Examining Strategic Improvisation Andperformance Relationship INTHE SMES: Moderating Role of Entrepreneurial Self-Efficacy

Rosli Mahmood and Hatinah Abu Bakar

School of Business Management, College of Business, Universiti Utara Malaysia, Kedah, Malaysia

Abstract: The aim of this research is to examine the relationship betweenstrategic improvisation and performance of Small-Medium Enterprises (SMEs). The study also seeks to determine the moderating effect of entrepreneurial self-efficacy on the strategic improvisation and performance relationship. Based on the theoretical consideration, a model was proposed to examine these relationships. Quantitative survey method was employed and data were collected from the owner/managers who were randomly selected from a sampling frame of registered SMEs.A total of 368 usable responses were received from a total of 1920 distributed questionnaires,giving a response rate of 19.2%. Partial Least Square (PLS) structural equation modelling was used for the data analysis. The findings revealed that significant relationship exists between strategic improvisation and performance and that entrepreneurial self-efficacyplays a moderating role in the strategic improvisation and performance relationship.

Key words: Strategic improvisation, entrepreneurial self-efficacy, performance, small and medium enterprises

INTRODUCTION

The importance of the Small and Medium Enterprises (SMEs) in nurturing the economic growth of most nations has been well recognized. SMEs create employment opportunities at a quicker pace than large organizations, promote entrepreneurial skills, capabilities and innovation and enlarge the competitive forces of the markets. However, SMEs are also susceptible to the dynamic and hostile economic changes and many of these firms failed due to their inability to cope with this uncertainty in the environment. Among the key issues highlighted were the lack of entrepreneurial competencies among the key founder-owners (Kiggundu, 2002) and shortage of capabilities and skills in their top management. These are essential aspects of SMEs that need to be tackled to alleviate the issue of business failures and is more urgent in the business environment where competitive rivalry has multiplied in its magnitude. Therefore there is a need for SMEs to refigure their strategic orientation in the form of strategic improvisation and entrepreneurial self-efficacy in order to benefit from the rapid changes and to gain and maintain competitive advantage. Thus this study aims to investigate the effects of strategic improvisation and entrepreneurial self-efficacy on the performance of SMEs. Specifically this study seeks to answer the following research questions; Does strategic improvisation influence SME performance and is entrepreneurial self-efficacy an important moderating variable in the strategic improvisation and performance relationship?

Literature review

Strategic improvisation and performance: Strategic Improvisation (SI) is a form of intuition that guides action in a spontaneous way and is something done or produced on the spur of the moment rather than through a deliberate process of thought and evaluation Moorman and Miner, 1998). It has also been increasingly recognised as an important strategy to achieve competitive advantage for most organizations and as an alternative means to break away from the traditional strategic planning on how organizations adapt to the dynamism of the environment. According to Eisenhardt (1997) strategic improvisation enables an organization to cope with flexibility and provides it with capabilities to adapt to changing environmental demands rapidly and effortlessly.Because it occurs in certain circumstances that requires fast learning and adaptation, strategic improvisation provides value to the organization (Chelariu *et al.*, 2002). Furthermore, most organizations are facing with limited resources, intense time pressure and unique problemswithout the availability of pre-planned solutions. Due to its abilityto spontaneously recombine knowledge, processes and structure in real time, strategic improvisation may result in creative problem solving that is grounded in the realities of the moment (McKnight and Bontis, 2002).

Past studies on the relationship between improvisation and performance were mixed or unclear (Arshad and Hughes, 2009; Bakar *et al.*, 2015). Vera and Crossan (2005) established an indirect relationship

between improvisation and performance but through some moderating factors and other studies focused on new product success teams or new product development as the main performance measures (Akgun *et al.*, 2006; Leybourne and Smith, 2006; Vera and Crossan, 2005; Akgun and Lynn, 2002). Leybourne and Smith (2006) measured the impact of improvisation as mediator between intuition and project success but found no statistically significant relationship between improvisation and satisfactory project outcomes. Other studies included Hmieleski and Corbett (2008) who focusedon the relationship between improvisation behaviour with performance, Hmieleski *et al.* (2013) on improvisational behavior of entrepreneurs and performance and Arshad and Hughes (2009) who investigated the direct impact of improvisation on firm performance. Nonetheless, there is still a paucity of studies that examine the direct relationship between strategic improvisation and firm performance as a whole. Thus the following hypothesis:

