

TRANSFORMATIONAL LEADERSHIP REALIZED ABSORPTIVE CAPACITY, ORGANIZATIONAL LEARNING, AND ORGANIZATIONAL INNOVATION: A MODERATED MEDIATION MODEL

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ABSTRACT

This study analyzed the influence of transformational leadership on organizational innovation. The realized absorptive capacity was applied as a mediator, and differences in the level of organizational learning served as a moderator in the model. The sample comprises large and medium-sized firms in the food manufacturing industry in Thailand. The conceptual framework was composed of organizational learning as the moderator and realized absorptive capacity as the mediator serving as the link between transformational leadership and organizational innovation. It was found that the different levels of organizational learning constitute a significant moderator and realized absorptive capacity as a mediator has an indirect effect on transformational leadership and organizational innovation.

Keywords Transformational Leadership, Realized Absorptive Capacity, Organizational Learning, Organizational Innovation, Moderated-Mediation Model

INTRODUCTION

Current issues in management have focused on the success of organizational innovation and it is something closely connected to leadership styles (do Adro & Leitão, 2020; Lim & Ok, 2021; Malloch, 2014). Organizational innovation can be driven by employees who have the ability to invent new things or new ways of getting market share for goods and services. In the context of organizational innovation, a transformational leadership style exerts a great deal of influence through the processes of learning and sharing knowledge (Khan & Khan, 2019). In transformational leadership theory, it is assumed that leaders can through actions help achieve their staff get things done and think about 'big picture' issues (Bass & Riggio, 2006). This leadership style has been found to motivate followers to develop their vision and implement change which their workplace may well need (Bass, 1985). Since the employees will be source of innovation given that they have the ability to learn and share knowledge, subsequently organizational learning is related to acquisition, dissemination, and interpretation of knowledge (Templeton et al., 2002). Organizational learning can support the process of relevant information to generate knowledge and practices as a basis for organizational innovation (Greiling & Halachmi, 2013; Sanz-Valle et al., 2011).

The effective organizational learning capability of specific organizations can greatly influence the capacity to innovate (Ho, 2011; Tohidi & Maryam, 2012). Some studies suggested that the transformational leadership can enhance learning and knowledge sharing capabilities of and inspire the introduction of a productive learning environment (Homburg et al., 2019).

Therefore, the transformational leadership should be considered when determining how innovation should be managed. In this context, the concept of absorptive capacity is very relevant. Absorptive capacity is one of the most influential concepts in the management of innovation, but it has not been much researched (Aldieri et al., 2018). Absorptive capacity can be determined in terms of the ability of an organization to respond to external knowledge and utilizing it for good operational performance or achieving the innovation and competitive advantage, and it has a spillover effect (Oh, 2017; Tzokas et al., 2015). As well, high absorptive capacity is crucial for promoting knowledge spillover into innovation success in terms of innovation quality. Conversely, a low absorptive capacity brings about risks in knowledge development, poor level of organizational innovation because transformations are not occurring or too slowly (Duan et al., 2021). Moreover, it is a crucial factor affecting innovation performance, but on rarely have studies concentrated on the link between absorptive capacity and organizational innovation (Duan et al., 2020). Many scholars considered absorptive capacity as exerting an impact on innovation of organizations but specifically in manufacturing industry. The question is: does realized absorptive capacity function as a mediator between transformational leadership and organizational innovation in the food manufacturing industry?

Based on the above comments, the current study determines the link between transformational leadership and organizational innovation where realized absorptive capability is the mediator. Organizational learning was applied as the moderator in the framework. The purpose of this study is to assess the influence of transformational leadership on organizational innovation using realized absorptive capacity as the mediator, and the different levels of organizational learning as the moderator in the model.

