

# GUIDELINES FOR SUSTAINABLE COMPETITIVE ADVANTAGE OF FOOD PROCESSING INDUSTRY IN THAILAND

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## Abstract

This research was to study the ways to create a sustainable competitive advantage in the food processing industry in Thailand. The research instrument was a questionnaire with a sample of 300 entrepreneurs in the food processing industry in Thailand. The research results showed that the factors of entrepreneurial characteristics were of a high average. The second was knowledge management factor and innovation capability factor, for the study of the influence between variables, it was found that knowledge management factor. The entrepreneurial character factor and the innovation capability factor positively influence the competitive advantage. These factors enable the food processing industry in Thailand to compete effectively and grow sustainably.

**Keywords:** Knowledge Management, Entrepreneurial Characteristics, Innovation Capabilities, Competitive Advantage

## INTRODUCTION

Thailand is a developing country to a developed country by 2032, where the population must earn more than \$12,746 per person per year to achieve that goal. It is necessary to define a clear target industry and there are supporting measures to incentivize the investment of leading companies from around the world to invest in Thailand. In order to enhance the country's competitiveness, it is necessary to develop potential industry groups, especially the food processing industry. Because it is an industry that is important to Thailand at a high level. Because it is the industry that uses the greatest number of workers has the highest investment value has the highest added value and has the highest investment in research and development among the various fields of the Thai manufacturing industry (Office of industrial economics, 2017) This makes the industrial sector one of the key mechanisms that will lead Thailand towards the development and enhancement of strong and sustainable competitiveness by creating strengths for the Thai industrial sector due to Thailand's competitive advantages. The availability of a wide range of quality agricultural raw materials, highly skilled workers, and the use of technology and innovation to increase efficiency in line with international standards. It also promotes environmentally friendly and energy efficient production, which enables lower cost raw materials and easier access to new regional markets, which these strengths can be built upon advantages in ASEAN Economic Region (Ministry of Industry, 2016)

Therefore, Thailand has become a new industrial country that must focus on creating competitive advantages by focusing on knowledge management. Innovation capability and entrepreneurial attributes because it creates added value for the organization in the long run and increases the efficiency of resources within the organization that are considered valuable assets to have the ability to operate effectively. (Ghasabeh, 2017) Therefore, if entrepreneurs

have managerial skills, leadership qualities and creativity, they will help develop organizations to be able to respond quickly to changes that occur. As a result, the organization is a cost leader with profitability. In addition, innovation capability is a key factor in driving the industry as it is a strategy that focuses on product transformation. Marketing and processes to apply new and modern techniques or methods in the organization that lead to the development and improvement of management processes from the old to the new one. Based on such importance, the researcher is interested in researching on ways to create a sustainable competitive advantage in the food processing industry in Thailand.

## **OBJECTIVE**

1. To study the structure and operating characteristics of the food processing industry in Thailand.
2. To study the composition of the approach to creating a sustainable competitive advantage of the food processing industry in Thailand
3. To develop a structural equation model for sustainable competitive advantage in the food processing industry in Thailand.

## **THEORY OF RESEARCH**

### **Knowledge Management**

An organization can create added value effectively if there is appropriate knowledge management systematically so that all employees in the organization have equal access to knowledge, especially knowledge and expertise appropriate to the position of the organization to achieve goals. In terms of operations, the goal of human development is achieved and achieve organizational development goals to create competitive advantages. Therefore, knowledge management for organizations can take many forms, such as knowledge arising from reading, training practice or arising from the exchange of experiences and arising from the sharing of knowledge between people in the organization resulting in employees to perform tasks effectively. At the same time, employees in the organization must work together to create new knowledge to occur and to transfer knowledge amongst themselves to help fix the shortcomings and support the organization to have more strengths, which will help to learn together throughout the organization to increase work efficiency and help develop all personnel Levels to quality and standards make the organization more competitive (Bhaskar and Mishra, 2017). In addition, organizations with diversified knowledge have a positive effect on the financial performance of the organization (Malik and Garg, 2017) because effective knowledge management can respond well to changes in the internal and external environment, helping to detect and correct errors that occur in the organization. Develop the potential of the organization resulting in new innovations. Diversity is a skill necessary for successful operations, therefore effective knowledge management arises from good organizational management to achieve continuous learning (Qi and Chau, 2018). In addition, many organizations use knowledge management processes as a measure of organizational

