**The Innovation Model for Small and Medium Enterprises in Thailand**

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**Abstract:** This research aimed to 1) to study the elements of the innovation model for small and medium enterprises in Thailand 2) to develop the model of the innovation model for small and medium enterprises in Thailand. There are 3 steps of research: 1) study documents and related research. 2) Develop a model for the innovation of small and medium enterprises in Thailand with questionnaire from manager of small and medium enterprises 400 persons 3) analyzed the elements of the development pattern of the innovation model for small and medium enterprises in Thailand by analyzing the elements; The statistics used for data analysis were percentage, range, quartile, mean, standard deviation and elemental analysis. Research findings showed that 1) The study of the innovation model for small and medium enterprises in Thailand found that it consisted of 3 important components: product innovation, process innovation, market innovation of the innovation model for small and medium enterprises in Thailand. 2) Development of the innovation model for small and medium enterprises in Thailand found that there are 5 main components: dynamic capabilities, market orientation, intellectual capabilities, innovation, competitive advantage. The innovation model for small and medium enterprises in Thailand overall and the aspects are good.

**Keywords:** School Administrators, Office of the Basic Education Commission, Model Development, Thailand 4.0

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# 1. Introduction

Small and medium enterprises are very important to the Thai economy. Because it is the business with the largest volume in the Thai economy Most of the small and medium enterprises are small businesses, more than 60% of the country's enterprises. Which these small enterprises are scattered in various provinces All over Thailand Therefore, small and medium enterprises are important to the economy of each province as well. Not only will it help make the economy of each province good it is also creating jobs, creating occupations and generating income for the community and people in the community in the province. Make the community and the people in the community earn income. Better livelihoods, employment, and can also help reduce labor migration problems within the province. It can be seen that small and medium-sized enterprises are very important to the community and their community members [1], and therefore should be promoted and developed for the operation potential of small enterprises. Medium and small to be able to continue business and grow more. But in the past, there have been many problems in the operation of small and medium enterprises. One of the main problems for small and medium-sized enterprises is the problem of adaptation to the environmental factors conducive to the business operation of small and medium enterprises so that their businesses can survive not only in a short period of time. But still have to be able to survive for a long time as well by relying on the resources that exist within the business and create opportunities for businesses to be successful in operating in accordance with the changing circumstances today.

This research therefore uses the concept of dynamic capability. This is a concept that pays attention to adaptation and change under the external environment affecting the business. Allowing businesses to adapt and survive by focusing on capacity building from the use of resources and capabilities within the business to adapt to the environment. In which businesses will have to continually adjust Asset and ability to cope with changing environments are defined and adjusted [2], which is the foundation for creating a competitive advantage [3] for the organization's success. Businesses can survive [4] the dynamic capacity development concept is a concept that complements the lack of a resource base concept aimed at monopolizing individual resources, finding opportunities and adapting. Transforming Future Capabilities [5] to Targeted Resource Alignment Both internal and external business resources [6] by leveraging in-house resources and capabilities [5] by linking business capabilities embedded within the organization. Integration between internal and external business competencies [7] in line with the changes of the external environment. By searching for opportunities And combine resources and knowledge To transform into a new capability [6], it will affect the value of the business and the performance of the organization [7], allowing the business to continue to survive and grow [8], which could be created by the need for innovation and transformation [6] to provide better product or service satisfaction for customers than competitors [3] and from past literature. Dynamic capability has been tested to influence operational ability. It is a strategy used to create value for the organization. [9], in line with the ideas of Salunke et al. [10] and Cepeda & Vera [11], affirm that dynamic capacities are linked to corporate profitability and growth. Especially in the small and medium-sized enterprise business that needs to be adjusted to survive the change, which the problems of the enterprise Medium and small in Thailand are important. Lack of business planning in order to increase the business adaptability. Lack of factor analysis skills and most small and medium enterprises do not realize the importance or do not know how to integrate knowledge to manage the competitive advantage of their own business. As a result, the operating performance is in a bad level as it should be. And in the end, entrepreneurs had to liquidate their business shortly after starting their operation.