- H_1: There is significant and positive relationship between strategic improvisation and SME performance

Entrepreneurial self-efficacy as moderator: Self-efficacy is the cognitive procedure by which an individual assesses his capability to do a certain job (Bandura, 1977). People with high self-efficacy believe that they have the suitable skills to productively perform a job with little assistance or reliance (Hsieh *et al.*, 2012). Numerous studies have confirmed the significance of Entrepreneurial Self-Efficacy (ESE) for enhancing performance (Krueger, 2000; Markman and Baron, 2003). Hallak *et al.* (2012) who examined the relationship between ESE and enterprise performance in regional Australia found that the owners' ESE has a significant positive effect on performance. Similarly, Luk and Moy (2006) found significant relationship between ESE and effectiveness of firm performance. Kumar and Uzkurt (2011) explored the effect of self-efficacy on the innovativeness of professionals in Turkey and found a positive relationship between self-efficacy and innovativeness, while a study by Sequeira *et al.* (2007) indicated a self-efficacy influence on entrepreneurial intentions and nascent behavior. Meanwhile, Herath and Mahmood (2013) proposed a research model with the mediatory effect of ESE in the relationship between strategic orientation and firm performance. The study found that ESE has a partial mediating role on that relationship. Similarly Fei and Lu (2009) revealed a mediating effect of ESE onthe relationship between leadership and innovative behavior.
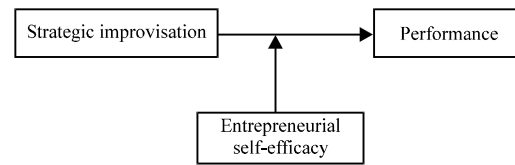

Fig. 1: Proposed research framework

However, a study by Hmieleski and Corbett (2008) on the moderating effect of ESE on the relationship between improvisational behavior and performances found that ESE positively increases the entrepreneurs' improvisational behaviour with the performance of their firms but negatively on the relationship with their work satisfaction. Based on the above discussion, the following hypothesis is posited:

- H_2: Entrepreneurial self-Efficacy moderates the relationship between strategic improvisation and SME performance

Research framework: Figure 1 below illustrates the framework that hypothesizes the relationships between strategic improvisation, entrepreneurial self-efficacy and performance that are important for achieving sustainable competitive advantage. This framework is underpinned by the Resource-based Theory which assumes that a firm has the ability to acquire or possess certain unique resources that are valuable and rare which enablesit to achieve competitive advantage and that can lead to superior long-term performance (Barney, 2002). Thus strategic improvisation and entrepreneurial self-efficacy can be conceived as a form of intangible resources within the firms that may be the value driver in achieving competitive advantage.

MATERIALS AND METHODS

This study employed quantitative survey questionnaire to collect the data from the target population of SMEs in Malaysia. The owner/managers were selected as key informants. A total of 368 useable responses were received from 1920 questionnaires randomly distributed to SMEs which fulfilled the criteria. Constructs were operationalized based on items developed from prior studies. The strategic improvisation of seven items was measured using scales adapted from Vera and Crossan (2005) while entrepreneurial self-efficacy was adapted from Drnovsek and Glas (2002) with 19 items. All constructs were measured using five-point Likert scales where '5' represents strongly agree and '1' represents strongly

disagree. For measuring performance, a subjective self-report assessment was used. This technique was employed because it was expected that the owner/managers would be unwilling to disclose full financial data. This study measured performance with eight items as suggested by Wiklund and the respondents were asked to rate their firm performance on a five-point rating scale. It has been found that subjective measures are correlated with the objective measures of performance (Dess and binson, 1984). Partial Least Square (PLS) path modeling was used to assess and test the theoretical model. PLS was used because it could estimate the relationship between constructs and relationships between indicators and their latent constructs at the same time than any other conventional regressions (Hair *et al.* 2014). The PLS can also give more accurate estimates of moderator effects by accounting for the error that decreases the estimated relationships and improves the validation of theories.

