

# Model Development Analyzing Casual Affecting the Effectiveness Logistic Industry Organization in the East Economic Corridor Area of Thailand

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## ABSTRACT

This research studied on the casual relationship affecting the effectiveness of logistics industry organizations in the East Economic Corridor area of Thailand. The tool used in this research was the questionnaire distributed to 500 of staff samples group. It was found from the study results that the casual factor showed with high levels of relationship to the organization effectiveness in the aspects of Transformational Leadership, Organizational Culture and Organizational learning. For the study on the factors affecting the organization effectiveness, it was found that the factors in the aspect of Transformational Leadership, Organizational Culture and Organizational learning had the positive effects on the Organizational Effectiveness. Those factors resulted on the high effectiveness of the organization and its competitive advantages.

**KEYWORDS:** Transformational Leadership, Organizational learning, Organizational Culture and Organization effectiveness

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## INTRODUCTION

At present, Thailand gives importance to the development of Logistics system in supporting for the hub of trading, services and regional investment. Since there are more opening for free trade, the government then pays ongoing attention on infrastructure and logistics system with the objectives to form strength for the entrepreneurs and leverage the level of effectiveness in trading facilitation system (Department of Industrial Promotion, 2562). In the same time, the neighbor countries' economic tends to show with high ratio of growth. This results on the economic expansion on the production, trade and goods distribution in the area of border checkpoint. Thailand then develops its logistics system to connect the transportation either domestic or international to increase the standard universal performance (Office of the National Economic and Social Development Board, 2559). Moreover, to promote for the economic expansion to increase the employment, leverage quality of living and the population incomes since the Eastern part of Thailand is located in the best strategic point in ASEAN region. Moreover, the three provinces in the Eastern part of Thailand (Chachaengsao, Chonburi and Rayong) are the national crucial industrial production base including aviation industry and logistics. According to the report from World Bank in B.E. 2559, Thailand is ranked at no. 56 from 189

nations worldwide mainly from the logistics development in industrial sector. The most emphasis is on training, promotion while SMEs entrepreneurs still lack of the opportunity for knowledge development, they have no standard data storing system for the operation planning to control on the business processes. Besides, the logistics process has been operated in limited circle without success reflection in concrete way (The Federation of Thai Industries, 2559). Therefore, the target group that shall receive the promotion and development to increase the potential on logistics and supply chain management is the group of the manufacturing entrepreneurs with the high cost of logistics. Then linking to those logistics service providers as well as the logistics human resources development (Department of Industrial Promotion, 2562).

From the aforementioned problem, logistics industry then has lower competitive ability thus, the entrepreneurs must be the Transformational Leadership on the aspect that forms the Inspirational motivation, Intellectual stimulation, Individualized consideration and Idealized influence in order for the logistics industry to become successful with competitive advantages (Archambault, 2019). Moreover, to become the Organizational learning in which consists of System Thinking, Team Learning, Mental Model, Personal Mastery and Shared

Vision to become the tools that help in the efficiency analysis (Ekeledo, 2019). To assist the personnel toward the obvious work direction that would lead to the good culture where the organization would develop toward the better direction. Culture is the crucial part to shape up the attitude and behavior of staff in the organization for them to operate according to the organizational objective, mission and vision. Therefore, the organizational culture that affects on organizational performance consists of Adaptability culture, Achievement culture, Clan culture and Bureaucratic culture. These will help improve on staff work perspective to become one and promote for the creativity and innovations in the organization (Chiu and Fogel, 2017).

