Conference Paper


Watcharaphong Leartsurawat\textsuperscript{1,2}, Amnard Taweesangrungrungroj\textsuperscript{2}, and Chanya Jenpanich\textsuperscript{2}

\textsuperscript{1}Department of Agro-Industrial Technology, Faculty of Agro-Industry, Kasetsart University 50 Ngamwongwan Road. Lad Yao, Chatuchak, Bangkok 10900, Thailand
\textsuperscript{2}Technopreneurship and Innovation Management Program, Graduate School, Chulalongkorn University 254 Phayathai Road, Pathumwan, Bangkok 10330, Thailand

Abstract

This study is a qualitative research with the use of case study methodology. This research is focused on the influence of entrepreneurial origin (opportunity or necessity) and firm’s innovation strategy (technology-push or market-pull) mixes on levels of product innovativeness in the cases of agro-industry entrepreneur (agro-preneur) in Thailand. The Origin-Strategy Mixes (OSM) model was developed from past literature to help identify possible mixes and explain the relationships. The paper used narrative approach in investigating on these relationships on three Thai organic-based agro-preneurs. The empirical study has shown that entrepreneurial origin and business strategy mixes do discordantly affect levels of product innovativeness. The study provides initial understanding on the importance of OSM influences, which can be applied to improve the competitiveness of agro-preneur in Thailand. The main limitation of this study is that only three cases in Thailand were investigated. To address this, future research should emphasize on larger sample size to improve generalization ability. The use of quantitative research to further verify the OSM model is also encouraged.

Keywords: Entrepreneur; Innovation; Origin; Strategy; Agro-industry

INTRODUCTION

In 2014, agricultural products accounted for 1,308,905 million THB, about 18 percent of Thailand’s total export value of 7,306,533 million THB [1]. This illustrates the importance of agricultural and agro-industry related sectors in Thailand. As Thailand is moving...
forward into the knowledge economy era, the country’s capability to constantly deliver novel and innovative products into both local and international markets is crucial for the nation’s competitiveness. Thailand’s agro-preneurs play an important role in this regard as they constantly introducing new and valuable agro-industrial related products into the market. Consequently, level of product innovativeness is an important factor for the growth and sustainability of an agro-preneur’s business.

Base on the past literature, entrepreneur’s characteristics are imperatively accountable for his or her firm’s approaches of doing business and also its outcomes. On the other hand, the firm’s innovation strategy, which the entrepreneur could liberally select, also plays another essential role in the firm’s behaviors and accomplishments. This study thus focused on the influence of entrepreneurial origin and firm’s innovation strategy mixes on the levels of product innovativeness. The Origin-Strategy Mixes (OSM) model was developed from past literature to help identify possible mixes and explain their relationships and influences on the levels of product innovativeness. This study employed the case study methodology and utilized the narrative approach to analyze three cases of Thai agro-preneurs who are active producers of organic-base agro-industry products to verify the proposed OSM model and relationships.

LITURATURE REVIEW

Entrepreneur Origin

According to global entrepreneurship monitor (GEM) report 2001 publications, each individual entrepreneur can be designated by his or her entrepreneurial origin. An opportunity entrepreneurship is considered when an individual voluntary pursuit of a unique market opportunity while a necessity entrepreneurship is considered when an individual engages in entrepreneurship because there is a nonappearance of other employment opportunities and it was the topmost option presented at that time [5, 7].

Firm’s Innovation Strategy

Contrary to the entrepreneur origin characteristic, an individual can freely choose his or her firm’s innovation strategy as he or she sees fit. Technology-push and market-pull are two main innovation strategies that have piped the interests of scholars since the 1990s. Technology-push oriented firms get product concepts and designs from an existing or developing technology and thus aim to commercialize products developed
from that specific technology, while market-pull oriented firms sense existing unsatisfied market demands and thus create and manufacture products to satisfy that market segment [2]. Technology-push strategy seems to involve resource-intensive activities in order to get access to the market while market-pull strategy seems to strongly link to incremental innovation [6].

Level of Innovativeness

Innovativeness can be described as the firm’s capability to present new ideas, products, or processes to the business [3]. Previous study argues that learning orientation, together with market orientation and entrepreneurial orientation are antecedents of a firm’s innovativeness, which in turn, related to its business performance [4].

METHODOLOGY

Based on the previous literature, the authors proposed the Origin-Strategy Mixes (OSM) model to help identify possible mixes and explain the relationships as depicted in Figure 1 below.

The authors proposed that there is a causational direct effect relation between origin-strategy mixes and level of product innovativeness. Depending on the possible mixes of the entrepreneur origin and selected firm’s innovation technology, the authors projected that the level of innovativeness will be varying from low, medium and high as described in the origin-strategy mixes matrix in Figure 2.

From the OSM model and matrix, the authors proposed four propositions for each possible mix below.

Proposition 1: Entrepreneurs with opportunity entrepreneurship origin and technology-push strategy will have high level of innovativeness in their products

Proposition 2: Entrepreneurs with opportunity entrepreneurship origin and market-pull strategy will have medium level of innovativeness in their products

Proposition 3: Entrepreneurs with necessity entrepreneurship origin and technology-push strategy will have medium level of innovativeness in their products
Proposition 4: Entrepreneurs with necessity entrepreneurship origin and market-pull strategy will have low level of innovativeness in their products.