effectiveness for increasing organizational growth opportunities in the future (Ghasabeh, 2017), because partial knowledge management is insufficient to meet diversity of changes in the organization, it is necessary to have learning together throughout the organization and many organizations have applied knowledge management factors to create a competitive advantage by giving priority to knowledge management in knowledge sharing. Because employees in the organization exchange information with each other to help each other develop quality work. Having the skills and expertise to practice appropriate to the position to help reduce operational errors and develop the organization to be ready for future competition can lead to research hypotheses as follows:

H1: Knowledge management has a direct influence on competitive advantage.

H2: Knowledge management has a direct influence on innovation capability.

### **Innovation capability**

The concept of innovation capability is very popular because it is an important factor that directly affects the competitive advantage of the organization because innovation arises from using knowledge and ideas to develop new things, not caused by plagiarism or reproduction, in other words, innovation is creation of new products or technologies that enable the organization to adapt to sustainable competition. In addition, innovation is a key element that creates a competitive advantage and affects performance in market share (Horsthuis, 2016), despite their cultural differences (Cavanagh et al. al., 2017). Thus, innovation capability can take many forms, such as product innovation capability. Market innovation capability Process Innovation Capabilities Behavioral Innovation Capabilities and strategic innovation capability these factors resulted in the organization's success in sales growth have the ability to make a profit. To be the leader in market share at the same time, developed and developing countries attach great importance to innovation and use it as a tool to create official advantages. Innovation also includes the processes of creation, production and services that are new or refurbished to create competitiveness of the organization (Sawangrat, 2020), the target customers appropriately, there is also an important factor that helps to improve the quality of service to be more efficient (Nazlina, 2016). Therefore, innovation is the key to organizational advancement and economic growth. It can create people with quality, operational skills, and the ability to use technology problem solving skills Create a learning society and having creativity, work without copying can lead to research hypotheses as follows:

H3: Innovation capability directly influences competitive advantage.

### **The character of an entrepreneur**

The character of an entrepreneur is an important cog that drives the organization to survive by using the past experience to develop the organization to be successful through an innovative approach to focus on efficiency. Systematic planning and organizational management skills to help develop the organization to be able to respond to changes that occur quickly, resulting in the organization's operational efficiency. It also results in the organization's strategy to achieve the goals and also improves financial efficiency (Jin Jung & Jeong, 2018). Therefore, the aim

of entrepreneurship, in addition to profits that reflect the growth of the organization, also It is important to focus on setting strategies, adjusting strategies according to environmental changes as both factors affect competitive advantage. Hutahayan (2019) In addition, the characteristics of a good entrepreneur must be a person Be creative with the introduction of new technologies in the production process, as well as the use of modern management systems to make the organization efficient. As well as improving the work process from the original form to a new one that is modern and importantly, the organization will create competitive advantages that must focus on the management of the entire organization system standardized, especially in learning, to develop ideas, lead to organizational innovation and to encourage collaborative learning through open thinking, participation in planning, cooperate with the organization to achieve the organization's objectives. Therefore, the traits of a leader should be learning, disseminating and applying knowledge to promote the organization as a continuous learning organization. Although they differ in culture (Cavanagh et al., 2017) to create competitive advantages, create added value and create organizational innovation (Soomro et al., (2020); Zhao et al., (2020) can lead to the following research hypotheses:

H4: Entrepreneurial qualities directly influence innovation capability.

H5: Operator's qualifications have a direct influence on competitive advantage.

