

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.

2 II.

3 The Sri Lankan Context

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 Regulatory role of the government such as lengthy and complex procedures and documentations, outdated rules and regulations are also considered as a heavy constraint for the development of the SME sector (Task Force for SME Sector Development Programme, 2002;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

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

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

4 III.

5 Literature Review

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

Stajkovic and Luthans (1998) conducted a meta-analysis to determine the magnitude of the relationship of working performance to self-efficacy. The relationship was proven positive and strong. According to the findings of the study, self-efficacy contributed to 28 percent of performance improvement. Argument against this meta-analytic study was that the study had considered only cross sectional designs and lower level of confident level (Vancouver et al., 2001). In an experiment of a sample of business school students, Seijts et al. (2004) found

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

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

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

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

6 Methodology a) Sample and Data Collection

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

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

7 b) Measures

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

8 Results and Discussions

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

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

9 Table 2 : Results of Factor Analysis

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

10 Table 3 : Standardized Regression Weights for Structural Paths

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

11 VI.

12 Conclusion

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

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

13 Estimate

S^{1 2}



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 :

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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

237 .1 Building an innovative environment

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

246 .2 Initiating investor relationships

247 Have the ability to develop and maintain favourable relationships with potential investors.
248 .83
249 Have the ability to develop relationships with key people who are connected to capital sources.
250 .81
251 Have the ability to identify potential sources of funding for investment .65

252 .3 Defining core purpose

253 Have the ability to articulate vision and values of the organization .78 Have the ability to inspire others to
254 embrace vision and values of the company.
255 .83
256 Have the ability to formulate a set of actions in pursuit of opportunities.
257 .85
258 Coping with unexpected challenges
259 Have the ability to work productively under continuous stress, pressure and conflict.
260 .64
261 Have the ability to tolerate unexpected changes in business conditions .75 Have the ability to persist in the
262 face of adversity .76

263 .4 Developing critical human resources

264 Have the ability to recruit and train key employees.
265 .49 Have the ability to develop contingency plans to backfill key technical .73
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