From the theoretical concepts of various scholars and researchers The literature reviews were used in studies of dynamic capacities such as [5], [12], [13], [7], [14] from the competence of factors within business and it is a theory that has been proven theoretically by widespread scholars of Source of dynamic capacity building By leveraging in-house resources and competencies [5] to understand the importance of dynamic competencies and the results of dynamic capacity development in innovation and performance. Of business to develop the foundational potential of the community business to be able to operate the business sustainably, generate income and employment for people in the community and society to prosper. Well-being and it also enhances the well-being of the people in society as well.

# 2. Research Objectives

The research methodology involved the development innovation of small and medium enterprises in Thailand and aimed to study the elements of the innovation model for small and medium enterprises in Thailand and to develop the model of the innovation model for small and medium enterprises in Thailand.

# 3. Research Methodology

# 3.1 Research Design

This study was a quantitative research carried out by the following procedures:

1) Study the empirical data that can be applied to all areas to check with the theoretical framework set forth by the researcher based on the principles, concepts and theories to get the findings on key issues.

2) The researcher collected data using a questionnaire with business owners, managers, supervisors or related employees of SMEs in Thailand.

# 3.2 Key Informants

1) The area of this study was to study of Small and Medium Enterprises in Thailand towards using developing the innovation model.

2) We determine sample sizes that are suitable for data analysis with the LISREL program by using the Structural Equation Modeling (SEM) statistical technique. The sample size must be 20-10 for each variable in the research. So the sample size should have 300 (Angsuchote et al., 2015).

3) The researcher used multistage random sampling method because the population in the study was large.

# 3.3 Research Tool (Focus Group Discussion)

The innovation model in this research by questionnaire. The creation of research tools:

1) Studied the related theoretical and literary concepts to define the operational definition and structure of the variables the researcher want to study.

2) Created a questionnaire based on the operational definition that the developer of the instrumentation and the questionnaire has been improved to fit the research.

3) Brings the questions that have been developed to the experts to examine the content validity of the questions from the study of related theoretical and literary concepts.

4) Modified the questionnaire to produce a draft questionnaire.

5) Test validity by using the questionnaire developed by the researcher for 5 experts to find the index of correspondence between the question and the objective.

6) The reliability of the questionnaire was tested by 30 participants is not a research sample.

# 3.4 Data Analysis

The researcher has conducted statistical analysis that is appropriate and consistent with statistical data to meet the purpose of the research set. The statistics used to analyze the data are descriptive statistics, pearson's product moment correlation coefficient and Structural Equation Models (SEM).