RESULTS AND DISCUSSION

Measurement model: The validity of the measurement model was assessed by testing the convergent validity and discriminant validity. The convergent validity exists when the indicators of one construct converge or share a higher proportion of variance. The violation of the convergent validity adversely affects the findings. According to Hair *et al.* (2010) the loadings of 0.7 and above is an ideal indicator while loadings value of 0.5 is regarded as acceptable but the manifest variables with loading value of less than 0.5 should be dropped (Chin, 2010). As shown in Fig. 2, only item loadings of 0.7 and above were considered. Composite Reliability (CR) values were above 0.70 and the Sverage Variance Extracted (AVE) values meet the minimum criteria of 0.50 (Henseler *et al.*, 2009) The CR value is ranged between 0.924 and 0.958 and AVE also ranged from 0.637-0.669 (Table 1). This confirms that the measurement model has an adequate level of convergent validity. Discriminant validity is the extent to which a set of itemsmeasuring a construct is distinct from another set of items measuring other constructs (Hair *et al.*, 2010). In examining discriminant validity the Fornell and Larker (1981) criterion was used. It compares the square root of the

AVE values with the construct correlations and that each construct's AVE should be higher than construct's highest squared correlation with other construct. Table 1 also indicates that there is adequate discriminant validity since the diagonal elements are significantly greater than the off-diagonal elements in the corresponding rows and columns.

Finally, in order to testify the reliability of the variables, Cronbach (1951)'s alpha was used to validate the reliability of the variables and the minimum cut off point must above 0.70. Thus, all the internal reliabilities of scales were ranged from 0.901-0.952 (Table 1) which was clearly acceptable. Hence, the measurement model was satisfactory and provided sufficient evidence in terms of reliability, convergent validity and discriminant validity.

Structural model: Path analysis was used to test the hypotheses generated from the research model. Path coefficients signify the strengths of the relationships among the independent and dependent variables. The highest value symbolizes the strongest effect of predictor (exogenous) latent variable towards the dependent (endogenous) latent variable. Using a bootstrapping technique with a re-sampling of 500, the path estimates and t-statistics were calculated for the hypothesized relationships.

In moderation analysis, the R^2 change becomes an important issues. Cohen (1988) the rules of effect size (f^2) are 0.02 as a small effect, 0.15 as a medium effect and 0.35 as a large effect. Chin *et al.* (2003) state that even a small interaction effect can be meaningful under extreme moderating conditions, if the resulting beta changes are meaningful, then it is important to take these conditions into account. This study indicates that effect size (f^2) 0.11 as a medium effect, thus, this study continued to test and see whether interaction effects is significant or not.

Figure 2 and Table 2 present the results of the hypotheses testing. Path coefficient and t-value results show that H1 are significant (t-value = 4.739). It indicates that strategic improvisation has a significant relationship with SME performance. To determine the moderating effect of entrepreneurial self-efficacy on the relationship between strategic improvisation and performance,

Table 1: Results of construct and discriminant validity analysis

Construct	ESE	PER	SI	AVE	CR	CA
Entrepreneurial Self Efficacy (ESE)	0.798			0.637	0.958	0.952
SME Performance (PER)	0.764	0.818		0.669	0.924	0.901
Strategic Improvisation (SI)	0.852	0.716	0.813	0.661	0.932	0.914

Table 2: Results of hypotheses testing

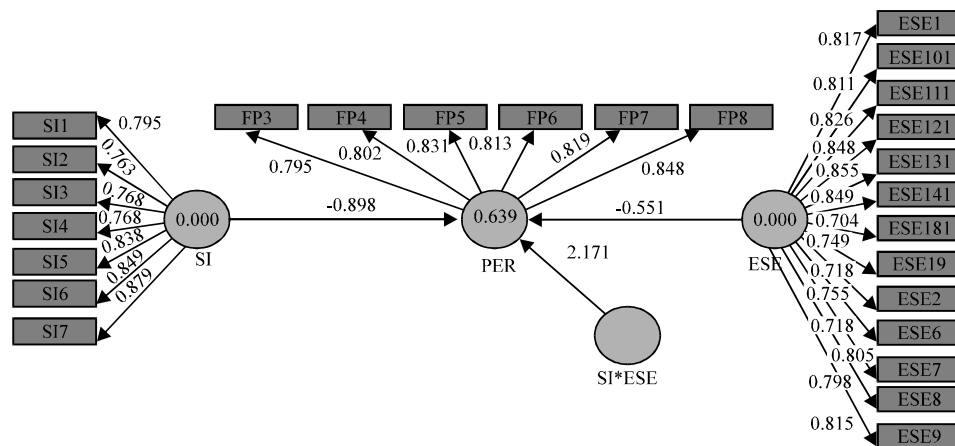| Hypothesis	Relationship	Coefficient	t-value	Decision
H_1	Strategic Improvisation-> SME performance	-0.898	4.739*	Supported
H_2	Strategic Improvisation ESE-> SME performance	2.171	6.306*	Supported

