

Dimensions of Entrepreneurial Self-Efficacy and Firm Performance

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Abstract

Creating a highly performing Small and Medium Enterprise (SME) sector is the central focus of many developing countries, but contrary to the expectations, most of SMEs in South Asia face many constraints such as policy inertia, misplaced government priorities, lack of infrastructure facilities, inappropriate technology, and lack of information and lags clearly behind their western counterparts. This situation in volatile environmental conditions has mounted much pressure on the key human agency of the entities and bottlenecked the flow of contribution to the economies. In the face of such constraints, efficacious and resilient entrepreneurs are more likely to ensure their survival amid tremendous rate of failures communal to these countries. It is therefore crucial to understand how more efficacious SME entrepreneurs perform in their operations. This paper investigates the effect of the dimensions of entrepreneurial self-efficacy on the performance of SME entrepreneurs. The study in a sample of 350 small scale hotel and restaurants in Sri Lankan SME sector proved good fit of the proposed structural equation model to the observed data confirming that more efficacious entrepreneurs are highly performing and bouncing back in constrained environments.

Index terms— self-efficacy, SME entrepreneurs, performance

1 Introduction

It is almost axiomatic that small and medium enterprises (SMEs) are central to the development of any country and their contribution for the independence of the economy is inevitable. Strong SME sector highly facilitates the upward mobility of any economy by absorbing unemployment and promoting innovations (Gray, 2006; Bovee, Thill, & Mascon, 2007; Griffin & Ebert, 2006). Their role is vital for the developing economies due to major contribution to GDP compared to large-scale firms. In most of the Asian countries, more than seventy-five percent of gross domestic products are produced by this sector. In addition, velocity of transformation from under developing stage to development stage is accelerated by a highly performing SME sector. However, this sector in many of the developing countries faces many constraints such as low level of technology, lack of management and entrepreneurial skills, unavailability of timely market information, poor product and service quality (Asian Productivity Organization, 2011). Due to these constraints, only 20 percent of the SMEs survive within eight years ??Lanka News Papers, 2013). This survival rate is relatively lower compared to western counterparts. In European countries more than 50 percent of the businesses survive after five years (European Union, 2012). Entrepreneurs' role is decisive for the survival and growth of SMEs since they are driving force behind the entities. In the volatile environments of developing countries characterized with many constraints, their role has become more important. These entrepreneurs should have the ability to bounce back in the face of sudden shocks springing from unpredictable political, economic and legal situations. Within this background, it is essential to explore whether there are specific characteristics that make the entrepreneurs more resilient in such environments.

42 2 II.

43 3 The Sri Lankan Context

44 Sri Lankan economy is mainly based on its SME sector which covers a wide range of business areas including
45 manufacturing, agriculture, construction, tourism, fisheries, mining and other services (Department of Census
46 and Statistics Sri Lanka, 2010). This sector has been identified as an important strategic sector for economic
47 and social development of the country since it covers a wide area of economic activities, and for many years,
48 it has gained a higher level of recognition for the contribution in income and employment generation, poverty
49 alleviation and regional development. Since 1948 successive governments had introduced various policy reforms
50 and provided many incentives to the entrepreneurs with the purpose of increasing the contribution of the sector
51 to the national economy. But irrespectively even today there remains number of constraints faced by the sector.
52 Though there are few policy reforms in recent past, still the policy inertia has slowed down the development
53 of the sector. There usage of appropriate technology to reduce the operational efficiency is one of the major
54 managerial constraints in the sector. Lack of market information and marketing skills is another important
55 obstacle identified while lack of infrastructure facilities has impeded the success of this sector. Electricity, water,
56 telephone facilities, rode access are not adequately supplied to the SMEs especially out of the urban areas while
57 the cost of acquiring them remains very high. Regulatory role of the government such as lengthy and complex
58 procedures and documentations, outdated rules and regulations are also considered as a heavy constraint for the
59 development of the SME sector (Task Force for SME Sector Development Programme, 2002; Dassanayake, 2011).