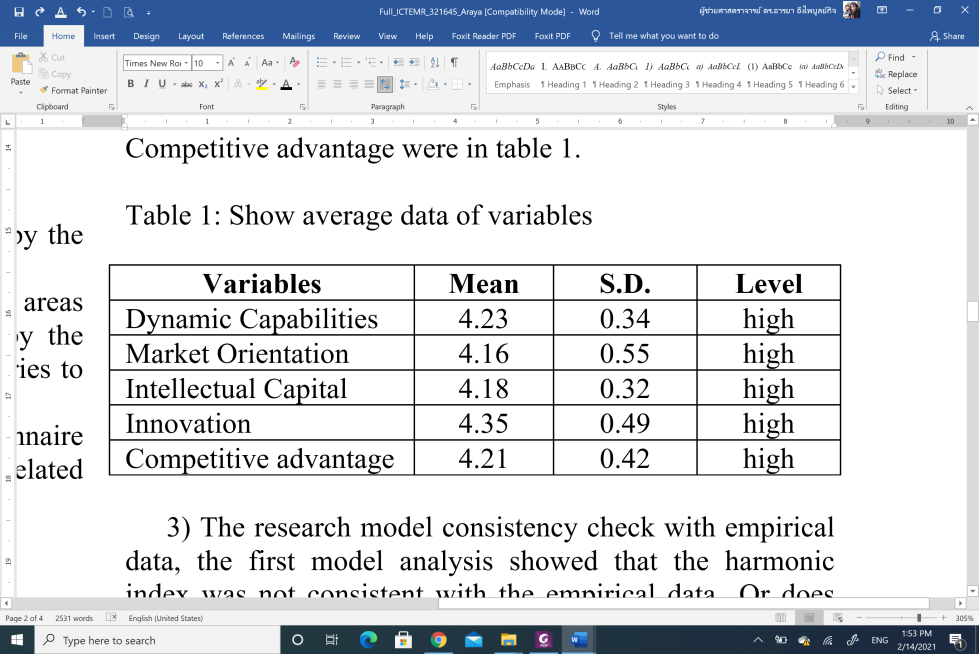
# 4. Research Results

The findings indicates that researchers divided the topic into five parts, with the details as follows.

1) General information of the respondents; Most respondents are female. 51.64%of them are 50-59 years, 37.86%of them have experience of working 5-9 years.

2) Average Data of Variables; Dynamic Capabilities, Market Orientation, Intellectual Capital, Innovation and Competitive advantage were in table 1.

**Table 1:** Show average data of variables



3) The research model consistency check with empirical data, the first model analysis showed that the harmonic index was not consistent with the empirical data. Or does not meet the criteria set. Some important stats. Not yet meet the criteria set. The researcher then proceeded to modify the model by adjusting the parameters by agreeing to relax the initial agreement for the relative error. For Analytical results, after the model was modified, the model was found to be in harmony with the empirical data, with the six harmony indexes that met the acceptance criteria. The index values ​​χ2 / df = 0.276, CFI = 0.999, GFI = 0.99, AGFI = 0.97, RMSEA = 0.000 and SRMR = 0.000. In harmony with the empirical data.

4) Route Analysis Results

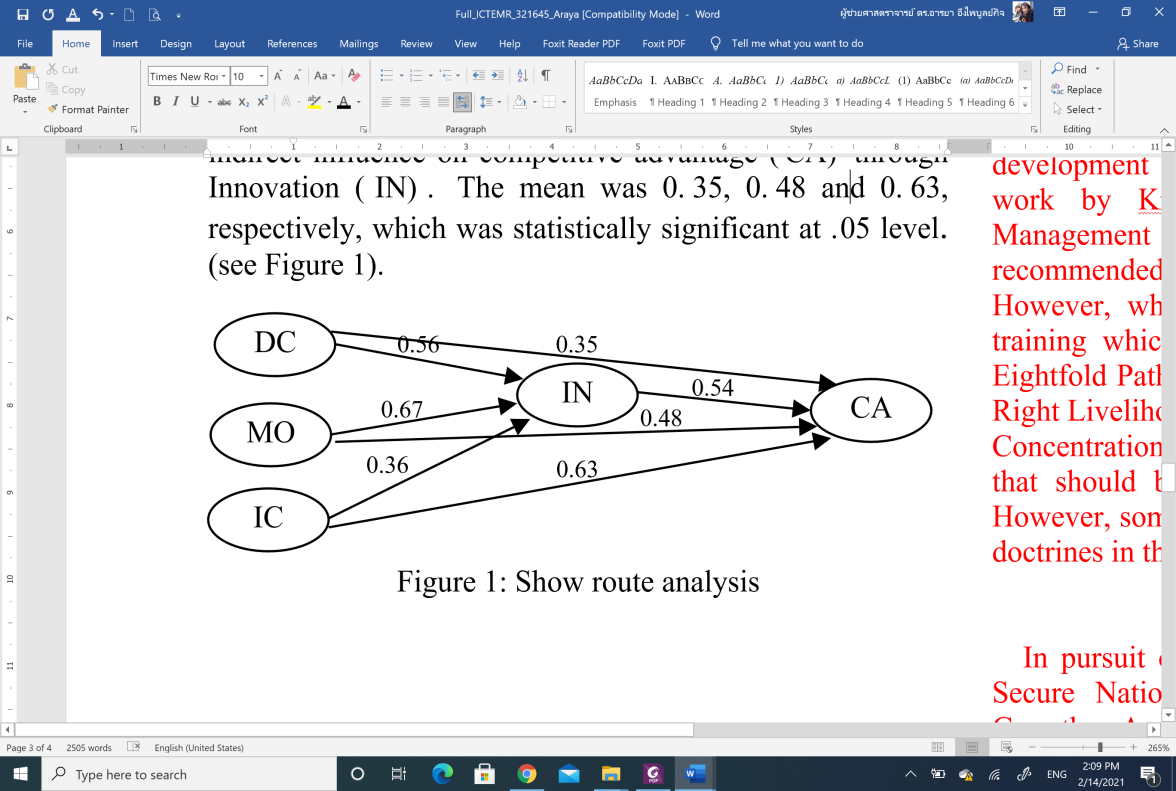
4.1 Dynamic Capabilities (DC) has a direct positive influence on the innovation of the business (IN), with a direct magnitude of 0.56 which is statistically significant at .01 level.