According to these essential points, the researcher then interested to study on model development for the analysis on the casual relationship in which affects on the efficiency of Logistics Industry Organization in the East Economic Corridor Area of Thailand. The results from this research will be benefited for the Logistics Industry to be able to compete in the global market with quality and sustainability

## Reviews of Literature and Conceptual Framework

### 1. Transformational Leadership

Transformational Leadership is the factors influenced on changes in behavior and attitude of the organizational members. This would support the organization to have the competitive ability. Therefore, Transformational Leadership is accepted as the most crucial factor since it can help driving all the operational processes in the organization to run effectively. From the research on the behavior of the Transformational Leadership, it is found that leader tends to transfer their functions, responsibilities and importance authority aiming toward the beneficial from using the personal skills and to bring it to effectively cope with the current problems for the quick achievement (Harmon, 2019). Also, leader is functioned to take care and teach the followers with skills thus, for them to cope with the problems from work or stimulate them to participate into important decision. This would call for the cooperation and attention on teamwork as well as any of conflicts management for the improvement on organization structure to be more appropriate and easy to manage and increase the organization effectiveness (Darnell, 2019). Besides, it is found that Transformational Leadership can appear in the organization that supports for learning and needs to develop the staff to motivate them with

inspirational support for them to feel as part of the organizational success (Abidakun, 2020). Any organizations that have Transformational Leadership would result on their staff creativity and for the organization to have the long term development plan to effectively eliminate the future problems (Ma et al., 2020). Therefore, Transformational Leadership consists of four factors according to the theory of Bass (1985) as follows:

- 1.1 Idealized influence refers to the organization has the leader who avoids to exercise the power, with flexible management and ideology to stimulate and encourage staff to think new and practice without adhering to the old pattern.
- 1.2 Inspirational motivation refers to that the organization has the safety work environment to promote proper self-development among their staff for the success with fairly returns.
- 1.3 Intellectual stimulation refers to that organization has promoted for their staff to gain full advantages from knowledge and ability. He/she should be the creative leader that will not criticize on the staff opinion though, the idea may be different from them.
- 1.4 Individualized consideration refers to that the organization has two-way communication and fairly perceive on the information. Attention must be equally paid to all staff with support.

The research hypotheses can be set as follows:

*H1: Transformational Leadership had the direct influences on organization culture.*

*H2: Transformational Leadership had the direct influences on Organization effectiveness.*

*H3: Transformational Leadership had the direct influences on Organizational learning.*

### 2. Organizational Culture

The organization with good culture results on their staff to have well responsibility toward the assigned tasks with the good services, great teamwork. These would lead to the organization creativity, speed in operation, open to criticism and prompt to face with truth that would help improve toward better operation. Besides, the organizational cultures can be shifted from the co-value that has been inherently practiced until being widely accepted and become the strong culture that leads to the active advantages in which giving the organization the higher efficiency (Cutlip, 2019). If the organization members have the practice

guideline in response to the fundamental needs of the organization, it would be the beginning of innovative creation that leads the organization to adjust itself with the environment that cannot be imitated. Therefore, the organization shall evaluate on the proper potential in order to form the fruitful and valuable culture for the organization and strength. According to the study by Habtoosh (2018), it was found that any organization that promotes for the best practices normally have the trust, respect and inspiration atmosphere that it would be able to efficiently form the good cultures. More or less the cultural characteristics will affect on the organization efficiency, it depends on the organization environment at that time (Caraballo, 2016). Besides, the organizational culture is the key factor that supports the tie among staff in the organization to cooperate well while working toward the organization goal (Lett, 2019). Therefore, the organizational culture consists of 4 factors according to the theory of Daft (2008) as follows:

- 2.1 Adaptability culture refers to when the organization allows the staff to adjust the work method according to the appropriateness; aimed at forming values with encourage to do new things and self-development toward higher work efficiency.
- 2.2 Achievement culture refers to knowledge sharing between staff, work replacement and work assessment for the work efficiency with necessary rules toward success.
- 2.3 Clan culture refers to staff cooperation toward the organization required achievement and participation to set for the work goals with the attempt to join efforts for the quick achievement.
- 2.4 Bureaucratic culture refers to the clear hierarchical commanding structure in the organization with the systematic work process and the goal that conforms with the operational plan.

