

# Driving Food and Beverage SMEs Innovation

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**Abstract—** This study proposes the factors of innovation (i.e., incremental and radical) on SMEs performance in the context of food and beverage (F&B) industry in southern Thailand. This study is in line with Thailand new policy labelled as “Thailand 4.0”; an economic scheme aimed at developing a value-based economy and pull Thailand out of the middle-income trap and push Thailand in the high-income range via innovation agenda. The current study expected that the entrepreneurial orientation, market orientation and human capital have significant positive effects on innovation and that innovation affected SMEs performance positively. It is anticipated that the findings help to support the development of innovation of SMEs in Thailand. To address these challenges, it is imperative for Thailand to make strong efforts to foster innovation. Innovation is much more than research and development (R&D); it also involves the actions of entrepreneur to upgrade their characteristics level, enhance their organization and production methods, develop new activities and enter new markets. In addition, the decisive action and strategic reforms of F&B firms are required to ensure the long-term sustainability economic development and achieve Thailand’s 4.0 policy.

**Keywords:** *incremental innovation, radial innovation, entrepreneurial orientation, market orientation, human capital*

## I. INTRODUCTION

SMEs act as the key driver of economic growth because of the critical role they play in enhancing the economy of a country [1,2]. Since 2005, there has been a decline in the gross domestic product (GDP) of SMEs, which is considered to be 37.4 percent of total GDP. This signals indicate the critical need to boost the competitive advantage of SMEs especially in the face of globalization where SMEs need to compete in the international arena. Noting the importance to enhance SMEs competitiveness, the Thai government has incorporated innovation agenda into the Thai Industrial Development Strategy 4.0 for 20 years (2017-2036). The strategy point out how SMEs can be driven by applied innovation and competitive advantage can be developed and created. Innovation is also a tool to facilitate sustainable growth of the business [3]. Due to the government’s focus on the national agriculture sector, Thailand food and beverage (F&B) industry has become an important part of the agro-based industry compared to other sectors, Thailand is one of the biggest producers and

exporters of food among Asian countries, exporting food accounts totaling 23.5 billion EUR in 2015. This, it is known as the “food basket of Asia”. In order to survive and compete in the market world, Thai SMEs in food and beverage need to adapt and enhance their performance by focusing on innovations activities. This is the crucial challenge for the industry to be the growing competition not only from inside the region but also from abroad.

## II. MATERIALS AND METHODS

The target population for this research is SMEs in Food and Beverage (F&B) industry in southern Thailand. The SMEs are listed on the website of the Department of Industrial Works (DIW) of Thailand (diw.go.th). There are 3,757 F&B enterprises, which include small, medium, and large businesses. According to Kotey and Meredith [4] and Nakhata [5], the characteristics of SMEs are different based on the business infrastructure environment which implies their geographic location. Most studies were done in the central region which includes its capital city Bangkok as reflected on the number of SMEs, SMEs infrastructures, and modern types of SMEs that operate. Hence, the researcher utilizes the stratified random sampling technique to identify the sample that meets the inclusionary criteria. For the data analysis, the two types of software (i.e., SPSS and SmartPLS) were used in the present study. SPSS Version 23 was employed for descriptive statistics, and common method variance (CMV) whereas SmartPLS software was utilized for hypotheses testing. The conceptual framework of this study is presented in Fig 1.

## III. RESULTS

The results revealed that all of the three aspects of EO – innovativeness, pro-activeness and constructive risk taking – had positively associated with innovation. The relationship between innovativeness and radical innovation had a negative impact and it was no relationship. These results were also supported by the findings of previous studies, such as O’Cass and Weerawadena’s [6] research on innovativeness and the intensity levels of organizational innovation in terms of manufacturing SMEs in Australia. The authors also claimed that the factor of innovativeness had a significant impact on the intensity level of

organizational innovation. Furthermore, innovativeness also contributed in terms of adding a substantial amounts of expertise to companies [7].