LITERATURE REVIEW

Transformational Leadership

Transformational leadership style has been studied with reference to the performance of employees (Advani, 2015; Al-Amin, 2017). The concept of transformational leadership began with Bass (1985) who summarized that leader's support and encourage their workers through inspiration and charisma so that employees' behaviors lead to good outcomes. Transformational leaders are concerned directly with employees' perceptions of the vision, mission and values of the company (Lim et al., 2019). In addition, the transformational leaders play an important role in encouraging employees to take risks and support even when negative results might eventuate (Khalili, 2016). Transformational leaders have an impact on the workplace environment like trust and mutual respect which consequently build the level of participation in decisions via information sharing (Mittal & Dhar, 2015). Knowledge sharing was found to positively affect innovative work behaviors (Sudibjo & Prameswari, 2021). Furthermore, García-Morales et al. (2012) documented that transformational leadership influences organizational innovation and in turn how well the organization performs.

Hypothesis 1: Transformational leadership has positive direct effect on organizational innovation.

Realized Absorptive Capacity

Absorptive capability, according to Cohen and Levinthal (1990) is determined at the organizational level in terms of capability of organization to acquire, learn, and apply new

external knowledge to achieve certain goals. The components of absorptive capacity are understanding, accumulating, and applying knowledge appropriate to what a workplace requires. Moreover, the absorptive capability can contribute to the application of new knowledge to support organizational innovation. Zahra and George (2002) considered absorptive capability in terms of dynamic capability which is related to: firstly, potential absorptive capacity for the acquisition and assimilation of knowledge; and secondly, transformational and utilization of that knowledge to help generate a competitive advantage. The competitive advantage of an organization is derived from innovation influenced by realized competitive advantage (Cepeda-Carrion et al., 2012).

“Hypothesis 2: Transformational leadership has positive direct effect on realized absorptive capacity”

“Hypothesis 3: Realized absorptive capacity has positive direct effect on organizational innovation”

Organizational Learning

Organizational learning can be identified as the process of acquiring knowledge, absorbing, modifying, and transferring to create organization performance in the workplace (Desai, 2010). It involves the combination of external and internal knowledge's to create continuous improvement, innovation and value creation for the purposes of successful outcomes. Organizational learning is closely linked to innovation. Organizational learning occurs from experiences and planned activities to improve knowledge and how to apply effectively to one's work (Carroll & Edmondson, 2002). It is a crucial aspect in determining innovation success (Gachanja et al., 2020). Since innovation needs to utilize knowledge to raise creativity in specific industries, organizational innovation has been evaluated in recent years (Ghasemzadeh et al., 2019; Zhou et al., 2015). Organizational learning is deemed to be a dynamic environment related with different levels ranging from individual to group or entire organizational contexts (Eisenhardt & Martin, 2000; Jerez-Gomez et al., 2005). Consequently, in fact, it is a major variable in creating an innovative outcome and gives a business a competitive advantage (Venkataraman & Shane, 2000).

“Hypothesis 4: Organizational learning was a moderator with transformational leadership on realized absorptive capacity”.

“Hypothesis 5: Organizational learning was a moderator with realized absorptive capacity on organizational innovation”.

Organizational Innovation

The innovative behavior of an organization helps to adapt appropriately with a changing environment and take competitive advantage in a given industry (Islam et al., 2021). The employees' role is to create and implement innovative solutions for particular tasks (Purc & Laguna, 2019). In considering innovation at work, employees' desire to apply new ideas for creating, generating, and implementing ideas and concepts that benefit organizational performance (Niesen et al., 2018). In this scenario, the leaders and especially those with a transformational leadership style play an essential role to support employees' innovative behaviors (Denti & Hemlin, 2012; Hansen & Pihl-Thingvad, 2019). Organizational innovation reflects a holistic process of generating inventive ideas (Ali et al., 2011). According to modern innovation theory, innovation essentially stems from cooperation and knowledge exchange between stakeholders (Lundvall, 2016). From the literature mentioned above, this study

emphasizes the importance of analyzing leadership styles because they have an indirect effect on organizational innovation through organizational learning as moderator, while realized absorptive capacity is the mediator.

“Hypothesis 6: Transformational leadership has an indirect effect on organizational innovation through realized absorptive capacity and organizational learning as moderator”.

