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# A STRUCTURAL EQUATION MODEL OF ORGANIZATIONAL PERFORMANCE OF AIRPORTS OF THAILAND PUBLIC COMPANY LIMITED

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## Abstract

The objectives of this research were 1) to study the level of organizational culture, organizational learning, transformational leadership, dynamic capability, human resource management practices, and organizational performance; and 2) to study the influence of organizational culture, organizational learning, transformational leadership, dynamic capability, and human resource management practices on organizational performance. This research used the quantitative research method. The sample group was staff working at the Airports of Thailand: Suvarnabhumi International Airport, Don Mueang International Airport, Phuket International Airport, Chiang Mai International Airport, Hat Yai International Airport and Mae Fah Luang Chiang Rai International Airport for a total of 440 persons stratified random sampling was employed in this study. The data were collected with questionnaires and analyzed with descriptive statistic and structural equation modeling. The results revealed that 1) organizational culture, organizational learning, transformational leadership, dynamic capability, human resource management practices, and organizational performance were rated at high level; and 2) organizational culture, organizational learning, and dynamic capability have a direct influence on organizational performance, while transformational leadership and human resource management practices have an indirect influence on organizational performance. The results of this research executives of Airports of Thailand Public Company Limited, as well as other organizations can apply the results of this research: to be used as a guideline for improving the performance of the organization both in terms of policy and operation in all airports responsible and to plan the operation for efficiency and further performance.

**Keywords:** Organizational Performance, Dynamic Capability, Airports of Thailand

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## **Introduction**

Aviation provides worldwide transportation network which facilitates global economic growth, global business, global tourism and contributes to global productivity. The business of air transportation plays a major role in supporting world trade by providing the necessary logistical assistance for companies and other organizational institutions to gain access to their main markets and contribute in global production. The presence of air transportation makes the conduction of outsourcing to countries specializing in a particular trade enables both sides to develop a comparative advantage and reinforcing trade with other nations worldwide to maintain their production of goods and services into distant areas. Multinational companies can get benefit by allowing managers to visit overseas to subsidiaries in different countries in order to spread best practices for their business operations. Furthermore, air transport helps companies to get high quality employees from different parts of the world specifically professionals and senior staffs. (Air Transport Action Group, 2005) The air transport industry plays an important role to support tourism by helping to create jobs within the tourism sector such as hotels, visitor attractions, car rental, restaurants, local transportation particularly in remote and island destinations. Many developing countries rely on tourism as it contributes to economic development. This makes rapid movement of goods and people freely with ease of restrictions.

Those who engage more often with air transportation mostly gain the social benefits that enhance their quality of life and raise their living standards. This means that countries could generate economic growth, increase revenue from taxes, and provide employment opportunities. These social benefits can develop particularly remote regions by supporting remote communities, sustainable development and widening consumer choices. The development of air transport industry through service and technical achievements leads to one of the greatest contributions in the advancement of modern society.

From the present situation, AOT various problems, which affect service users such as 1) the number of passengers increases every year to the extent that airport's capacity to accommodate passengers 2) mass transit management problems within airport especially the taxi problem. 3) the problem of complaints about the inappropriate and inefficient performance of the employees. International Civil Aviation Organization (ICAO) used to assessed Thailand's air transport operations to the point that Thailand's airline standards failed the standard assessment or received a red card. Which is considered a big problem now and in the next step may be the assessment of Thailand's airport standards. The heart of driving every organization is employees. If the organization has employees with knowledge, ability, dedication, honesty in performance The work will be done well. Therefore, the researcher foresaw the importance of studying the organizational performance of AOT in order to bring to improve the performance of employees to achieve the highest efficiency and effectiveness. impress visitors at airport of Thailand. (Airports of Thailand Public Company Limited, 2014)

This research article aims to study 1) the level of organizational culture, organizational learning, transformational leadership, dynamic capability, human resource management practices, and organizational performance, and 2) the influence of organizational culture, organizational learning, transformational leadership, dynamic capability, and human resource management practices on organizational performance.