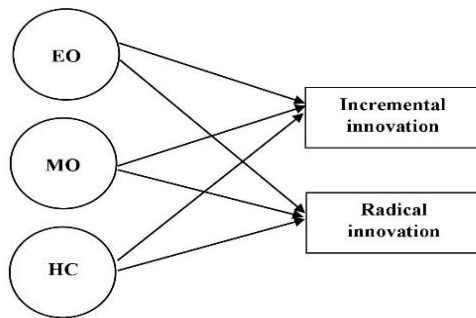


Fig 1. Conceptual Framework

Pro-activeness, which is the second aspect of EO, were found to have positive impact on the components related to incremental and radical innovation in this current study. The prior study and the relevant literature regarding the Thai F&B SMEs entrepreneurship indicated that pro-activeness was the most significant aspect of EO [7,8,9,10]. As a result, smaller companies may be less motivated in terms of engaging the pro-active behavior required to become competitive, at least in comparison to large companies and organizations in developed countries [11].

The findings of constructive risk-taking, positive and significant effects in terms of the incremental and radical innovation. The results in this study are in agreement with those of Lawson and Samson [12], who indicated that a willingness to take risk was a preferred behavior for innovative companies. Furthermore, Tayauova [7] discovered a connection between risk-taking and strategic adaptation in companies in Kazakhstan and Kyrgyzstan. Another benefit of risk taking behavior is that it allows SMEs to take on investment projects with fewer freezable results [8].

In term of market orientation, for proactive market orientation, the findings were had a positive impact the relationship between proactive and innovation (incremental and radical innovation). On the other hand, there had no relationship between responsive and incremental and radical innovation. The results in this study are in agreement with the concept proposed by Narver et al. [13] that responsive market orientation focused on customers, which require radical production innovation.

The results of human capital revealed that both aspects of HC– general human capital and specific human capital – had the relationship effect on innovation. These results were also supported by the findings of previous studies, such as Masatoshi Kato, Hiroyuki Okamuro, and Yuji Honjo [14] found that founders with greater human capital are more likely to yield innovation outcomes. Because certain types of human capital may boost research and development (R&D) investment, which possibly results in innovation outcomes. Major findings are reflected in terms of the significant indirect effect for each of EO, MO, and HC.

The results of this research is also consistent with a research in which the findings were found that having the capability of human capital the firm is able to create entrepreneurship behavior and improve the organizational performance [15]. The organizational performance can be enhanced with creating an environment in the organization in which human capital of employees is improved and well implemented in construction organizations in Thai F&B SMEs industry.

Based on the resource based view by Barney [16], if a firm will able to possess VRIN characteristics of internal assets (which are Valuable, Rare, imperfectly imitable, and Non – substitutable), the organization can improve and accomplish excellent performance and sustainable competitive advantage. It implies that because of F&B SMEs industry may be lacking in terms of the key resources needed in doing business, thereby, the firms may not have strategic flexibility to compete their competitors in Thai F&B industry. In achieving successful flexibility, a small and medium firm is expected to be able to optimize its business processes and achieving operational efficiency by utilizing adaptive resources and reconfiguring the processes. Similarly, Supeno, Sudharma, Aisjah, and Laksmana [17] indicate that a SME which is able to manage its intellectual capital optimally will improve its capability which in turn can effectively implement strategies and making it flexible organization.

#### IV. DISCUSSION

Employing RBV in this study primarily focuses on researching the relationship between a firm’s resource and innovation. This research makes a few contributions to the existing literature. First, this research seeks to exploit all strategic facets, including EO, MO and HC, which to our knowledge have not been previously perform. That is, unlike most other study, this research looks at the relationship between innovation and MO and EO, but it also adds a third facet into the structure: HC. Next, the current study examines the effects of exploration and exploitation methods relating to radical and incremental innovation and the difference they make on firm performance. Apart from those contributions, since this research uses firms in the context of an emerging economy instead of the usual samples in previous researches that are a part of developed economies, the results of this study would support a knowledge of entrepreneurship and innovation behavior of SMEs in the emerging markets. Moreover, the decision on incremental and radical innovation has a fundamental role in firm performance. Outward-looking views of EO, MO, and HC give market knowledge and result in new decisions to exploit and/or explore opportunities for innovation.