60 Sri Lanka SME sector is more labour intensive than capital intensive (Task Force for SME Sector Development
61 Programme, 2002) and most of them are owner-managed entities or run by family individuals (Dassanayake,
62 2011; Priyanath, 2006) such that the role of the entrepreneurs is more crucial for the success of their organizations.
63 Considering the importance of the sector to the country's development, Sri Lankan government has been making
64 various policy reforms, offering incentives with the assistance of many local and foreign donor agencies. But
65 growth, performance and expansion of the sector remain stagnant compared to large-scale enterprises and their
66 development is constrained by number of factors reducing the potential contribution to national economy. Task
67 Force for SME Sector Development Programme, (2002) has identified policy inertia, financial instability, and
68 absence of technical managerial and entrepreneurial skills, in appropriate technology, unavailability of market
69 information, lack of infrastructure facilities and regulatory role of the government as major constraints faced by
70 the Sri Lankan SME sector. These SMEs also face problems such as unnecessary delays in processes, financial
71 bottle-necks, and low standards of products making the role of the entrepreneurs more critical for the survival
72 and the expansion of the entities. Without efficacious entrepreneurs who are resilient and courageous, bouncing
73 back in problematic situations may be difficult.

74 In many studies, it has been emphasized that being efficacious is important for the entrepreneurs when
75 they faced many constraints (Li, 2008; Luthans & Ibrayeva, 2006). However, the level of self-efficacy of SME
76 entrepreneurs in the Sri Lankan context has not been explored previously and yet to be unearthed. Understanding
77 of the existence of such concept will pave the way for opening many research avenues for future researchers to
78 foster the entrepreneurship studies in developing countries. Therefore this study will explore the existence of
79 entrepreneurial self efficacy among entrepreneurs of Sri Lankan SME sector.

80 4 III.

81 5 Literature Review

82 Social Cognitive Theory defines self-efficacy as individuals' judgement of their abilities to execute some courses of
83 action that required attaining an outcome. It is the perception of one's ability to convert into expected outcome
84 or the judgement on capabilities to organize and execute a particular course of action. The theory emphasized
85 the concept as the most important among cognitive factors that affect human functioning. The concept self-
86 efficacy plays a central role in human agency. When people do not believe that their actions will not create
87 desired results, they may have little motivation to involve in the task or preserve in difficulties. Their actions are
88 based more on what people believe than what is exactly exists (Bandura 1986). Social cognitive theory has also
89 strongly proven selfefficacy as a determinant of individual performance (Bandura, 1986). People with enhanced
90 perceived selfefficacy successfully execute tasks therefore higher the degree of self-efficacy the higher the individual
91 performance, and it also predicts future behavior better than past performance (Schunk, 1984). Bandura (1989)
92 emphasized that people's belief of efficacy determine how much effort they will exert in a task. Phillips and
93 Gully (1997), in an experiment conducted on under graduate students, found positive direct relationship between
94 self-efficacy and individual performances. They also found that self-efficacy affects performance through goal
95 setting. Results indicated that self-efficacy ability and self set goals together explain 30 percent of the variance
96 in performance.

97 Stajkovic and Luthans (1998) conducted a meta-analysis to determine the magnitude of the relationship of
98 working performance to self-efficacy. The relationship was proven positive and strong. According to the findings
99 of the study, self-efficacy contributed to 28 percent of performance improvement. Argument against this meta-
100 analytic study was that the study had considered only cross sectional designs and lower level of confident level
101 (Vancouver et al., 2001). In an experiment of a sample of business school students, Seijts et al. (??004) found

102 positive direct effect of selfefficacy on individual performance, while a study by Acharya et al. (2007) found
103 significantly higher correlation between self-efficacy and sales performance of rural kiosk operators in India. Ozer
104 and Bandura (1990) concluded that people with stronger self efficacy have higher control over their negative
105 thinking, and Olusola (2011) concurred that productivity of employees in industrial settings is mainly affected
106 by their selfefficacy. Meanwhile, Lebusa (2011) conducted a study in a small sample of students, and the results
107 proved that there is a positive effect of self efficacy on performance.