## **Literature Review**

### **Organizational Culture**

An organizational culture consists of values, beliefs, assumptions, and norms that guide employees' behavior and organization activities (Martin & Terblanche, 2003). Strong organizational culture can empower employees to exchange information, expertise, ideas, and innovate (Lund, 2003). Organizational culture is frequently measured four observed variables

include clan culture (CLAN), adhocracy culture (ADHOC), hierarchy culture (HIERA) and market culture (MARKE).

### **Organizational Learning**

Organizational learning involves producing, integrating, gaining, and transferring knowledge to improve performance (Gomes & Wojahn, 2017). It is knowledge created, exchanged, and modified by group members (Chen, 2005). From the literature review and analysis of organizational learning can be indicated four observed variables include knowledge acquisition (KNOAC), knowledge distribution (KNODI), knowledge interpretation (KNOIN) and organizational memory (ORMEM).

### **Transformational Leadership**

A transformational leader prepares workers to accomplish their tasks (Avolio et al., 2004). Employees are highly engaged and perform better when managers take on a transformational leadership role (Pasovska & Miceski, 2018; Sangperm & Chienwattanasook, 2019; Busari et al., 2020). Many studies indicate that transformational leaders consist of idealized influence (IDINF), inspirational motivation (INMOT), intellectual stimulation (INSTI) and individualized consideration (INCON).

### **Dynamic Capability**

Dynamic capability as part of the mission objectives that determine how the organization integrates workers to cope with working system changes and adapt to updated needs and demands in the transitional market environment (Verma & Rao, 2016). Dynamic organizations are agile and resilient in their strategic operations, which gives them a competitive advantage over the competitors (Jantunen et al., 2018). Most literature measures dynamic capability consists of three observed variables include adaptive capability (ADCAP), absorptive capability (ABCAP) and innovative capability (INCAP).

### **Human Resource Management Practices**

Human Resource Management (HRM) practices include staff selection, compensation management, training and development, and performance review (Osemeke, 2012). HRM increases employees' skills and capacities as well as changes their behaviors and attitudes to achieve organizational goals (Jashari & Kutllovci, 2020). The literature review shows that human resource management practices consist of four observed variables include training and development (TRAIN), reward and compensation (REWAR), performance appraisal (PERAP) and recruitment and selection (RECRU).

### **Organizational Performance**

Organizational performance measures and analyzes results against goals and objectives (Marie et al., 2014). According to Olve et al. (2001) cooperation between organizational divisions is one aspect that contributes to organizational performance. Simon et al. (2015) argue that organizational performance should also incorporate non-financial metrics such as employee satisfaction and business process efficiency. From the literature review and analysis of organizational performance consists of three observed variables include customer satisfaction (CMSAT), employee satisfaction (EMSAT), and internal business process efficiency (INPRO).

## **Research Methodology**

This research used quantitative research method. The population was the staff working at the Airports of Thailand: staff who works at Suvarnabhumi International Airport, Don Mueang International Airport, Phuket International Airport, Chiang Mai International Airport, Hat Yai International Airport and Mae Fah Luang Chiang Rai International Airport which total of staff 6,095 (Airports of Thailand, 2022). The sample size was determined using the criteria 20 times the observed variables. This research consisted of 22 observed variables, resulting in a total of 440 samples. The stratified sampling method was used. The data were collected from questionnaires. It passed content validity with index of item objective congruence (IOC) values

ranging from 0.80-1.00. It was found that regarding the reliability of the measures, Cronbach's alpha the entire volume was 0.995. The analysis was conducted with descriptive statistic included mean and stand deviation. The mean and standard deviation were classified into 5 levels according to criteria of Best & Kahn (1993) and analysis of structural equation modeling (SEM) to test hypothesis of this research that follow conceptual framework and model fit indices as follow: (1) Relative Chi-square is less than 3 (2) Goodness fit index (GFI) greater than 0.95 (3) Adjust Goodness fit index (AGFI) greater than 0.90 (4) Comparative fit index (CFI) is 0.97-1.00 is consistency; and (5) Root means square error of approximation (RMSEA) is less than 0.050 (Diamantopoulos & Siguaw, 2000; Schumacker & Lomax, 2010).

