, August, pp. 70-

Evans, D.S. and L.S. Leighton (1990). Small business Formation by Unemployed and Employed Workers. Small Business Economics, 2 (4), 319-330.

Gadenne, D. (1998), "Critical success factors for small business: an inter-industry comparison", International Small Business Journal, Vol. 17 No. 1, pp. 36-55. Glaser, B.G.

Harada, N. (2002), "Who succeeds as an entrepreneur? An analysis of the post-entry performance of new firms in Japan", Japan and the World Economy, Vol. 441, pp. 1-13.

Mike Simpson and Jo Padmore, Nick Taylor, and Jane Frecknall-Hughes (2006), "Marketing in Small and Medium sized enterprises", International Journal of entrepreneurial Behavior & Research, vol-12 No-01, PP 361-387.

Mike Simpson, Nicki Tuck and Sarah Bellamy (2004), "Small business success factors: the role of education and training", Emerald Group Publishing Limited, vol-46 8/9, PP 481-491.

O'Gorman, C. (2001), "The sustainability of growth in small and medium-sized enterprises", International Journal of Entrepreneurial Behaviour&Research, Vol. 7 No. 2, pp. 60-75.

Porter, M.E. (1985), Competitive Advantage: Creating and Sustaining Superior Performance, Free Press, New York, NY.

Saffu,K. and Walker, J.H., Hinson, R. (2007), "An empirical study of perceived strategic value and adoption constructs: the Ghanaian case, Management decision, vol.45 no 7, pp.1083-1747

SekaranUma (2003), Research Methods for Management: A skill building Approach, 4thed, John Wiley &Sonc, Inc.