TRANSFORMATIONAL LEADERSHIP, ABSORPTIVE CAPACITY, AND ORGANIZATIONAL INNOVATION IN FOOD MANUFACTURING INDUSTRY IN THAILAND

Manuscript Submission Data: 2022, June 16
Article Editing Date: 2022, July 16
Article Accepted Date: 2022, July 30

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ABSTRACT

The purpose of this research was to verify the indirect effect of transformational leadership on organizational innovation through absorptive capacity. The questionnaires were developed from a review of the literature and led to devising variables to be applied to the data collection. The respondents were employees working in product and process development aspects in the firms. The number of samples in this research were 200 firms in food manufacturing industry and the PROCESS MACRO was used for analyzing the data. It was found that transformational leadership wielded an influence on organizational innovation, and absorptive capacity. In addition, the relationship between transformational leadership and organizational innovation was mediated by absorptive capacity and the absorptive capacity was a full mediator.

Keywords: Transformational leadership, Absorptive capacity, Organizational innovation.

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INTRODUCTION

The food industry is one of the major sectors of Thailand, which determined by the government to support for encouraging country economic growth. The policy of "Thai kitchen to World kitchen" has been operated for more than a decade, as part of the five year (2016-2021) strategic plan. This particular industry is critical to the economy, and it exports much to the world for people consumption. It is a great opportunity for SME entrepreneurs to do well as part of the supply chain. Each year, the food industry generates massive revenues for Thailand, increasing better incomes for the farmers who are considered the backbone of Thailand agricultural sector. By 2019, Thai food industry had increased by approximately 4.5%. Currently, research on organizational innovation, mostly focused on the benefits of innovation for many industries, but not the food industry in Thailand. Then, this study aims to fill in this crucial research gap by examining the factors that lead to better organizational innovation.

The firms in food industrial sector are crucial for the Thai economy from there serving of domestic and global demand. Those firms have linked business firms along the entire supply chain from agricultural sector, manufacturing component sector, logistics sectors, and export sectors. In considering innovation, it has been found by many studies that support advancement of overall business sector (Guo, Guo, & Ma, 2022; Pereira, Lohmann, & Houghton, 2022). To adopt innovation effectively, transformational leadership is a key determinant to specific firms in particular industry (Colovic, 2022; Yang, Luu, & Qian, 2021). However, a rarely studies have been conducted to the leadership style that may affect to innovation of the firms in food manufacturing industry in Thailand.

RESEARCH OBJECTIVES

This study purposes to clarify how transformational leadership style effect organizational innovation related to absorptive capability of the medium and large firms in food manufacturing industry.

LITERATURE REVIEW

Transformational Leadership (TL)

In the early stage of leadership study, the transaction or exchange of the behavior and benefit between leader and follower known as transactional leadership styles had been widely conducted to summarize the result of readership style. According to transformational leadership, this leadership style is an expansion of study continuing from transactional leadership to higher

level of leader behavior in organizations (İşcan, Ersarı, & Naktiyok, 2014). This leadership styles can create positive outcomes on both individual and organizational level, and support self-actualization and self-esteem of followers (Bass, 1985). Moreover, it motivates self-sacrifice and achievement of organization goals from personal interest. Transformational leadership is concerned with inspiration of leaders to followers to commit and shared vision for the achievement of particular organization, challenging followers to be innovative and developing them by coaching, mentoring, and provision both challenge and support (Bass & Riggio, 2006). In addition, Bass & Riggio (2006) identified the component of transformational leadership into 1) Idealize Influence (IL), 2) Inspirational Motivation (IM), 3) Intellectual Stimulation (IS), and 4) Individualize Consideration (IC). Several research explained the empowerment of transformational leadership styles will encourage innovative environment for employees and enhanced organizational innovation (Gumusluoglu & Ilsev, 2009; Jung & Sosik, 2002). In addition, it is crucial for leaders to apply inspirational motivation and intellectual stimulation to create organizational innovation (Elkins & Keller, 2003) and Darawong (2020) found the transformational leadership has positive impact on new product success for high innovativeness is stronger than for low innovativeness. Based on this, the following hypotheses are proposed:

H1: Transformational leadership has a direct positive influence on organizational innovation.