## Research Results

### Level of Organizational Culture, Organizational Learning, Transformational Leadership, Dynamic Capability, Human Resource Management Practices, and Organizational Performance

When considering in each variable, it was found that organizational performance was in high level and it had highest level, followed by organizational learning dynamic capability, organizational culture, human resource management practices and transformational leadership, respectively.

**Table 1** Level of variables

Variable	$\bar{X}$	S.D.	Interpret
Organizational Culture	4.02	0.73	High
Organizational Learning	4.03	0.76	High
Transformational Leadership	3.92	0.84	High
Dynamic Capability	4.03	0.77	High
Human Resource Management Practices	3.95	0.85	High
Organizational Performance	4.18	0.55	High

### The Influence of Organizational Culture, Organizational Learning, Transformational Leadership, Dynamic Capability, and Human Resource Management Practices on Organizational Performance

The modification the model based on the model modification indices to make the model best fit the data. The results shown in Table 2 indicating that the indicators entered well with the data and meet the criteria of each index to enter well with the data.

**Table 2** Goodness of fit index

Indices	Criteria	Value	Result
Chi-Square/df	$\text{Chi-Square/df} \leq 3$	2.35	Qualify
GFI	$0.95 \leq \text{GFI} \leq 1.00$	0.96	Qualify
AGFI	$0.90 \leq \text{AGFI} \leq 1.00$	0.90	Qualify
CFI	$0.97 \leq \text{CFI} \leq 1.00$	0.99	Qualify
RMSEA	$0 \leq \text{RMSEA} \leq 0.05$	0.047	Qualify

## Structural Equations

$$\begin{array}{l} \text{TRLEA} = 0.92\text{RESOU}, \quad \text{Errorvar.} = 0.14, \quad R^2 = 0.84 \quad (1) \\ (0.043) \quad (0.016) \\ 20.17 \quad 8.57 \end{array}$$

Equation 1 shows that human resource management practices (RESOU) had a direct effect on transformational leadership (TRLEA) at coefficient of .92 with statistically significant at 0.05 can predict 84%.

$$\text{ORCUL} = 0.93\text{TRLEA}, \text{ Errorvar.} = 0.13, \quad R^2 = 0.87 \quad (2)$$

(0.042)                      (0.017)

23.36                      7.54

Equation 2 shows that transformational leadership (TRLEA) had a direct effect on organizational culture (ORCUL) at coefficient of .93 with statistically significant at 0.05 can predict 87%.

$$\text{OLEAR} = 0.60\text{TRLEA} + 0.29\text{ORCUL} + 0.10\text{RESOU}, \text{ Errorvar.} = 0.078, \quad R^2 = 0.92 \quad (3)$$

(0.100)            (0.069)            (0.047)                      (0.010)

6.35            4.22            2.03                      7.79

Equation 3 shows that transformational leadership (TRLEA), organizational culture (ORCUL), human resource management practices (RESOU) had direct effect on organizational learning (OLEAR) at coefficient of .60, .29, .10, respectively with statistically significant at 0.05 can predict 92%.

$$\text{DYNAM} = 0.99\text{TRLEA}, \text{ Errorvar.} = 0.019, \quad R^2 = 0.98 \quad (4)$$

(0.037)                      (0.010)

28.42                      2.90

Equation 4 shows that transformational leadership (TRLEA) had a direct effect on dynamic capability (DYNAM) at coefficient of 0.99 with statistically significant at 0.05 can predict 98%.