ESE = *p<0.05; t-value >1.645

Fig. 2: Path analysis result

Cohen (1988)'s effect size was calculated. The result indicated (t-value = 6.306**) a statistically significant relationship and the hypothesis H_2 is supported. This means that ESE moderates the relationship between strategic improvisation and SME performance.

CONCLUSION

The findings of this study confirm that significant relationship exists between strategic improvisation and performance of SMEs. Strategic improvisation which constitutes spontaneity, creativity and intuition is even necessary in situations that require immediate corrective actions where most of the SMEs are in. Improvisation may increase the flexibility and adaptability of the SMEs in those situations. In addition, it can be a source of competitive advantage because creativity and intuition in strategic decision making affects performance in changing business environments. To succeed SMEs need to foster more strategic improvisational actions that can bring out change, enhance operational efficiency and contribute to organizational performance and competitive advantage. The study also examined the moderating effect of entrepreneurial self-efficacy on the relationship between strategic improvisation and performance of SMEs. The finding establishes the moderatingrole of entrepreneurial self-efficacywhich fits into the strategic improvisation-performance relationship model. These reinforce previous studies that firms with people of higher beliefs in their capabilities and abilities can perform well which in turn improve organizational performance. In the face of a fast changing and complex business environments, the entrepreneurial self-efficacy of the owner/managers is needed to meet emerging opportunities and threats and to anticipate direction and

nature of business change for the SMEs' survival and sustainability. Therefore, SMEs need both strategic improvisation and entrepreneurial self-efficacy to enable them to cope better in the everchanging business environments.

REFERENCES

Akgun, A.E. and G.S. Lynn, 2002. New product development team improvisation and speed-to-market: An extended model. Eur. J. Innovation Manage., 5: 117-129.

Akgun, A.E., G.S. Lynn and J.C. Byrne, 2006. Antecedents and consequences of unlearning in new product development teams. J. Prod. Innovation Manage., 23: 73-88.

Arshad, D. and P. Hughes, 2009. Examining organizational improvisation: The role of strategic reasoning and managerial factors. World Acad. Sci. Eng. Tech., 54: 548-554.

Bakar, H.A., R. Mahmood and N.N.H. Ismail, 2015. Effects of knowledge management and strategic improvisation on SME performance in Malaysia. Asian Social Sci., 11: 207-214.

Bandura, A., 1977. Self-efficacy: Towards a unifying theory of behavioral change. Psychological Rev., 84: 191-215.

Barney, J.B., 2002. Gaining and Sustaining Competitive Advantage. 2nd Edn., Prentice Hall, Upper Saddle River, NJ., ISBN-13: 9780130307941, Pages: 600.

Chelariu, C., W.J. Johnston and L. Young, 2002. Learning to improvise, improvising to learn: a process of responding to complex environments. J. Bus. Res., 55: 141-147.

Chin, W.W., 2010. How to Write Up and Report PLS Analyses. In: Handbook of Partial Least Squares: Concepts, Methods and Application, Vinzi, V.E., W.W. Chin, J. Henseler and H. Wang (Eds.). Springer, New York, USA., ISBN-13: 9783540328254, pp: 655-690.

Chin, W.W., B.L. Marcolin and P.R. Newsted, 2003. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. Inf. Syst. Res., 14: 189-217.

Cohen, J., 1988. Statistical Power Analysis for the Behavior Science. 2nd Edn., Lawrance Eribaum Association, New Jersey, USA., Pages: 559.

Cronbach, L.J., 1951. Coefficient alpha and the internal structure of tests. Psychometrika, 16: 297-334.

Dess, G.G. and R.B. binson, 1984. Measuring organizational performance in the absence of objective measures: the case of the privately held firm and conglomerate business unit. Strategic Manage. J., 5: 265-273.

Drnovsek, M. and M. Glas, 2002. The entrepreneurial self-efficacy of nascent entrepreneurs: The case of two economies in transition. J. Enterprising Culture, 10: 107-131.