The present study focuses on Thailand’s SMEs in food and beverage firms without allowing sector differentiation. Nevertheless, this sort of limitation is true of most studies in industrial marketing management and entrepreneurship. Hence, to generalize these discoveries, further research within other countries, other degrees of economic development, and within other industrial sectors is necessary. Also, the current research focuses on the effects EO, MO, and HC. However, other strategic dimensions may be instrumental in incremental and radical innovation. Therefore, further research should examine the other

strategic methods' effects on radical and incremental innovation. Finally, investing the effects of differing levels of EO, MO, and HC on innovation would add a significant new contribution to the literature.

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#### REFERENCES

- [1] Ahmad, N. H. "A cross cultural study of entrepreneurial competencies and entrepreneurial success in SMEs in Australia and Malaysia", 2007
- [2] Charoenrat, T., and Harvie, C. The efficiency of SMEs in Thai manufacturing: A stochastic frontier analysis. "Economic Modelling", 43, 372-393, 2014
- [3] Chan, G., & Anadon, L. D. "Improving decision making for public R&D investment in energy: utilizing expert elicitation in parametric models", 2016.
- [4] Kotey and Meredith. "Relationships among Owner/Manager Personal Values, Business Strategies, and Enterprise Performance". *Journal of Small Business Management*, 35(2), 37-64. 1997
- [5] Nakhata, C. "The relationship between job dimensions and job satisfaction of SME entrepreneurs in Thailand". *Journal of American Academy of Business, Cambridge*, 15(2), 220-227, 2010.
- [6] O'Cass, A., and Weerawardena, J. "Examining the role of international entrepreneurship, innovation and international market performance in SME internationalisation". *European journal of marketing*, 43(11/12), 1325-1348, 2009.
- [7] Tayauova, G. "The impact of international entrepreneurial orientation on strategic adaptation". *Procedia-Social and Behavioral Sciences*, 24, 571-578, 2011.
- [8] Casillas, J. C., Moreno, A. M., and Barbero, J. L. "A configurational approach of the relationship between entrepreneurial orientation and growth of family firms". *Family Business Review*, 23(1), 27-44, 2010.
- [9] Lumpkin, G. T., and Dess, G. G. "Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle". *Journal of business venturing*, 16(5), 429-451, 2001.
- [10] Miller, D. "Miller (1983) revisited: A reflection on EO research and some suggestions for the future". *Entrepreneurship Theory and Practice*, 35(5), 873-894, 2011
- [11] Taylor, M. "Partial differential equations II: Qualitative studies of linear equations (Vol. 116)". *Springer Science & Business Media*, 2013.
- [12] Lawson, B., and Samson, D. "Developing innovation capability in organisations : a dynamical capabilities approach". *International journal of innovation management*, 5(03), 377-400, 2001.
- [13] Narver, J. C., Slater, S. F., and MacLachlan, D. L. "Responsive and Proactive Market Orientation and New-Product Success". *Journal of Product Innovation Management*, 21(5), 334-347, 2004.
- [14] Kato, M., Okamuro, H., and Honjo, Y. "Does Founders' Human Capital Matter for Innovation? Evidence from Japanese Start-ups". *Journal of Small Business Management*, 53(1), 114-128, 2015.
- [15] Barney, J. B. "Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view". *Journal of management*, 27(6), 643-650, 2001.
- [16] Barney, J. "Firm resources and Sustained competitive advantage". *Journal of management*, 17(1), 99-120, 1991.
- [17] Supeno, H., Made, S., Siti, A., and Arsono, L. "The Effects of Intellectual Capital, Strategic Flexibility, and Corporate Culture on Company Performance: A Study on Small and Micro-Scaled Enterprises (SMEs) in Gerbangkertosusila Region, East Java". *International Business and Management*, 11(1), 1-12, 2015.