108 On the contrary, Powers (1991) argued that selfbelief increases the optimism in perception and in turn decrease
109 the individual performance. He believed that people make less effort when there is a confidence of achieving the
110 success. Bandura and Jourden (1991) concluded that no increase in individual performance was reported due
111 to self-efficacy of the participants of the study. They found that self-efficacy did not increase the performance
112 of participants in their study. They also explained that self-efficacy provides little incentives to increase the
113 degree of effort needed to achieve high level of performance. Stone (1994) found in an experiment that self-
114 efficacy judgments made in complex tasks are biased toward overestimates of peoples' personal ability. The
115 experiment that tested how overestimation of initial self efficacy affect decision making found that positive
116 expectations produced overconfidence, but did not increase effort or performance. Similarly Cervone and Wood
117 (1995) also found negative correlation between individual performance and self-efficacy. Vancouver et al. (2001)
118 conducted two studies in two samples of undergraduates using a within person procedure. In the first study
119 with 56 undergraduate participants, a reverse causality was found though the relationship between self-efficacy
120 and individual performance reported positive. The second study involving 185 undergraduates replicated the
121 findings of first study and found that past performance has a negative influence on future performance. In
122 contrast to the other findings, this study found that performance enhances self-efficacy rather than self efficacy
123 enhances performance demonstrating a reverse causality of the relationship. As indicated by Vancouver et
124 al. (2001), this study challenged the strongly established positive relationship between individual performance
125 and selfefficacy. However, this study was conducted among undergraduates by using a computer game in a
126 lab a setting. Vancouver et al. (2002) also conducted two experimental studies. The first study where 87
127 undergraduates were divided into two groups in an analytical computer game, and participants were allowed
128 to play ten experimental trials before each trial self-efficacy was measured. Self-efficacy was manipulated in
129 subsequent trials and tested whether the self-efficacy affects the performance. The findings also contradicted
130 most of previous studies on self efficacyperformance relationship, and no causal relationship was found between
131 two variables in the person level. This study also found that self-efficacy decreases individual performance. The
132 second study was conducted with 104 undergraduates. The results reconfirmed the findings of the first study that
133 demonstrates a negative relationship between selfefficacy and individual performance. ??vancouver and Kendall
134 (2006) confirmed again the negative relationship between two constructs in a laboratory study.

135 An instrument to measure the entrepreneurial self-efficacy with dimensions was developed by Chen, Greene
136 and Cride (1998) consisting financial control skills, risk-taking, management, innovation and marketing, while
137 DeNobel, Jung and Ehrlich (1999) developed a scale in entrepreneurial specific domain and tested its relationship
138 with entrepreneurial intentions and actions of practicing entrepreneurs. Results suggested significant relationship
139 between self-efficacy measured in entrepreneurial domain and entrepreneurial intentions. Zhao et al. (2005) tested
140 the relationship between self-efficacy measured in entrepreneurial specific domain and entrepreneurial intentions
141 and actions. The study focused the MBA students of business faculties in five universities. The survey was done
142 in two phases. First survey was administered on 778 incoming MBA students and second survey was conducted
143 after two years when the students were graduating. The results also found a positive relationship. Forbes
144 (2005) investigated the effect of self-efficacy measured in entrepreneurial domain on decision to start new firms
145 and effective management. The effect found was positive and significant. Brice and Spencer (2007) inquired
146 the variables that improve the likelihood for starting and effectively managing a firm. The study considered
147 graduating business students. The focus was the start-intention and effectively managing a venture. It was
148 found that higher the entrepreneurial self-efficacy of individuals higher the effectiveness of management. Wilson,
149 Kickul and Marlino (2007) conducted a study among MBA students and found that self-efficacy would act as
150 an obstacle to entrepreneurial performance. This study has mainly focused career intentions of adolescents and
151 adult students. Hmielecki and Baron (2008a) investigated the effect of self-efficacy on venture growth and results
152 proved a positive effect. In this study, self-efficacy was measured in entrepreneurial specific domain and firm
153 performance was the focus. On the contrary, Hmielecki and Baron (2008b) found that self-efficacy reduces firm
154 performance rather than increase under some moderating conditions.

155 Entrepreneurial self efficacy has also been studied as a predictor of entrepreneurial intention and or actions by
156 many researchers and found positive relationships (Fitzsimmons & Douglas, 2005 The literature review reveals
157 that self-efficacy measured in entrepreneurial domain have been studied as the predictors of entrepreneurial
158 intention and activities. But most of the studies were from the western context and have ignored the Asian
159 context. No studies have been conducted on effect of self-efficacy dimensions on firm level performance in Sri
160 Lankan context. To address this issue, the study tested research model as shown in Figure 1 below.

