



## Causal Model of the Airline Business's Agility in Thailand

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### Abstract

**Background and Aims:** The secret to Thailand's airline business's agility is its contribution to the industry's resilience and adaptability, which helps airlines react quickly to market shifts brought about by unanticipated disruptions, shifting regulations, and fluctuating demand. Airlines in Thailand can effectively navigate obstacles, seize new opportunities, and maintain long-term growth and profitability in a competitive and dynamic industry landscape by improving their agility. Thus, the objectives of this study aim to 1) study the causal factors between digital transformational leadership, E-HRM Practices, E-business proactiveness, innovation capabilities, and organizational agility.

**Methodology:** It employed a quantitative design by distributing questionnaires and using quota random sampling to 400 executives and airline staff from six airlines in Thailand. Data was analysed by applying Structural Equation Modeling: SEM.

**Results:** The findings showed that digital transformation leadership has a direct positive influence on innovation capabilities and organizational agility; E-HRM Practices have a direct positive influence on organizational agility; E-business proactiveness has a direct positive influence on innovation capabilities and organizational agility and innovation capabilities has a direct positive influence on organizational agility. Meanwhile, E-HRM Practices have no direct positive influence on innovation capabilities. Based on the findings, e-business proactiveness, and innovation capabilities are the most influential factors in organizational agility.

**Conclusion:** This study recommends that airline management make an improvement in manpower training and streamline innovation capabilities in their organizations.

**Keywords:** Digital Transformational Leadership; E-HRM Practices; E-Business Proactiveness; Innovation Capability; Organizational Agility

### Introduction

The aviation industry plays an important role that makes a major contribution to people's individual mobility and promotes international understanding and cultural exchange.





(CAAT., 2020) These air bridges enable the economic flows of goods, investments, people, and ideas that are the fundamental drivers of economic growth and the development of international trade operations. Between the years 2020 and 2021, According to research by Paethrangsi, et al., (2021), the aviation business in Thailand was extremely affected by the consequences of the COVID-19 pandemic. These changed the clients' behavior during the COVID-19 crisis, moreover, the restrictions on traveling and the economic crisis also have resulted in a dramatic drop in demand (Suau-Sanchez, et al., 2020; Nhamo et al., 2020; Salman et al., 2020) for airline business. Consequently, the airline business must identify opportunities for scenario development, and commercial and operational strategies to ensure rapid recovery from the pandemic during the next normal. As COVID-19 crisis affecting the world aviation industry, and has occasioned high perishability factors. All airlines try to continue their business by implementing new practices (Rimmer, 2020; Bharatish et al., 2013) in their organizations to gain sustainable competitive advantages.

This paper aims to study the relationship among digital transformational leadership, E-HRM Practices, E-business proactiveness, innovation capabilities, and organizational agility and attempt to find answers on how digital transformational leadership, E-HRM Practices, E-business proactiveness create innovation capabilities and work on organizational agility. Although organizational agility has been widely discussed no research about causal models of airline business agility in Thailand has been proposed. So, this study reveals the model to fill the research gap and presents the research methodology; results; discussion; conclusion, and recommendations.

## Objectives

This paper aimed to study the relationship between digital transformational leadership, E-HRM Practices, E-business proactiveness, innovation capabilities, and organizational agility.

## Literature reviews

### Digital transformational Leadership

Nowadays, digital transformation has become necessary for the airline business to stay competitive and relevant in today's fast-paced market, and to be a digital transformation leadership organization in the airline business requires talent management (Barkhuizen et al., 2014) and a proactive approach to innovation. (Bartsch et al., 2021) Leaders must foster a





culture that encourages experimentation, collaboration, and continuous learning to harness the full potential of digital technologies. Additionally, effective leaders must stand firm and employ reasoned thinking to care for their teams, demonstrating positivity and preparedness to tackle arising issues. (Lediju, 2016) and this is related to digitally transformative leadership traits. So, this study hypothesizes as follows.

*H1* Digital transformation leadership has a direct positive influence on organizational agility.

*H2* Digital transformation leadership has a direct positive influence on innovation capabilities.