The research hypotheses can be set as follows:

*H4: Organization culture had the direct influences on Organization effectiveness.*

### 3. Organizational learning

The organizational learning is the idea to use in organization development by giving importance to the internal organization resources which are considered as the valuable assets. It is to help forming the value-added, competitive advantages and being the tool to increase the organization efficiency (Ayodeji, 2019). Besides,

the organization supports on their staff learning that will ongoing generate the organization profits. In the past several years, many of organizations give important to the organizational learning (Sinkula, 1994; Slater & Narver, 1997). Also, many famous organizations have adjusted themselves toward the organizational learning to generate competitive advantages. It leads their staff to have co-learning since learning by some like in the past is not enough then, it requires to have the whole organizational learning that would help in quick achievement (Chung, 2019). Besides, the organizational learning can stimulate the creative idea and proper problems solving (Safiia, 2019). Therefore, the organizational learning consists of 5 factors according to the theory of Senge (1990) as follows:

- 3.1 Personal Mastery refers to staff holds the organizational goal as the key in their work, learning from the real situation and participate to provide the opinions to get the good problem solutions.
- 3.2 Mental Model refers to the organization allows for independent thinking and allows staff to adjust the work approach appropriately with information sharing between divisions and thorough power distribution.
- 3.3 Shared Vision refers to that the organization opens the chance for its staff to join in the operational planning to form the co-vision and thoroughly inform for all to hold on to practice and understanding well on the strategy.
- 3.4 Team Learning refers to that the organization gives important to teamwork, confidence in team, exchanging ideas and suggestions for team knowledge development.
- 3.5 System Thinking refers to that staff have systematic working approach with communication skill, effectively response and ability to resolve the problems to reduce the work mistake.

The research hypotheses can be set as follows:

*H5: Organizational learning had the direct influences on Organization effectiveness.*

### 4. Organizational Effectiveness

Changes in society, environment, economic system and technology in which essential for the organization adjustment. These could be the obstacles for the profit generating, investment, or forming the competitive advantages especially at recent where there is the strong competitiveness.

Therefore, the organization efficiency is the procedure that used to set for the direction and work approaches for the creative learning, leading to the new innovation in the organization (Migdadi, 2019). In the same time, measuring the organization operational efficiency can be done in many dimensions. Since there is no proper method, it then up to the objectives to be used for the future profit generating and for the securely value-added and to set for the organization strategy to form the competitive advantages. Therefore, placing the strategy no matter on which method must rely on the goal which is to add more efficiency to the organization to avoid the future problems (Knights et. al., 2020). Moreover, to stimulate for the competitive ability under the risk situation in business conducting. Besides, there shall be both internal and external environment assessment to forecast on the future events as well. Most of the studies on the operational performance would be in form of assessment. If study into the past, the organization development ideas from each theorist seem to keep on with the attempts to create the new tools to measure on the business success. It can be noticed that the performance efficiency used in each decade seem to be different according to the contents and conditions of use. Some indicators may be important to the industry while do not important to

the others. The most important things for the organization to achieve its goals is the efficiency to coordinate within any units, joint-learning of staff in the organization via the wide welcoming of ideas and their cooperation that would lead to the long-term growth rather than only using the command and strict training. It would result on the organization to add more efficiency of learning, knowledge distribution, and applying of knowledge to promote for the ongoing learning by personnel in order to increase the business opportunities in the future (Ayodeji, 2019). The organization efficiency measurement consists of three factors according to the theory by Venkatraman and Ramanujam (1986) as follows:

- 4.1 Return On Investment refers to when the organization gets higher returns compared to the past years with the ongoing higher sales and ability to form the competitive advantages over the competitors in all aspects.
- 4.2 Sales growth refers to the increasing of customers, more services taking in one time and the ability to remain with the market margins.
- 4.3 Profit refers to the organization well response to the needs of customers and the ability to remain with costs that give the certain profits.

**Conceptual Framework**



**Figure 1 Conceptual Framework**

**Research Methodology**

Populations are 500 staff samples from the logistics industry that passed the standard criteria on the quality management for logistics business services in B.E. 2561 in the East Economic Corridor Area of Thailand. It covered on three

provinces of Chachaengsao, Chonburi and Rayong from 10 industries (Department of Business Development, (2561).