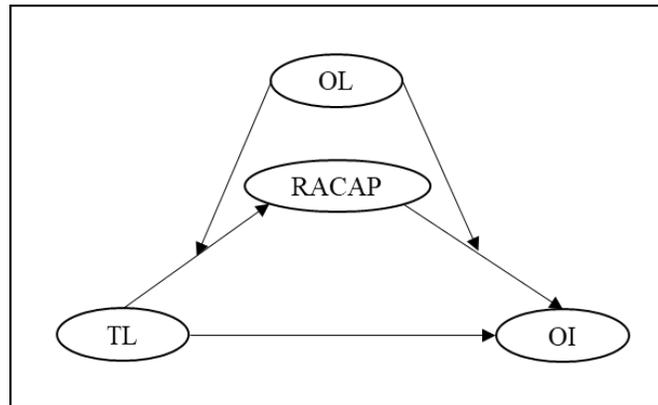


FIGURE 1
THE MODEL OF TRANSFORMATIONAL LEADERSHIP, REALIZED ABSORPTIVE CAPACITY, ORGANIZATIONAL LEARNING, AND ORGANIZATIONAL INNOVATION: A MODERATED MEDIATION MODEL

RESEARCH METHODOLOGY

Population and Sample

This study selected the medium- large sized in the food manufacturing industry. The population has 1,777 firms. The samples comprised employees who work in the product and process responsibilities. Since Structural Equation Modeling (SEM) was applied to clarify the framework that was composed of mediator and moderator, the sample size consisted of 200 firms (Madden & Dillon, 1982). Furthermore, the sample was by stratified into eight groups who work in food manufacturing. The sampling of 3 persons per firm and average 3 persons in 1 firm to protect a bias from worker. The questionnaires were sent by letter and 271 answers from 200 firms were completed and returned.

Instrument Development

The instrument for data collection was a questionnaire divided into 5 parts, namely, characteristics of the firms, transformational leadership was adapted from Bass and Avolio (1996), organizational learning was adapted from Jerez-Gomez et al. (2005), realized absorptive capacity was adapted from Zahra and George (2002), and organizational innovation was adapted from Camisón and Villar-López (2014). The content validity was confirmed by the experts, and the Index of Item Objective Congruence ranged from 0.67 to 1.00 so it was acceptable. Finally, the Cronbach's Alpha coefficient was applied to ensure reliability, and it was found that the value ranged from 0.892 to 0.966 which is an acceptable outcome.

Data Analysis

The data was tested for normality distribution and variance inflation factor was analyzed to find if multicollinearity was present. It turned out that the statistical value was acceptable. Furthermore, to examine the construct validity by confirm factor analysis, convergent validity and composite validity; found that the model was suitable. Finally, the moderated mediation model for finding the relationship of these variables was done using the proposed model.

RESULTS

Construct Validity

In considering construct validity so that the model is suitable, confirmatory factor analysis was applied to examining the relationship of the observed variables in the model. The value of goodness-of-fit indicated an acceptable range; Chi-square = 115.023, Degree of freedom = 48, Chi-square/df = 2.396, GFI = 0.914, AGFI = 0.860, RMR = 0.012, RMSEA = 0.084, NFI = 0.956, CFI = 0.974. Convergent validity was tested based on the value of average variance extracted (AVE), and what emerged was an acceptable range between 0.739 to 0.830, since it was greater than 0.05 (Fornell & Larcker, 1981). Furthermore, the result for composite reliability (CR) was between 0.849 and 0.938, so it was greater than 0.5 (Hair et al., 2010). Consequently, the construct validity was acceptable.

According to the statistical results, the transformational leadership had a direct effect on organizational innovation from the coefficient 0.557 which was higher than 0.2. It should be noted that the coefficient effect was too high in reality, as might be some other factors exerting an influence on organizational innovation. The overall model was analyzed by using a PROCESS macro (model 58) suggests by Hayes (2017). This study integrating the organizational learning as a moderator and realized absorptive capacity as a mediator to establish the direct and indirect effects. The coefficient effect of transformational leadership on organizational innovation was reduced from 0.557 to -0.024 which indicates no significance. This finding suggested a high coefficient level of transformational leadership on organizational innovation reflects organizational learning as a moderator and absorptive capacity as the mediator.