4.2 Market Orientation (MO) has a direct positive influence on the innovation of the business (IN), with a direct magnitude of 0.67 which is statistically significant at .01 level.

4.3 Intellectual Capital (IC) has a direct positive influence on the innovation of the business (IN), with a direct magnitude of 0.36 which is statistically significant at .05 level.

4.4 Innovation (IN) has a direct positive influence on the competitive advantage of the competitive advantage (CA), with a direct magnitude of 0.54 which is statistically significant at .05 level.

4.5 Dynamic capabilities (DC), market orientation (MO) and intellectual capital (IC) and have a positive indirect influence on competitive advantage (CA) through Innovation (IN). The mean was 0.35, 0.48 and 0.63, respectively, which was statistically significant at .05 level. (see Figure 1).



**Figure 1:** Show route analysis

# 6. Discussion

The results show that dynamic capabilities, market orientation and intellectual capabilities influence on innovation and the innovation influences the competitive advantage. At the .01 level, the results of the research were in line with the two objectives. The results were as follows.

1) Dynamic capabilities has a direct influence on the innovation. This is due to the ability to express opinions towards business women over time, and changing the competence of business [4]. Having a family, come to learn and know how to build a new facility for you [13] by searching for and culture and knowledge for the purpose of creating a new facility for you. Adapted to a new competency method [6], [9] research studies the relationship of cognitive management and small and medium-sized performance digging, study findings found. This means that cognitive protection is used as a tool for work development and also finds a relationship between one another and performance. There is a cognitive correlation with the research of [15] studying the dynamics of mannequins. Discourse and Dynamic Characteristics a Case Study of China the results of the study found that the tuition fee of the tool was useful and important to the principle of dynamic competence. The study of the relationship between the dynamical characteristics and performance of the high heel shoes did not affect the ability to control ability at the same level and Wilden et al. [16] study to the dynamic effect on the performance of the latter was found that the performance of dynamic competence depends on the intensity of the competition the company faces, with Zhou & Wu [12] and Weerawardena & Mavondo [9], who say that the source of cognitive competence. Dynamic dynamics and competence by defining to help build business forts under a dynamic cultural landscape [17], [18].

2) Market orientation has a direct influence on the innovation. This is because these innovative organizations continue to develop innovation leadership positions based on their technological innovation. Not only to meet current needs but still able to meet new demands Of consumers as well, in line with the research of [19]. Factors Contributing to Innovation in Small and Medium Enterprises: A Case Study of the Gem and Jewelry Business The results of the research revealed that the external factors contributing to the innovation consist of 5 main components: 1) raw material suppliers 2) education sector 3) government sector 4) industrial sector 5) customers. On the components of factors that affect the innovation of the gem and jewelry business. This research can be applied to guide innovation planning. To enhance the quality of products and production processes Including various technologies In the industry to be more efficient And increase the competitiveness in a sustainable way In line with [20] has studied research on Guidelines for the development of innovative capabilities of small and medium enterprises in 5 southern border provinces: a case study of the food and beverage business group The results of the research were as follows: The development of SMEs' innovation capability is due to five important conditions: risk appetite. Network building aiming to Meet Market Needs Proactive business operations and corporate learning Taking risks leads to organizational learning and proactive business practice. As for creating a network, entrepreneurs have the risk. Focusing on meeting market needs results in proactive business operations and organizational learning. The study has resulted in a model describing the conditions that contribute to the innovation capability of SMEs in the southern border provinces. And like [21] study on business innovation development in the Thai-Cambodian border area the results of the research showed that the intellectual capital, the learning organization and focus on marketing Have a positive influence on innovation And innovation has a positive influence on the performance of a business. Business performance is influenced by intellectual capital. Learning organization and focus on marketing