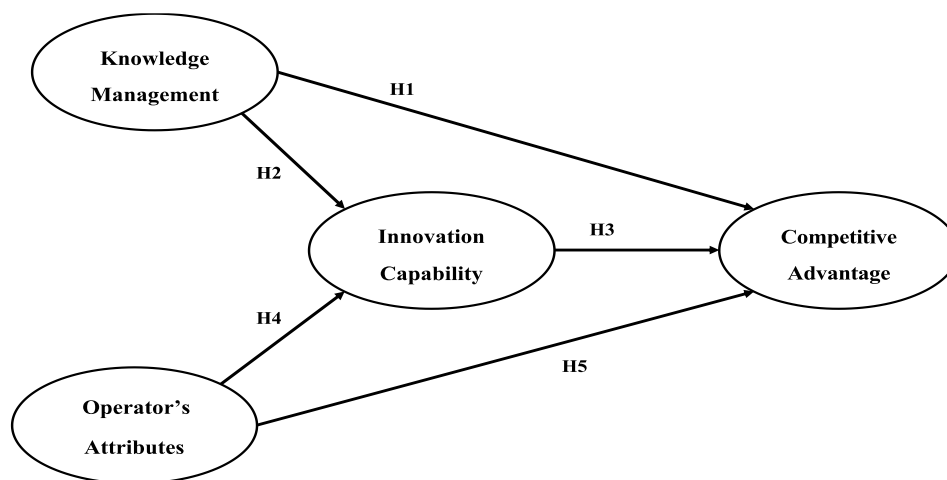
### **Competitive advantage**

Creating a competitive advantage is an important tool of strategic planning that makes it impossible for competitors to imitate. Cost leadership strategy to build profitability. By considering both internal and external environments in order to be able to choose appropriate strategies for goods and services and differentiation strategies by considering the vision that sets the standards and policies of the organization. Outstanding excellence and a link between the past and future success. In addition, the organization must consider the growth rate of the industry, if the industry has a high growth rate, the competition is also high. Including considering the bargaining power of raw material suppliers for estimating the cost of producing goods if the raw material is high, resulting in the product having a high price as well and causing customers to turn to other products instead, in order to reduce such obstacles as a result for the organization to be highly competitive, the organization must develop work processes to be ready for the whole system with effective management. Therefore, business operations, whether faced with more or less obstacles, organizations must adapt to find a strategy that is suitable for creating competitive advantages (Kankam et al., 2019). It presents valuable differentiation for customers to meet their needs effectively, and the key to organizational goals is to have employees who perform efficiently, perform at their best, and have appropriate working practices, continual learning and ability to resolve obstacles while working is a factor that contributes to the organization's operational efficiency (Ayodeji, 2019). Competitive advantages result in the organization's success in sales and performance as well as the organization has a plan and five data to be used for planning an appropriate marketing strategy, as a tool to create confidence. Relationship with customers and maintain consistent service standards, which creates a competitive advantage that competitors cannot imitate. It is an effective way to create organizational stability while measuring competitiveness can be

measured in many dimensions and no other method is suitable. Therefore, it depends on the purpose to be used. To create stability for the organization leading to sustainable competition (Safiia, 2019).

### Framework

Figure 1: Research conceptual framework



## METHODS OF CONDUCTING RESEARCH

### Population and sample

The population used in the research was 9,102 food processing industry operators in Thailand registered with the Ministry of Industry (Ministry of Industry, 2020). The sample size was determined according to the Yamane formula (1973). The population size was determined (N). A total sample size of at least 354 enterprises was obtained for the sample size criteria of Comrey and Lee, (1992). Appropriate for structural equation model analysis, 300 samples were considered good (as a good), so the researcher chose to determine the sample size of 300 enterprises using Probability Sampling.

The research instrument was a questionnaire divided into 3 parts.

Part 1 is a questionnaire about general information. The nature of the questionnaire is a Check List of 5 items.

Part 2 Questionnaire on knowledge management the characteristics of entrepreneurs in terms of innovation capability and the competitive advantage of 80 items, the questionnaire is a Rating Scale, which has the criteria to give the weight of the assessment at 5 levels according to the Likert method

Part 3 is the recommendation. Tool building and tool quality check Create a tool by studying the principles of questionnaire construction in accordance with the research conceptual framework and study data from books, documents, articles and related research results as a

guideline to create questions and quality inspection tools consist of 1) Content validity by 3 experts, the IOC (Index of item objective congruence) index was between 0.60-1.00, which is greater than 0.50, passed the benchmark and had high accuracy (Rovinelli & Hambleton, 1997, 2) Reliability: Pre-Test of 30 questionnaires (non-sample) were used to find Cronbach's alpha coefficient, which was between 0.725-0.939, which is greater than 0.70 passed the benchmark and had high confidence (Nunnally, 1978).