Research tools consists of 6 aspects which are

1. general information of the respondents
2. Transformational Leadership
3. Organizational learning
4. (Organizational culture)
5. Organizational Effectiveness)
6. Suggestions and others.

For the tools' quality checking, it consists of 1) Content validity from three experts who find out the Index of item objective congruence (IOC) values between 0.60-1.00 in which passed the criteria with high validity (Rovinelli& Hambleton, (1997); 2) from the checking on the Reliability values by using the (Pre-Test) questionnaire for 30 sets to seek for the Cronbach's alpha coefficient values, and they are between 0.695-0.939 in which passed the standard criteria with high confidence (Nunnally, 1978).

Data analysis adopts the statistics such as 1) Average; 2) Standard deviation; 3) Pearson's

Product Moment Correlation Coefficient; and, 4) Structural equation model analysis (SEM).

**The Result**

From the overall opinions, it was found that the values were at high level ( $\bar{X} = 3.53$ , S.D = 0.47). When considering in each aspects from the high to low average values; it was found that Transformational Leadership got the highest average score ( $\bar{X} = 4.10$ , S.D = 0.67), second by the Organizational Culture ( $\bar{X} = 3.67$ , S.D = 0.48), Organizational Effectiveness ( $\bar{X} = 3.48$ , S.D = 0.37), and Organizational learning ( $\bar{X} = 3.42$ , S.D = 0.31).

The analysis results from the Structural equation model analysis (SEM) model found that Chi-Square (56.031), CMIN/DF(1.580), GFI (0.948) and RMSEA (0.046) values can explain on the conformance of the model as in Table 1.

**Table 1** Goodness of fit statistics

Model	Model Fit Criteria	Result
Chi-square	-	56.031
p-value	>.05	.156
GFI	>.90	.948
CMIN/DF	<3	1.580
RMSEA	<0.08	.046

**Structural Model**

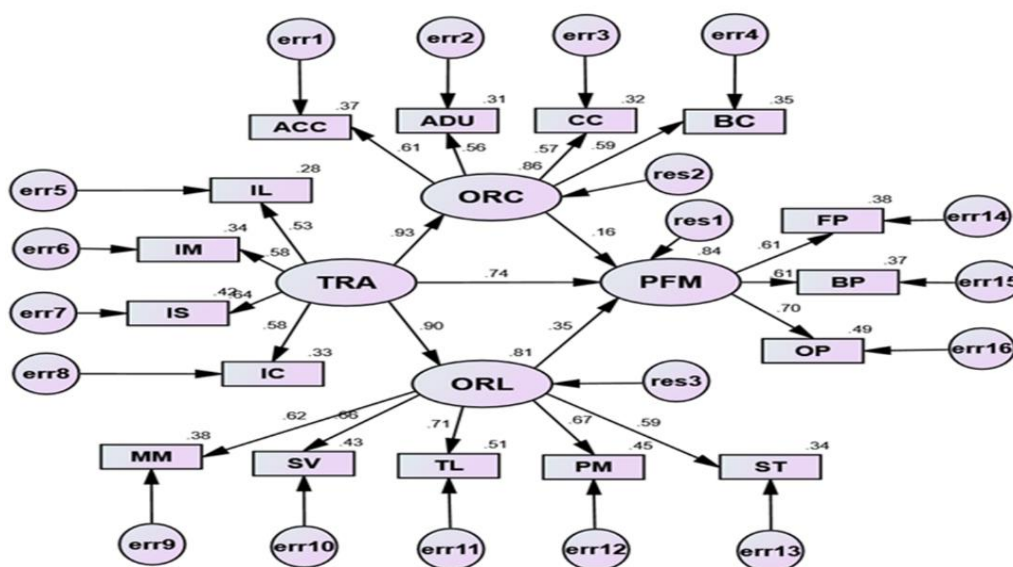


Figure 2 Structural mode



Figure 2 found that Transformational Leadership had the direct influences on organization culture (DE=0.90)with the statistical significance level of 0.05 (P-value = 0.029).