161 6 Methodology a) Sample and Data Collection

162 A cross sectional survey was undertaken in few steps. First, the dimensions of entrepreneurial selfefficacy were
163 identified through a rigorous literature review. Second, the main field survey was employed in a randomly

12 CONCLUSION

164 selected sample of 800 entrepreneurs from Sri Lankan small-scale hotel and restaurant industry. The sample
165 was dispersed on island wide covering five main areas; Colombo city, east coast south coast, up country and
166 ancient cities. Next, an exploratory factor analysis using Principal components method with Varimax rotation
167 was conducted to examine the validity of factor structure of instrument. Finally, structural equation model was
168 tested in AMOS to estimate the structural paths of the hypothesized research model. The questionnaire was
169 personally delivered among entrepreneurs. In total, 436 of the completed surveys were returned making response
170 rate 53 percent. Due to incompleteness, seven cases were removed from the analysis. A non-response bias using
171 groups based on entrepreneurs' gender, firm age, and number of employees was also examined. In each case, the
172 results were non-significant. Univariate and multivariate outliers were identified by estimating Mahalanobis D2
173 and deleted from the analysis. Testing four multivariate assumptions; normality, linearity, multicollinearity and
174 homoscedasticity ensured the suitability of data set for the structural equation model testing.

175 7 b) Measures

176 Measurement for the firm performance was adapted from this study that used the subjective from Venkataraman's
177 (1989) instrument, which includes five items. They measure entrepreneurs' satisfaction with return on corporate
178 investment, net profit position relative to competition, return on investment position relative to competition,
179 satisfaction with return on sales and financial liquidity position relative to competition. Bandura, (2005)
180 provided a guideline for self-efficacy scales stated that self efficacy belief is not a global trait but it should
181 be differentiated in various domains of functioning. He further emphasized that general measure will reduce
182 the predictive ability. Self-efficacy measured in entrepreneurial specific domain is known as Entrepreneurial
183 Self Efficacy (ESE). It is defined as the degree to which people perceive themselves as having the ability to
184 successfully perform the different roles of entrepreneurship (Chen, Greene, & Crick, 1998; De Noble, Jung, &
185 Ehrlich, 1999). Self-efficacy was measured in entrepreneurial specific domain by the instrument developed by
186 De Nobel et al. ??1999). The measure includes 23 items covering six theoretical dimensions of the construct.
187 Perception of the entrepreneurs/managers' ability to develop new product and market opportunities, build an
188 innovative environment, initiate investor relationships, define core purpose, cope with unexpected challenges, and
189 develop critical human resources were measured with five point Likert-scale ranging from strongly disagree to
190 strongly agree. Statements such as "I have the ability to find market opportunities for new products and services",
191 "I have the ability to identify new areas for potential growth" were included to measure the respondents efficacy
192 on developing product and market opportunities. V.

193 8 Results and Discussions

194 Descriptive statistics revealed that developing new product and market opportunities has the mean value of
195 3.9 with standard deviation < 1. Building an innovative environment, initiating investor relationship, defining
196 core purpose, coping with unexpected challenges and developing critical human resources also have considerably
197 higher mean values of 4.00, 3.9, 3.9, 3.8 and 3.9 respectively indicating standard deviations < 1 for all dimensions
198 of entrepreneurial self efficacy (see Table 1). The results of exploratory factor analysis clearly supported the
199 six-factor structure. All 23 items were loaded on its underlying factor at least at the .40 level.

200 This six-factor model accounted for 60 percent of the total variance. The loaded items are shown in Table ??
201 with their factor loadings.

202 9 Table 2 : Results of Factor Analysis

203 The structural model with direct effects of dimensions of entrepreneurial self-efficacy on firm performance has
204 proven a good overall model fit reporting $\chi^2=589.640$, .947, CFI=.954, IFI=.954, RMR=.033, RMSEA=.043.
205 The overall model-fit indices indicated that the observed data for direct relationships fit well with the theory. The
206 output for the direct effect model shows that all hypothesized direct structural paths proved expected direction
207 with statistical significance (see Table ??).

208 10 Table 3 : Standardized Regression Weights for Structural 209 Paths

210 The highest effect shows between IIR and performance while the lowest lies between CHR and performance.
211 The second highest value lies between DPM and performance. All values except the weight for CHR-performance
212 relationship are statistically significant at .005 level. This result indicates that five direct structural paths out
213 of six have been proved expected direction and statistical significance. Overall results of testing direct effect
214 hypotheses indicated that five hypotheses from H1 to H5 were accepted and H6 was rejected.

215 11 VI.