Statistics used in data analysis Data were analyzed with descriptive statistics by the method of determining the frequency Then sum it up as a percentage, for the 5-level estimation scale, the mean method is used and the standard deviation, the open-ended questions enable content analysis and are summarized as frequency and analysis of structural equation models using multiple statistics. (Multivariate Statistic) with Structure Equation Model: SEM by using advanced statistical analysis program AMOS and using evaluation criteria including CMIN-p is greater than .05, CMIN/DF is less than 2, GFI is greater than 0.90, RMSEA is less than 0.08 (Arbuckle, 2012).

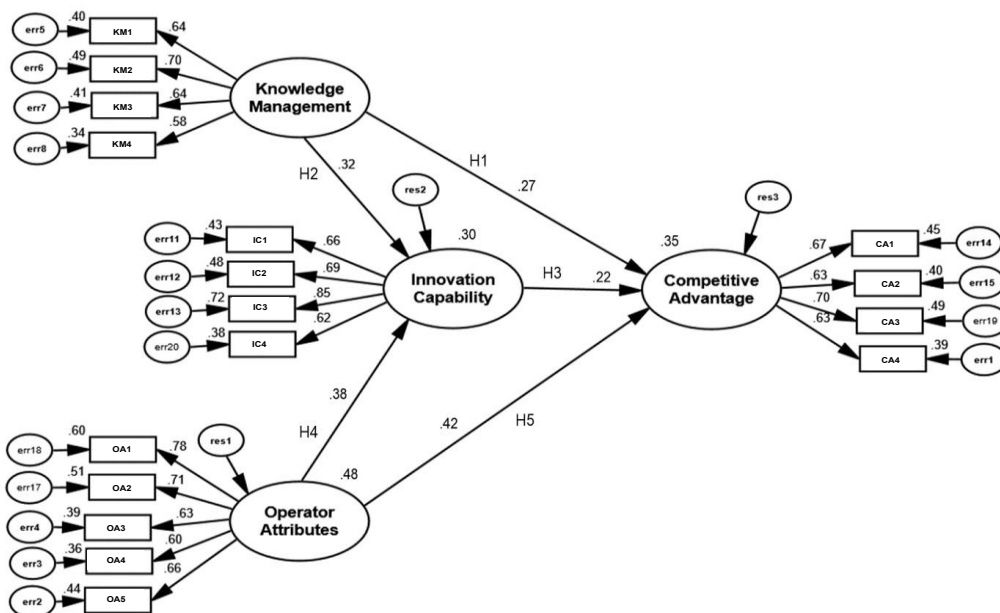
## SUMMARY OF RESEARCH RESULTS

An analysis of the general characteristics of the organization found that the food processing industry had the longest operating period of 10-20 years (42.50%), with the most investment business model by Thai people (44.10%). The most used to support the business came from financial institutions (43.20%), with the organization located in Bangkok and its vicinity (56.40%), and the type of business establishment as a limited company (55.00%). An analysis of the importance of elements of sustainable competitive advantage in the food processing industry in Thailand It was found that the value was at a high level ( $\bar{x} = 3.53$ , S.D = 0.47). Considering each aspect, it was found that the operator's characteristics were at a high level ( $\bar{x} = 3.89$ , S.D. = 0.56), followed by is the side Knowledge management ( $\bar{x} = 3.86$ , S.D. = 0.59), followed by innovation capability ( $\bar{x} = 3.79$ , S.D. = 0.54) and competitive advantage ( $\bar{x} = 3.77$ , S.D. = 0.60).