$$\text{OPERM} = 0.01\text{ORCUL} + 0.27\text{ORCUL} + 0.20\text{RESOU}, \text{ Errorvar.} = 0.99, \quad R^2 = 0.56 \quad (5)$$

(0.004)            (0.06)            (0.023)                      (0.12)

2.75            4.59            8.79                      8.29

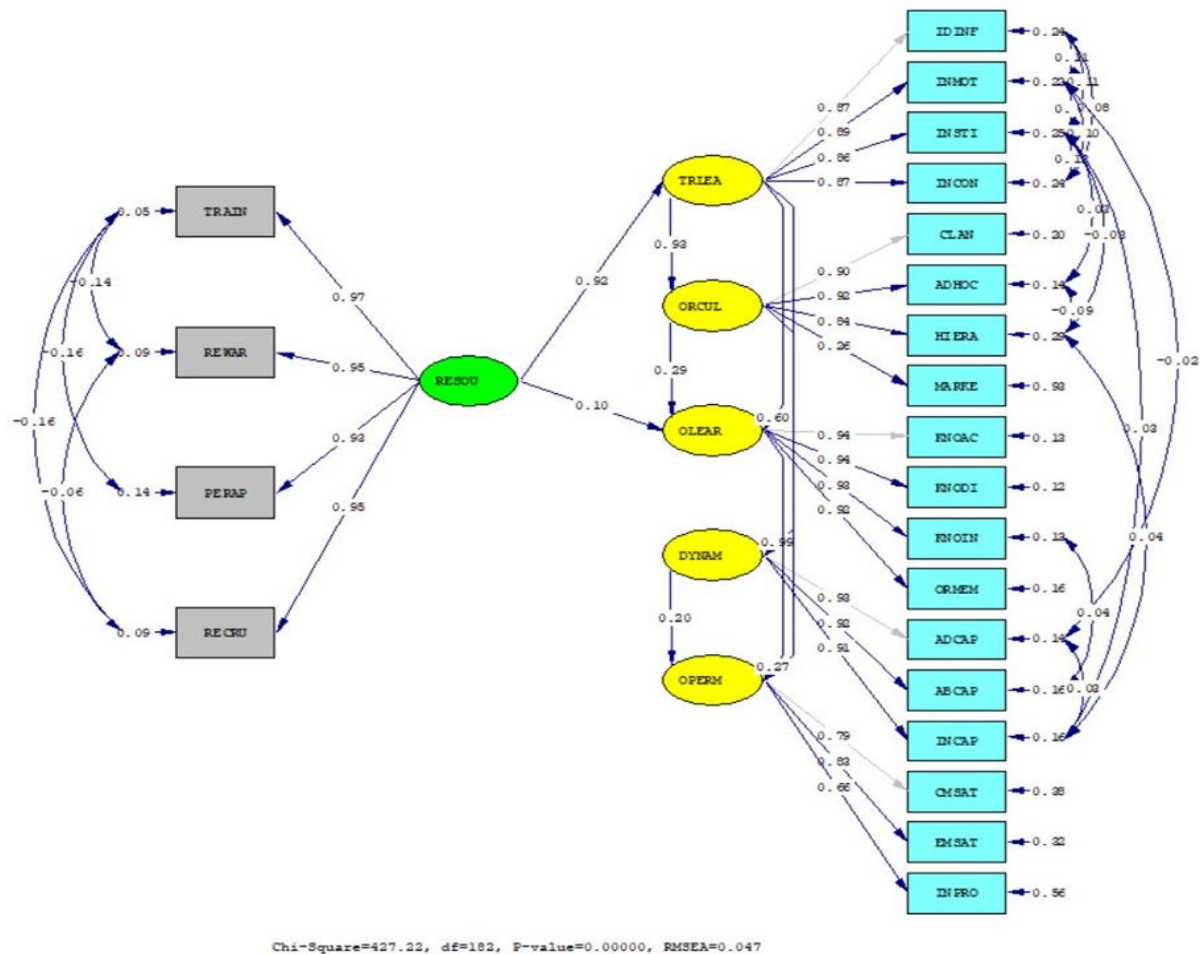
Equation 5 shows that organizational culture (ORCUL), organizational learning (OLEAR), dynamic capability (DYNAM) had direct effect on organizational performance (OPERM) at coefficient of .01, .27, .20, respectively with statistically significant at 0.05 can predict 56%.