216 12 Conclusion

217 The results confirmed that existence of all six dimensions of entrepreneurial self-efficacy among Sri Lankan
218 entrepreneurs is at a considerably higher level. The entrepreneurs perceive that they are in the ability to develop

219 new products and market opportunities to build an innovative environment, initiate investor relationship, define
220 core purpose, and cope with unexpected challenges and developing critical human resources. In addition, result
221 indicated that five dimensions of selfefficacy except CHR are positively related to firm performance. It implies
222 that firms with highly efficacious entrepreneurs are well performing. Moreover existence of higher level of self
223 efficacy among entrepreneurs will be helpful for them to improve the performance of their entities since efficacious
224 human agency is a critical factor for the success of the entities operating in the presence of obstacles in an
225 underdeveloped and political economy. This area needs more research in different contexts for further clarification.
226 Also avenues for exploring situation among other categories such as non-entrepreneurs and professionals are for
227 future researchers.

228 **13 Estimate**

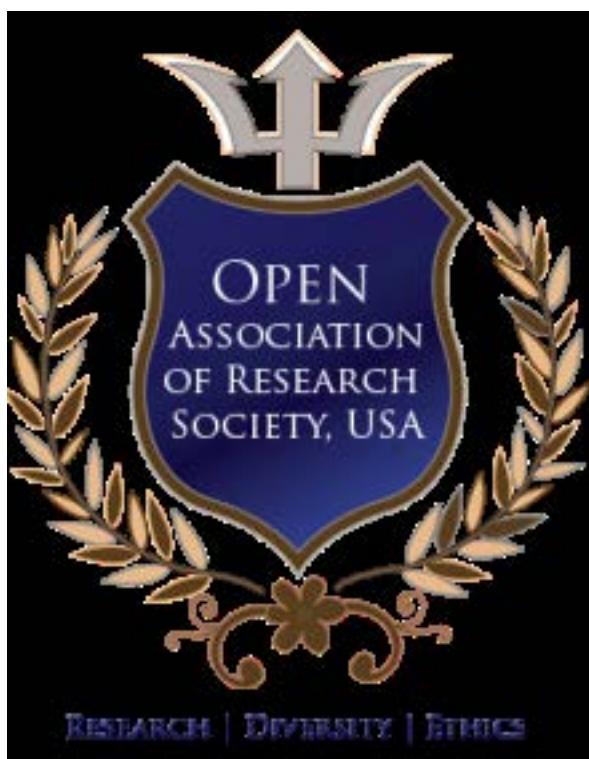


Figure 1:

1

Dimensions	N	Minimum	Maximum	Mean	SD	Std Error
Developing new product and market opportunities	429	1.00	5.00	3.81	.600	.028
Building an innovative environment	429	1.00	5.00	3.91	.574	.027
Initiating investor relationship	429	1.00	5.00	3.88	.620	.029
Defining core purpose	429	1.00	5.00	3.89	.684	.033
Coping with unexpected challenges	429	1.00	5.00	3.76	.722	.034
Developing critical human resources	429	1.00	5.00	3.84	.704	.034

Figure 2: Table 1 :

229

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230 .70
231 Have the ability to discover new ways to improve existing products.
232 .65 Have the ability to identify new areas for potential growth.
233 .74 Have the ability to design products that solve current problems.
234 .73 Have the ability to create products that fulfil customers' unmet needs.
235 .79 Have the ability to bring product concepts to market in a timely manner .42 Have the ability to determine
236 what the business will look like .48

.1 Building an innovative environment

237 Have the ability to create a working environment that lets people be more their own boss.
238 .82
239 Have the ability to develop a working environment that encourages people to try out something new.
240 .78
241 Have the ability to encourage people to take initiatives and responsibilities for their ideas and decisions
242 regardless of outcome.
243 .54
244 Have the ability to form partner or alliance relationship with others. .5.9

.2 Initiating investor relationships

245 Have the ability to develop and maintain favourable relationships with potential investors.
246 .83
247 Have the ability to develop relationships with key people who are connected to capital sources.
248 .81
249 Have the ability to identify potential sources of funding for investment .65

.3 Defining core purpose

250 Have the ability to articulate vision and values of the organization .78 Have the ability to inspire others to
251 embrace vision and values of the company.
252 .83
253 Have the ability to formulate a set of actions in pursuit of opportunities.
254 .85
255 Coping with unexpected challenges
256 Have the ability to work productively under continuous stress, pressure and conflict.
257 .64
258 Have the ability to tolerate unexpected changes in business conditions .75 Have the ability to persist in the
259 face of adversity .76

.4 Developing critical human resources

260 Have the ability to recruit and train key employees.
261 .49 Have the ability to develop contingency plans to backfill key technical .73
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