For the results of the structural equation model analysis, guidelines for creating a sustainable competitive advantage in the food processing industry in Thailand. It was found that the probability level of the chi-square value (CMIN-p) was .146 greater than 0.05, indicating that the model was not statistically significant. The Level of Consistency Index (GFI) of .998 is greater than 0.90. The correlation chi-square (CMIN/DF) is 1.682 less than 2.00, and the root index of the squared mean of the error estimation ( RMSEA) is .066, is less than 0.08, so it can be concluded that all 4 statistics passed the assessment criteria, consistent with empirical data the results were as follows:



**Figure 2: The results of the analysis of the structural equation model of the approach to creating a sustainable competitive advantage in the food processing industry in Thailand**



**RESEARCH OF HYPOTHESIS**

**Table 1: Hypothesis test**

Hypothesis	Result
H1: Knowledge management has a direct influence on competitive advantage.	Accept
H2: Knowledge management has a direct influence on innovation capability.	Accept
H3: Innovation capability directly influences competitive advantage.	Accept
H4: Entrepreneurial qualities directly influence innovation capability.	Accept
H5: Operator's qualifications have a direct influence on competitive advantage.	Accept

**CONCLUSION**

The approach to creating a sustainable competitive advantage in the food processing industry in Thailand arises from the organization seeking knowledge from internal and external agencies, as well as consulting experts when there is a problem in order to find the root cause of the problem. It takes place within the organization and systematically manages knowledge, consistent with research by Bhaskar and Mishra, (2017). Organizations with modern and efficient knowledge collection systems increase their competitiveness. It also helps to drive organizations to achieve sustainable growth and a study by Malik and Garg, (2017) found that organizations with dissemination of knowledge and diverse approaches to knowledge management allow everyone to access knowledge and Developing themselves to be

knowledgeable will result in efficient operations (Sawangrat, 2020). In addition, entrepreneurs have focused on setting a common vision throughout the organization and having flexible management for employees. Work with peace of mind, consistent with a study by Trang (2018), found that building a good relationship between entrepreneurs and employees affects overall organizational performance and is a factor. It is important to create a sustainable competitive advantage. In addition, entrepreneurial characteristics, directly and indirectly affect the creation of competitive advantages and are also an important factor in access to scarce resources and entrepreneurs with leadership characteristics, knowledge of management principles. Good management, having the skills in systematic planning and having clear work procedures, the ability to develop work processes from the old to the new for the organization to achieve operational success (Adel and Habib, 2018) and Abdo Ali Homaid et al., (2018), consistent with the research by Pitchayadol et al., (2018), found that the improvement of the old work system to the new model resulted in employee performance. Tasks are accomplished quickly and also generate organizational innovation for a competitive advantage, while a study by Cantaleano et al., (2018) found that entrepreneurial attributes contribute to organizational success. Sales and performance, and there are many industries that have adopted innovations to manage the work system to be standardized as the same system throughout the organization. In addition, the organization encourages employees to have the ability to use a variety of technologies to bring new innovations to decision-making and to assist in production planning in order to create a sustainable competitive advantage (Sawangrat, 2020).

## SUGGESTIONS

Suggestions obtained from research to guide entrepreneurs to see the importance of creating a sustainable competitive advantage of the food processing industry in Thailand, for organizational knowledge management should study 4 more areas, consisting of Systematic thinking, individual competence, training, and knowledge collection to develop people, develop jobs and develop the organization to be ready for future competition for innovation capability Organizations should study three more areas, namely technological innovation capability, management innovation capability, and service innovation capability to create better value for the organization and be a key mechanism in driving Thailand's economy towards world market Next is the characteristics of entrepreneurs. The organization should study 3 more areas, consisting of consistency keen on learning being yourself. Because such factors will help the organization to grow steadily under the changing of the unstable competitive environment and competitive advantages. Organizations should study 4 more areas, including financial perspectives, customer view perspective on internal processes and profitability in order for the organization to compete effectively with other industries. Suggestions for next research Government agencies should formulate a policy to adjust the structure of traditional production to production that focuses on innovation that can be further developed. To add value to reduce costs. In addition, it is advisable to cooperate with educational institutions in establishing laboratories for research and development of environmentally friendly products with competitive production costs. The innovative technology is applied in the production process to meet the needs of the target market both now and in the future and the conceptual framework



from this research should be studied with other industry groups to compare the differences different and used as a guideline for organizational development to create competitive advantages in the world market.

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