**Table 3** Direct effect, indirect effect, and total effect of variables studies on organizational performance

Independent Variable	Dependent Variable														
	TRLEA			ORCUL			OLEAR			DYNAM			OPERM		
	TE	IE	DE	TE	IE	DE	TE	IE	DE	TE	IE	DE	TE	IE	DE
RESOU	.92	-	.92	-	-	-	.65	.55	.10	-	-	-	.22	.22	-
TRLEA	-	-	-	.93	-	.93	.87	.27	.60	0.99	-	0.99	.37	.37	-
ORCUL	-	-	-	-	-	-	.29	-	.29	-	-	-	.09	.08	.01
OLEAR	-	-	-	-	-	-	-	-	-	-	-	-	.27	-	.27
DYNAM	-	-	-	-	-	-	-	-	-	-	-	-	.20	-	.20

From Table 3, it was found that organizational culture, organizational learning, and dynamic capability have a direct influence on organizational performance, while transformational leadership and human resource management practices have indirect influence on organizational performance. Transformational leadership had the greatest overall effect on organizational performance, followed by organizational learning, human resource management practices, dynamic capability and organizational culture, respectively.

The results of the analysis structural equation modeling are shown in Figure 1.



**Figure 1** Structural equation modeling of organizational performance

## Conclusion and Discussion

Organizational performance of AOT depends on organizational culture, organizational learning, transformational leadership, dynamic capability, and human resource management practices. These 5 variables are of great importance in improving organizational performance of AOT. From the research results can be discussed as follows:

1) Organizational learning indirect influences organizational performance found that organizational learning consists of knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory consistent with Zhou et al. (2021) claim that organizational learning has three elements including knowledge transfer, creation and retention. Organizational learning links three levels involve individual, institutional and group learning which is self-learning or learning from others. Self-learning refers to learning from corrective errors and accumulate experiences. Learning from others refers to collect knowledge and advantages from others. The purpose of organizational learning is to be able to adapt to environmental changes and to be able to stay competitive. Inthavong et al. (2023) suggest that organizational learning is to rectify errors on what aspect organization does not fulfill expectations of customer through using rectification process. Then correct errors by using adopting innovation to solve the errors. During solving errors process, the entire organization is involved. This will lead organization to continue learning, innovation and improvement. Organizational learning impacts organizational performance through organizational learning is being share among employees to handle with changing customers' demands.

2) Dynamic capability indirect influences organizational performance found that dynamic capability consists of adaptive capability, absorptive capability and innovative capability

consistent with Ozanne et al. (2022) claim that dynamic capability is organization's capability to create, combine, reconfigure resources and gather external knowledge in order to stay competitive in the changing environment. Small and Medium Enterprises (SMEs) that can immediately integrate new information with their internal knowledge can respond to customer needs quickly and gather customer feedback to improve organizational processes. Teece (2016) also consider dynamic capabilities as firm's abilities to detect, transform activity of the firm and take advantage of valuable resources in which firms achieve innovative and new forms of competitive advantage. Lin & Wu (2014) suggest that high-tech firms should gather dynamic capabilities to innovate and create new products which enable firms to stay in global competition and changing industry environment.