Table 1 Summary of the outcome variables of RACAP, TL, OL

	Model					
	coeff	se	t	p	LLCI	ULCI
TL→RACAP	.235	.067	3.496	.001	.103	.368
OL→RACAP	.796	.066	12.013	.000	.665	.927
TL*OL→RACAP	.178	.045	3.989	.000	.090	.267
TL→OI	-.024	.066	-.367	.714	-.155	.106
RACAP→OI	.391	.068	5.772	.000	.257	.524
OL→OI	.298	.086	3.481	.001	.129	.467
RACAP*OL →OI	.034	.042	.806	.421	-.049	.117

Table 1 shows that at the significance level of 0.001, the organizational learning has an influence on realized absorptive capacity, which in turn can guide organizational innovation. Organizational learning can create an interaction between transformational leadership and

realized absorptive capacity and according to the level of organizational learning, the results showed that it has a significance ranging from medium to high value. It can be stated here that the medium and high values function as a moderating effect between transformational leadership and realized absorptive capacity. Simultaneously, at the significance level of 0.01, transformational leadership can influence realized absorptive capacity while organizational learning can shape organizational innovation.

Table 2 Summary of the indirect effect

Indirect effect: Conditioning Values	OL	Effect	TL → RACAP → OI		
			BootSE	BootLLCI	BootULCI
LOW	-.645	.044	.030	-.010	.109
MEDIUM	.000	.092	.034	.031	.164
HIGH	.645	.145	.044	.066	.237

Table 2 documents the indirect effect of transformational leadership on organizational innovation through realized absorptive capacity. Involved there are different levels of organizational learning functioning as the moderator variable. It was found that only medium and high levels of organizational learning significantly influence the level of organizational innovation, which is higher at the 0.05 significance level. The pairwise comparison concerning of the indirect effect of transformational leadership on organizational innovation can be explained as follows and briefly. The different levels of indirect effect of transformational leadership and organizational innovation through realized absorptive capacity depend on the level of organizational learning.

CONCLUSION

According to the multi-variables developed for our framework, the transformational leadership and organizational innovation did wield certain effects through realized absorptive capacity as mediator, and organizational learning as moderator. The different levels of organizational learning as a moderator, and realized absorptive capacity as a mediator do exert a significant indirect effect on transformational leadership and organizational innovation. The higher level of organizational learning performs as a moderator with transformational leadership and furthermore the indirect effect of transformational leadership on organizational innovation is higher when realized absorptive capacity serves as the mediator.

Contribution

In considering the implications for practice, this study investigated firms operating in the manufacturing industry and are interested in how innovation can lead to a business advantage. It was found here that innovation strongly relates to organizational learning where managerial commitment, system perspective, openness and experimentation, and knowledge transfer and integration are paramount. The statistical measurements lead the conclusion that the management of food firms should support experiments, research and development so that innovations are meaningful and lead to better operations. External knowledge capability in the industry is crucial to firm performance if businesses need to be better than their competitors.

In these circumstances, the transformational leadership styles can be beneficial to innovation, because intellectual stimulation, inspirational motivation, etc., will encourage new

ideas for employees at work to consider and lead to value creation. They can devise different and new procedures for solving problems in the food industry. Moreover, the transformational leadership has a positive impact on supporting employees to the extent that they learn how to cooperate and develop their professional lives. Then, the management teams of food firms should prepare for developing innovative mindsets driven by a transformational leadership style as this will lead to commercial advantage.

Limitation and Future Research

The sample of this study was limited to medium – large sized firms in the food manufacturing industry that were expected to create innovation. However, the development of digital technologies may be just as advantageous for small firms when it comes to being innovative. Other scholars may consider studying the innovation as carried out by small companies or businesses with control variables such as organizational culture, capital, and human resources management. Digital transformation in the workplace and the overarching industry must continue to be studied and evaluated.

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