Eisenhardt, K.M., 1997. Strategic decisions and all that jazz. Bus. Strategy Rev., 8: 1-3.

Fei, C.T. and H.D. Lu, 2009. The relationship of entrepreneurial leadership and innovative behaviour: the mediating effect of entrepreneurial self-efficacy and the moderating effect of openness to experience and extraversion. Inf. Tech. J., 13: 1035-1044.

Fornell, C. and D.F. Larker, 1981. Evaluating structural equation models with unobservable variables and measurement error. J. Marketing Res., 18: 39-50.

Hair, J.F., G.T.M. Hult, C.M. Ringle and M. Sarstedt, 2013. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). SAGE Publication, Thousand Oaks, CA., USA., ISBN-13: 978-1452217444, Pages: 328.

Hair, J.F., W.C. Black, B.J. Babin and R.E. Anderson, 2010. Multivariate Data Analysis: A Global Perspective. 7th Edn., Pearson Education Inc., Upper Saddle River, NJ., USA., ISBN-13: 9780135153093, Pages: 800.

Hallak, R., G. Assaker and P. O'Connor, 2012. Are family and nonfamily tourism businesses different? An examination of the entrepreneurial self-efficacy-entrepreneurial performance relationship. J. Hospitality Tourism Res., 35: 1-26.

Henseler, J., C.M. Ringle and R.R. Sinkovics, 2009. The use of partial least squares path modeling in international marketing. Adv. Int. Marketing, 20: 277-319.

Herath, H.M.A. and R. Mahmood, 2013. Strategic orientation based research model of SME performance for developing countries. Intl. Acad. Res. J. Bus. Mgt., 1: 1-18.

Herath, H.M.A. and R. Mahmood, 2014. Determining a model of SME performance based on the dimensions of entrepreneurial orientation and absorptive capacity of the firm. Proceedings of the Annual Conference on Management and Social Sciences, August 9-11, 2016, Hawaii, USA., pp: 15-17.

Hmieleski, K.M. and A.C. Corbett, 2008. The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction. J. Bus. Venturing, 23: 482-496.

Hmieleski, K.M., A.C. Corbett and R.A. Baron, 2013. Entrepreneurs' improvisational behavior and firm performance: A study of dispositional and environmental moderators. Strategic Entrepreneurship J., 7: 138-150.

Hsieh, P.H., J.R. Sullivan, D.A. Sass and N.S. Guerra, 2012. Undergraduate engineering students' beliefs, coping strategies, and academic performance: An evaluation of theoretical models. J. Exp. Educ., 80: 196-218.

Kiggundu, M.N., 2002. Entrepreneurs and entrepreneurship in Africa: What is known and what needs to be done. J. Dev. Entrepreneurship, 7: 239-258.

Kumar, R. and C. Uzkurt, 2011. Investigating the effects of self efficacy on innovativeness and the moderating impact of cultural dimensions. J. Intl. Bus. Cult. Stud., 4: 1-15.

Leybourne, S. and E.S. Smith, 2006. The role of intuition and improvisation in project management. Intl. J. Project Manage., 24: 483-492.

Luk, V.W. and J. Moy, 2006. An Exploration Study: Entrepreneur's Self-efficacy, Social Network and HR Practices in Relation to Firm Effectiveness and Intention to Grow for SMEs in Hong Kong. IEDMR Office, School of Business, Hong Kong Baptist University, Kowloon Tong, Hong Kong, Pages: 13.

Markman, G.D. and R.A. Baron, 2003. Person-entrepreneurship fit: Why some people are more successful as entrepreneurs than others? Hum. Resour. Manage. Rev., 13: 281-301.

McKnight, B. and N. Bontis, 2000. Eimprovisation: Collaborative groupware technology expands the reach and effectiveness of organizational improvisation. Knowl. process Manage., 9: 219-227.

Moorman, C. and A.S. Miner, 1998. The convergence of planning and execution: Improvisation in new product development. J. Marketing, 62: 1-20.

Sequeira, J., S.L. Mueller, and J.E. McGee, 2007. The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. J. Dev. Entrepreneurship, 12: 275-293.

Vera, D. and M. Crossan, 2005. Improvisation and innovative performance in teams. Organiz. Sci., 16: 203-224.