Absorptive Capacity (ACAP)

To create innovation, absorptive capacity is crucial in term of efficiency that firms can utilize knowledge from external in combination with internal capability. Cohen and Levinthal (1990) explained absorptive capability as the capability of an organization in absorption and applying new external knowledge to make an organizational achieve its goals. Through absorptive capacity, firms can access to relevant knowledge for superior performance deriving from organization innovation (Riquelme-Medina, Stevenson, Barrales-Molina, & Llorens-Montes, 2022). According to Lyles and Salk (1996), they explained the component of absorptive capacity as an understanding, accumulating, and applying of knowledge to organization. Similarity to Zahra and George (2002) explained more as absorptive capacity is dynamic capability concerning to development of competitive advantage separated into first, potential absorptive capability which composed of acquisition ability and assimilation ability. Second, realized absorptive capability composed of transformation ability and utilization ability. From the literature of transformational leadership and absorptive capacity, we considered the role of absorptive capacity as mediating role link to innovation. There are many evidences support the link between transformational leadership and knowledge of particular

organization that can be determined in term of absorptive capacity (Birasnav, 2014; Naqshbandi & Jasimuddin, 2018). Therefore, the following hypothesis is instructed:

H2: Transformational leadership has a direct positive influence on absorptive capacity.

In addition, the absorptive capacity can influence performance of specific firms that apply alliance portfolio characteristic with others (George, Zahra, Wheatley, & Khan, 2001) and Popaitoon, Yanpiboon, and Tapjarern (2020) found that in the established high-tech cases, realized ACAP plays an outsized role in developing new products. Therefore, the following hypothesis is instructed:

H3: Absorptive capacity has a direct positive influence on organizational innovation.

Organizational Innovation (OI)

The competitive advantage of firms has been proved coming from knowledge sharing and organizational innovation as key drivers (Azeem, Ahmed, Haider, & Sajjad, 2021). The success of an organization come from competitive advantage over competitors which derived from organization creativity and innovation in relation with value creation for customers (Woodman, Sawyer, & Griffin, 1993). Leader has been recognized as crucial to follower in their inspiration and value of an organization. To create value for their customers effectively, firms must offer the differentiation of products or process to customers. However, the most important factor concerning to differentiation is related with innovation launched into the market by firms. Innovation can be determined in term of an idea, practice, or material artifact found in a new and relevant unit of adoption (Limaj & Bernroider, 2019). Some researcher categorized innovation by mean of proximity and cognitive distance, the more difference, the innovation is (Jansen, Van Den Bosch, & Volberda, 2006). Then, innovation can be categorized as first, explorative innovation refers to radical innovations that are totally different from existing units in the market (Morgan & Berthon, 2008).

In creating of innovation in a particular organization, organizational innovation was considered as a key role to support innovation success. Organizational innovation was defined as implementing a new commercial practices involve new method and new operation for new existing products (Kalkan, Bozkurt, & Arman, 2014). It includes the dynamic of business operation, internal environment, and external relation (Walker, Chen, & Aravind, 2015). Furthermore, current study concerning to innovation created by organizations frequently associated primarily with technology, research and development, and new products development (Arranz, Arroyabe, Li, & de Arroyabe, 2019; Mol & Birkinshaw, 2009). Organizational innovation is crucial to management as the factor to support information exchange for collaboration of the employees and creating of innovation. According to organizational innovation in this study, the following variables were determined to product

innovation and process innovation. In considering organizational innovation, transformational leaders and followers engaged in the success of operational process of innovation creativity to synergize overall efforts on members concerning to increasing the intensity of innovation resulted in organizational performance (Hoai, Hung, & Nguyen, 2022). Thus, the transformation leadership is crucial in term of cultural development that has an impact on organizational innovation to sustainability of organizational performance (Samad, 2012; Shahzad, Xiu, & Shahbaz, 2017). On the contrary, some study found a significant negative relation while many presented a significant positive relationship. Therefore, this study places an endeavor to clarify the result of transformational leadership and its link to organizational innovation. Yaseen, Al-Janaydab, and Alc (2018) also discovered that transformational leadership style and transactional leadership style are antecedents to absorptive capacity and a firm's innovation. The results confirm a significant and direct relationship between both leadership styles and firm innovation, and indirectly via absorptive capacity in Jordanian Pharmaceutical sector. The transformational leadership was found significance to organizational innovation having knowledge management as mediator (Birasnav, Albufalasa, & Bader, 2013). Based on this, the following hypotheses are proposed:

H4: Transformational leadership has an indirect positive influence on organizational innovation through absorptive capacity.

METHODOLOGY

The study begins with the collection of quantitative data, that number of data utilized in this research is 1,777 medium and large size food manufacturing firms in Thailand.