The underlying logical explanation for the above propositions is that in each possible mix, an entrepreneur has to balance out between his or her entrepreneurship origin mindset and the innovation strategy he or she selected. The authors speculated that opportunity entrepreneurs are more prone to taking risks in order to accomplish their goals and thus they are more encouraged to launch new products or try out new processes than necessity entrepreneurs. Similarly, the entrepreneur who elected to employ the technology-push innovation strategy are more likely to present new products or utilize novel production processes due to the need to exploit the firm’s possessed technology while entrepreneur who selected market-pull innovation strategy are more likely to respond only to specific market segment and thus are more risks avoidance.

This results in different anticipated level of product innovativeness in each possible combination. The authors expected high level of product innovativeness in the case of opportunistic entrepreneurship and technology-push innovation strategy mix. Both cases of opportunistic entrepreneurship and market-pull innovation strategy mix and the case of necessity entrepreneurship and technology-push innovation strategy mix were expected to have medium level of innovativeness. The case of necessity entrepreneurship and market-pull strategy mix was expected to have low level of innovativeness.

This study commissioned case study research method to apply the OSM conceptual model with three cases of Thai organic-based agro-preneurs. The case study process is
described as an empirical examination that inspects a current phenomenon within its real-life context, when the boundaries between concerning phenomenon and context are not obviously manifest, and in which several sources of evidence are utilized [8].

A set of ten semi-structured questions was created based on the literature to capture the interested constructs, the entrepreneur origin, the firm’s selected innovation strategy and the level of product innovativeness. The questions were validated and revised based on an expert’s comments and opinions. Three Thai agro-preneurs were then selected from a list of organic-based agro-preneurs using purposive sampling method. Each of the nominated agro-preneurs was contacted and requested for an interview for a length of about three to four hours. After getting the consents of all three agro-preneurs, the authors then arranged the meetings and conducted all the interviews using the instrument created.

As this study employed a narrative approach, during the interview process, all the agro-preneurs are free to answer the questions without any limitation as all the questions are typically asking them to tell the interviewers their “stories” than seeking predetermined answers. The process continues until the agro-preneurs had answered all ten questions. The recorded conversations were then transcribed and analyzed by the authors to order to categorize each agro-preneur’s OSM and level of product innovation.

RESULTS AND DISCUSSIONS

The finding results from the analysis of the interview processes are presented in a case-by-case format below. As the authors are not authorized to disclose the three agro-preneurs and their firms’ identities, Firm A, Firm B and Firm C are used to represent the three agro-preneurs’ firms below.

Firm A

Firm A is a producer, retailer and exporter of organic food products. The interview analysis shows that the Agro-preneur of firm A is an opportunity entrepreneur who resigned from a secured job position from a well-known multinational corporation to start his own business just after he noticed an opportunity in agro-industry sector. Firm A selected technology-push strategy and is highly active in research and development of its products and productions process. Firm A also frequently launches new products with moderate to high uniqueness to the market. The agro-preneur’s reasoning
for such aggressive strategy was that Firm A want to test the market reception for the products or production process exploited from its owned technology. The authors concluded that Firm A has a high level of product innovation.

**Firm B**

Firm B is a producer and retailer of climate regulated organic produces. Firm B also has an organic-based café and an integrated agro-tourism business. The interview analysis shows that the agro-preneur of firm B is a necessity entrepreneur who had to inherit his family business from his parents just after he graduated from a university. Firm B selected technology-push strategy and greatly invests in research and development of its products and production processes to response to its market segment demands. Firm B only launched new products or adopted new processes only when it was certain of the market receptions. The authors concluded that Firm B has a moderate level of product innovation.

**Firm C**

Firm C is an organic-based food products producer and exporter. The interview analysis shows that the agro-preneur of firm C is a necessity entrepreneur who decided to create her own business due to many intolerable situations at her previous workplace. Firm C selected market-pull strategy and focused mainly on further satisfying their current customers’ demands. Firm C took quite a considerable amount of time to launch new or improved products since it mainly focused on its current market acceptances. The authors concluded that Firm C has a low level of product innovation.

**Limitations**

Due to many constraints, the authors were not able to find a proper agro-preneur to represent the opportunity entrepreneurship origin and market-pull strategy mix. This results in the fact that there is no data available to be analyzed for proposition 2. Albeit the incompleteness, the result findings from the three available mixes exhibited expected results respective to all the proposed in propositions, except for proposition 2.

From the analysis of the interview data, the authors presumed that, in all of the three agro-preneur cases, their entrepreneurship origin and selected innovation strategy
mixes appears to directly influence their firms’ levels of product innovativeness. The finding results from the interview analysis are illustrated in Figure 3.

CONCLUSION

Preliminary results from this study, albeit the absent of one possible combination of the OSM cases, suggested that entrepreneurial origin and firm’s innovation strategy mixes do discordantly affect levels of product innovativeness in all three Thai agro-prenuers cases. The above finding contributes initial academic understanding on the importance of the influences of OSM on firm’s level of product innovativeness. This discovery can be exploited to improve the competencies and increase the competitiveness of agro-prenuers in Thailand. For instance, practitioners such as government incubators and other related entities could provide personalized training programs and supports tailored to each individual agro-prenuer based on his or her OSM mix.

The main constraint of this study is that only three agro-prenuer cases in Thailand were investigated. To address this, future research should emphasize on a larger sample size to improve the generalization ability. The authors also strongly encourage the use of quantitative research to further verify the OSM model.

ACKNOWLEDGEMENT

The authors would like to express sincere thanks to the three agro-prenuers who kindly agreed to be interviewed and contributed their valuable information for this study.
References