3) Organizational culture indirect influences organizational performance found that organizational culture consists of clan culture, adhocracy culture, hierarchy culture, market culture consistent with Dwyer et al. (2003) claim that organizational culture considers as sharing beliefs that allow all members to know organizational function and give them norms of behavior within organization. Organizational culture acts as organizational control mechanism and the way for managers to stimulate solidarity. Pedraza-Rodriguez et al. (2023) claim that value system can direct behaviors and attitudes of members within organization since this value system is disseminate among employees which can be called organizational culture. Organizational culture impacts performance and motivation of employees especially new challenges to develop an innovative organization. Yilmaz & Ergun (2008) state that organizational effectiveness needs organizational culture to act as principal of organization's functioning. Organizational culture involves attitudes, beliefs, values, assumptions, and behaviors of members within organization or capabilities of organization, and it can facilitate goals achievement. Organizational culture considers as organizational capability which is valuable source to maintain competitive advantage and superior performance.

4) Human resource management practices indirect influences organizational performance pass organizational learning found that human resource management practices consist of training and development, reward and compensation, performance appraisal, recruitment and selection led firms to have high performance through using organizational learning which include knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory which consistent with Kokkaew et al. (2022) that study Thai construction firms increase organizational performance through organizational learning as HR department of Thai construction firms use to recruit their staffs with highly selective approach such as directors, civil engineers, construction managers. Many firms select engineers that study in top engineering schools in Thailand as these people are high competent people and also evaluate their performance individually which they will compete themselves to have higher performance and growth. In order to increase organizational performance by using organizational learning, Thai construction firms enact policies on knowledge transfer within team members and increase utilization of knowledge to meet construction projects objectives. Chahal et al. (2016) state that HR practices have positively influence organizational learning since to handle with new innovations and development of technology in telecommunication sector, regular training on computer-based training and job instruction need to provide for employees. This will increase employees' performance in terms of reduction in customer complaints which will lead to improvement in organizational performance. Employees can increase and update their knowledge on latest advancement in order to handle with challenges and get ready for promotions. Employees who have competences, they can think outside the box and can generate more new ideas. This will enhance organizational performance.

5) Transformational leadership indirect influences organizational performance pass dynamic capability found that transformational leadership consists of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Transformational

leaders allow organization and its member to adapt to environmental changes. This style of leadership pay attention on connection between employees and leaders through behavior of charismatic, inspire their subordinates, create intellectual stimulation and pay attention on employees individually to increase their capabilities. Companies that have dynamic capabilities can use their internal resources to response to rapid changing environments. These companies need to find out on market opportunities in order to use them to make profit. Wamalwa (2023) confirms that transformational leaders encourage and guide employees to see things with different views, question assumptions and find creative resolution to problems. They form culture of innovative, proactive and empowered. Adaptation associate with learning capabilities and learning concept which consider as dynamic capabilities source. Therefore, transformational leaders are success in applying dynamic capabilities. They tend to create, disseminate, and exploit knowledge. They also searching opportunities in the external environment in order to adapt to changes and to survive within dynamic environment. Searching opportunities can be in the form of monitoring technological development, finding customer needs and competitor response.

### **Recommendation Based on Study Results**

- 1) Executives of Airports of Thailand should allow members to participate in creating corporate culture together by setting the direction of organization culture that members agree on.
- 2) Each department should communicate clearly on discussing core business such as competitor issues, performance targets, progress on business projects, obstacles and solution.
- 3) Executives of Airports of Thailand should provide training and development to train employees in order them to perform their duties and future responsibility by develop a workforce plan.
- 4) Executives of Airports of Thailand should act as role model of employees as they are transformational leadership.
- 5) Executives of Airports of Thailand should adopt digital and technology to transform operation in the organization.
- 6) Executives of Airports of Thailand support and encourage members to express their opinions and accept different opinions of members in the organization.

### **Recommendation for Future Studies**

- 1) There should be study about the external environment that influence organizational performance on environmental issues.
- 2) There should be more study about other factors that influence organizational performance including economic and social conditions and unexpected incidents which influence operation of the organization. The organization need to adapt to this unexpected situation.

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**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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