The sample is group members, who involve product development were selected by a probability sampling technique. The sample size is prescribed to comprise of at least 10-20 examples per 1 parameter (Hair, Anderson, Babin, & Black, 2010). Within this study, there are 14 parameters; hence, the number of sampling subjects should between 140-280 samples. This covers the size of the samples group and appropriate for the data analysis (n>200) for the purpose of generating structural model formula (Madden & Dillon, 1982). In this research, 200 samples and sending the questionnaire by postal during 15 December 2020 to 10 April 2021. The samples size of the returned questionnaire by food manufacturing as shown in table 1

Table 1 The samples size from food manufacturing industry

Food manufacturing industry	Population	Sample
1. Processing and preserving of meat.	99	11
2. Processing and preserving of fish, crustaceans and molluscs.	175	20
3. Processing and preserving of fruit and vegetables.	147	17
4. Manufacture of vegetable and animal oils and fats.	113	13
5. Manufacture of dairy products.	48	5
6. Manufacture of grain mill products, starches and starch products.	642	70
7. Manufacture of other food product.	446	50
8. Manufacture of prepared animal feeds.	125	14
Total	**1,777**	**200**

The instrument for data collection is questionnaires specifically designed to cover all variable within the framework. The questionnaires are designed by using Likert Scale of Five levels range from strongly agree to strongly disagree and had 4 parts namely: background, transformational leadership, absorptive capacity, and organizational innovation.

The IOC was evaluated by three experts, and the IOC score of all items indicated 0.67-1.00 which was considered acceptable. The suggestion of the wording has been adjusted follow the expert for improve the validity. The IOC of variable shown in range 0.835-1.000.

The 30 questionnaires were tested for pilot study and found the result of reliability, Cronbach alpha coefficient have high relative internal consistency among items used was acceptable.

FINDINGS

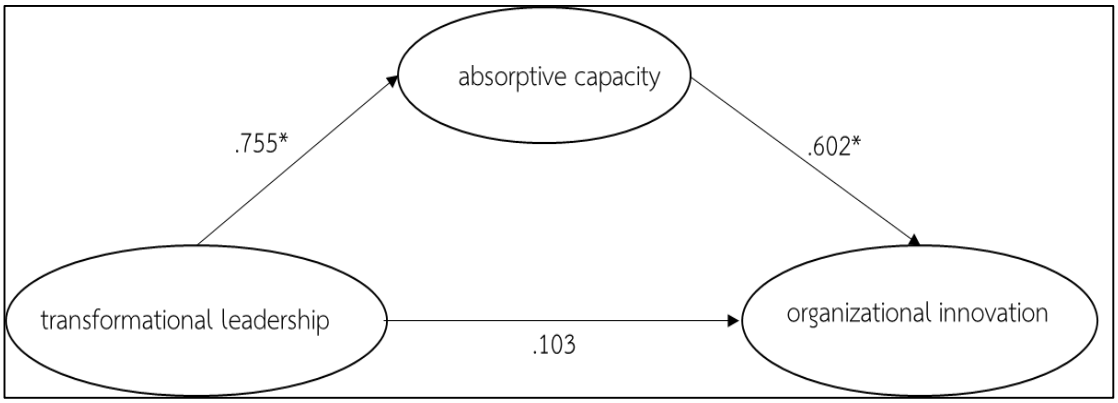

Figure 1 Result for model summary

Considering the outcome variable: Direct and Indirect Effect (Model 4)

Table 2 Result for model summary of outcome variable of TL, ACAP,OI

Process Macro model 4							
	R	R^2	*MSE*	*F*	*df1*	*df2*	*p*
ACAP	.808	.652	.120	371.515	1.000	198.000	.000
	coeff	se	t	p	LLCI	ULCI	
Constant	.903	.153	5.921	.000	.602	1.204	
TL → ACAP	.755	.039	19.275	.000	.678	.833	
	R	R^2	*MSE*	*F*	*df1*	*df2*	*p*
OI	.796	.634	.097	170.411	2.000	197.000	.000
	coeff	se	t	p	LLCI	ULCI	
Constant	1.161	.148	7.825	.000	.869	1.454	
TL→OI	.103	.060	1.732	.085	-.014	.221	
ACAP→OI	.602	.064	9.438	.000	.476	.727	
Total Effect Model	*R*	R^2	*MSE*	*F*	*df1*	*df2*	*p*
	.684	.468	.140	174.235	1.000	198.000	.000
	Effect	se	t	p	LLCI	ULCI	
Total Effect	.558	.042	13.200	.000	.474	.641	
Direct Effect	.103	.060	1.732	.085	-.014	.221	
	Effect	BootSE	Boot LLCI	Boot ULCI			
Indirect Effect	.454	.072	.325	.603			

From table 2 First, the total effect of TL on OI, found that the total effect of TL on OI had the positive effect 0.558, statistical significance at a level of .001. It was high value (more 0.2) which show that it has a hidden factor that effect to organizational innovation.