3) Intellectual capabilities has a direct influence on the innovation. This is because businesses allow employees to use their creativity to lead new ideas. And take this initiative to create new products and employees are constantly developing new ideas and knowledge, enabling businesses to have new work ideas all the time. Business has adopted an integrated management system in serving customers as much as possible. This management system will help create and support innovative ways of working in business, having up-to-date policies, working methods, and databases. Can solve problems in a timely manner Employee competence can be achieved through the creation of partnerships with external organizations to increase the productivity of the business. And also promote teamwork of employees to be able to work together including diagnosing and solving problems together by the expertise of the employees Teamwork is also a great way to create good relationships between employees in the business, helping businesses create a competitive advantage. And help businesses have better operating results This is consistent with research by [22] that says intellectual capital is an indicator of value creation and an organization's competitive advantage. By measuring the efficiency of intellectual capital management as a key determinant of competitive advantage, it is consistent with [23], who said that in the 21st century, intellectual capital is a key asset to a business. Small and medium enterprises Success in a competitive business environment most businesses will be able to survive a fundamental need for intellectual capital. And want to study the role of intellectual capital in business entrepreneurs Small and medium enterprises to raise awareness about the use of intellectual capital that affects the performance of entrepreneurs and small and medium enterprises as well as

4) Innovation has a direct influence on the competitive advantage. This is because innovation is a new method, process or technology. That the organization developed for use in the organization and marketing The four components of the innovation It is a tool that enables organizations to gain a competitive advantage [24], in line with [25], who say that the influence of competitive advantage is driven by innovation. Like [26], innovation has a direct impact on competitive advantage. And technological and non-technological innovation leads to a competitive advantage. The operation of small and medium-sized enterprises can gain a competitive advantage through the use of innovation to create innovations to support potential changes. Demonstrate an organization's ability to innovate. It not only helps the organization survive. But there is still a need for organizational development [24] for the organization to thrive. Small businesses especially [27] Small and medium businesses need the ability to create new things. To achieve a competitive advantage [28], in line with the research of Yingchon [29], researched on automotive innovation at the SME level This research studies the innovations occurring within the automotive industry. The target group is SMEs entrepreneurs in the automotive industry. The results of the research were as follows: Most of the innovations that happen in small enterprises are through trial and error. Using past experiences And adaptation to the economic and social environment, sometimes resulting in innovations that help in doing business inadvertently, such as product price reductions, lead to low cost strategies Or the need to produce products to meet the needs of customers, resulting in a collaboration to create new products with customers, etc. When the business grows or enters into a medium-sized enterprise Entrepreneurs will start to develop more management ideas and use tools or innovations to help them raise standards and competitiveness, such as using operating systems to help analyze data and help decision making in production processes and Sell ​​products Using online media to help advertise products And setting up the logistics system to make the work process at every step more efficient And the research of Ketmanee et al. [30] studied the subject Competitive advantages of small and medium enterprise businesses in the era of Thailand 4.0 presenting guidelines for small and medium enterprises business development It should increase the learning ability within the organization and innovation ability. The learning skills of personnel should be developed continually until the personnel have knowledge. Improve personal skills until the acquired knowledge can be developed Related to the daily work processes that are responsible for these will affect the difference. Low cost to give businesses a competitive advantage.

# 7. Conclusion

The results show that dynamic capabilities, market orientation and intellectual capabilities influence on innovation and the innovation influences the competitive advantage. At the .01 level, the results of the research were in line with the two objectives

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