Besides, the organizational learning had the direct influences on organization efficiency

(DE=0.16)with the statistical significance level of 0.001.The organization culture had the direct influences on organization efficiency (DE=0.35) with the statistical significance level of 0.01 (P-value = 0.003) as can be seen inTable 2.

**Table 2**Regression Weights

	Variances		Estimate	S.E.	C.R.	P	Standardized
ORC	<---	TRA	0.974	0.102	9.549	***	8.786
ORL	<---	TRA	1.077	0.109	9.881	***	8.730
PFM	<---	TRA	0.845	0.086	9.826	0.029*	3.516
PFM	<---	ORC	0.913	0.109	8.376	***	9.923
PFM	<---	ORL	1.203	0.206	5.840	0.003**	2.976
BC	<---	ORC	1.000				8.886
CC	<---	ORC	0.954	0.110	8.673	***	8.823
ADU	<---	ORC	1.129	0.127	8.890	***	8.715
IC	<---	TRA	1.000				9.786
IS	<---	TRA	1.263	0.123	10.268	***	9.889
IM	<---	TRA	1.241	0.126	9.849	***	9.174
IL	<---	TRA	1.139	0.117	9.735	***	8.564
ST	<---	ORL	1.000				6.786
PM	<---	ORL	1.108	0.113	9.805	***	10.302
TL	<---	ORL	1.192	0.114	10.456	***	10.676
SV	<---	ORL	1.178	0.121	9.736	***	10.112
MM	<---	ORL	1.013	0.107	9.467	***	9.726
ACC	<---	ORC	1.132	0.125	9.056	***	9.335
FP	<---	PFM	1.000				9.786
BP	<---	PFM	1.035	0.101	10.248	***	9.675
OP	<---	PFM	1.258	0.112	11.232	***	10.592

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0$ .

**Hypothesis**

**Table 3**Hypothesis Outcomes

Hypothesis	Statement	Decision
H1:	Transformational Leadership had the direct influences on organization culture.	significant
H2:	Transformational Leadership had the direct influences on Organization effectiveness.	significant
H3:	Transformational Leadership had the direct influences on Organizational learning	significant
H5:	Organizational learning had the direct influences on Organization effectiveness.	significant
H4:	Organization culture had the direct influences on Organization effectiveness.	significant

## CONCLUSION AND DISCUSSION

It was found from the research results that Transformational Leadership had the influences on the organization culture, organization learning and organization efficiency. Organization promotes for self-development among its staff while providing them with full independence to work in coping with any situations in efficient way (Ojha et.al. 2018). Leader helps the organization to set for the long term development plan to prevent the problems that may occur in the future. Besides, they should be the persons who are specialized on the vision design with creativity for the effective operation (Buil et al., 2019); and to support the employees to equally access into the information and for them to feel as part of the organization success (Balwant, 2019). However, organization culture still be the key variance to shift the work behavior was the staff work behavior in which would lead to the good organization efficiency (Northouse, 2016).

Organizational learning and organization culture have the influences on the organization effectiveness. Smart leader with ideology would avoid the power exercising and having the ability to form the inspiration for their staff to work effectively with appropriate reflection (Kim and Park, 2019). To form up the new knowledge and knowledge transfer to each other to support organization to have more strength and to join in problems solving thus, to increase the competitive ability (Bhaskar and Mishra, 2017). The study by Malik and Garg (2017) found that the organization that distributes variety of knowledge can have positive effects on the organization financial efficiency. Besides, the organizational culture is the main factor that supported the organization to get the highest benefits in which would lead toward values added to products and services (Fernstrom, 2019). From the study by Caraballo, (2016), it was found that the cultural characteristics can affect on the organizational efficiency; where more or less the effect depends on the organization culture and environment.

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