Second, at the statistical significance at the level of .001, the effect of TL on ACAP had the positive effect 0.755, and the effect of ACAP on OI had positive effect 0.602.

The last, the indirect effect of TL on OI through ACAP, found that the indirect effect of TL on OI through ACAP had the positive effect 0.454, statistical significance at a. level of .05. And at the statistical significance level of .05, The effect of TL on OI, which the coefficient effect 0.103

(decrease from 0.558 to 0.103) and was not statistical significance. So, the absorptive capacity was a full mediator. These results support to H_1, H_2, H_3, H_4.

DISCUSSION

From the empirical results above, Transformational leadership has a direct positive influence on organizational innovation (H_1), as found in the studies by Kartono, Bernarto, Sudbjo, and Pramono (2021). Sung and Kim (2021) found that transformational leadership has a direct positive influence on organizational innovation. Transformational leaders can stimulate employees to apply new patterns and ways of working to new problem solutions (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). More than that, leaders behaviors sets clear visions for employees (MacKenzie, Podsakoff, & Rich, 2001), helping employee continuously search for new information to achievement their duties in the workplace (Avolio & Bass, 1995). Transformational leadership has a direct positive influence on absorptive capacity (H_2), so these findings support previous research conducted by Shafique and Kalyar (2018), which indicated transformational leadership has a direct effect on absorptive capacity. Absorptive capacity has a direct positive influence on organizational innovation (H_3), which is consistent with the work done by Mushtaq, Chughtai, and Lashari (2021) that found absorptive capacity had a positive influence on innovative performance. Bessant and Trifilova (2017) also indicated absorptive capacity of firms can enhance innovation capability, so that employees learn more about internal knowledge and enhance new knowledge.

Transformational leadership had an indirect positive influence on organizational innovation through absorptive capacity (H_4), and this finding echoes the work of Mushtaq, Chughtai, and Lashari (2021) and Yaseen, Al-Janaydab, & Alc, N. A. (2018). Consequently, employees perceived support in their workplace such as a conducive environment for being creative and helping new ideas, which mean organizational climate that accept the risk for accessing the innovations (Leal-Rodríguez, Ariza-Montes, Roldán, & Leal-Millán, 2014).

SUGGESTIONS

Implications

The crucial factor in organizational innovation is that food firms should concentrate on transformational leadership style. This type of leadership includes idealized influence, intellectual stimulation, inspirational motivation, and individualized considerations of staff members. Those behaviors can be explained in holistic terms as being a role model to others, where the leader

can support colleagues for new ideas related to value creation, new alternative resolution strategies, help teams to understand shared value of work, help others in self-development. This leadership style creates a new mindset throughout the organization. For the management, training and development programs in longitudinal periods can help staff members change their mindsets and behaviors in responding to transformational leadership style. The role model from the top management is also effective for creating management to be transformational leadership style. Individual consideration takes the form of promoting self-development and resolution of individual problems. Therefore, the firm should support the leader for improve transformational leadership by training program to increase necessary leadership skills whether motivational skills or creative skills that resalt to organizational innovation. The acquisition, assimilation, transformation, and exploitation of knowledge are significant observed variables in the absorptive capability of management practices to function well in the food industry. Acquisition refers to ability of firms to identify and acquire external knowledge appropriately so that their operations benefit. The greater the effort to identify and gather knowledge, the better quality of acquisition capabilities the firm will have. Firms should place more emphasis on increasing external knowledge acquisition.

Limitation and future research

This study has some limitations that should be considered. The population derived from only one specific industry-food manufacturing industry. The findings and implications found here may not be applicable in other industry that different background. Moreover, the framework of this study can be applied to other industries no matter what size they are to document the ability of those firms to be innovative and operate well.

The other factor that may be limitation of this study is that some crucial factor such as digital technology that may affect the operation of innovation process was not studied. Other scholars may further the investigation to digital technology such as digital transformation, artificial intelligence, and other digital technology that may support organizational innovation.

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