### **Electronic Human Resource Management Practices**

Electronic Human Resource Management (e-HRM) improves HRM functions, creates dynamic and operational capabilities, and contributes greatly to organizational performance. (Khammadee, 2023). And it enhances efficiency in human resource management, allowing access to data easily. It aids in cost reduction, accelerates production efficiency, improves workplace environmental processing, and minimizes errors and overlaps, thus fostering better intra-organizational communication, and expediting processing time. The objective of e-HRM is to efficiently support human resource management to achieve goals (Bhagat, 2020). This study hypothesizes as follows.

*H3* E-HRM has a positive indirect influence on organizational agility.

*H4* E-HRM has a positive indirect influence on innovation capabilities.

### **Electronic Business Proactiveness**

E-business proactiveness initiatives in customer data collection enable airlines to promptly respond to customer inquiries and issues through real-time applications, resulting in faster service delivery. However, E-business capability alone is insufficient for achieving a superior innovation performance. (Arias-Pérez et al., 2020) E-business development of products and services helps retain customers within the organization and accelerates sales activities, both directly from airline customers and from customers of partner companies collaborating with airlines. (Li et al., 2020; Al-Omouh et al., 2020). This study hypothesizes as follows.

*H5* E-business proactiveness has a direct positive influence on organizational agility.

*H6* E-business proactiveness has a positive indirect influence on innovation capabilities.

### **Innovation capabilities**

Airline businesses experiencing continuous growth must develop differentiation and competitive advantages to meet customer needs, especially in times of rapid change or in the current VUCA (Volatile, Uncertain, Complex, Ambiguous) world. Conducting business in today's era necessitates leveraging digital technology to align with customer behavior, and utilizing data readiness to innovate options for customers continuously so innovation is a key factor to



build a business. (Khрутthamat et al, 2021; Ali et al, 2020) innovation capabilities involved the availability of sufficient organizational resources, entrepreneurial orientation, knowledge development, and external networks. This includes incorporating new technologies to ensure smooth and more efficient business operations. (Zhang, 2011; Alhassani & Al-Somali, 2022). This study hypothesizes as follows.

*H7* innovation capabilities have a direct positive influence on organizational agility.

### Organizational agility

Agility refers to the state of being quick and nimble in adapting to changes to create new directions. (Ku, 2022). Organizational agility can be defined () as the ability of organizations to quickly respond to market needs by sensing, renewing, adapting, and succeeding in a turbulent market. The concept of fostering agility began playing a role during the transition into a society increasingly reliant on digital technology for operations, enabling better coping and response to changes occurring under various crisis situations efficiently (Koçyiğit & Akkaya, 2020). Additionally, The conceptual research framework of this study is illustrated in Figure 1.

### Conceptual Framework

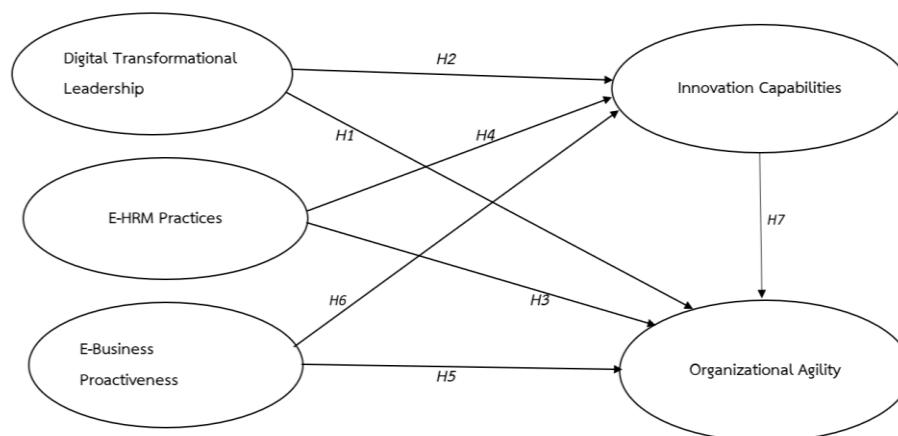


Figure 1. The conceptual framework of this study

### Methodology

This study utilized a quantitative method in which, samples and the population were executives and airline staff from 6 companies in Thailand who have working experience not less than 3 years or more. The samples were determined by quota random sampling method and the tool of this study is using questionnaire. For the study instruments: A six-part



questionnaire covering personal data, digital transformational leadership, E-HRM practices, E-business proactiveness, innovation capabilities, and organizational agility was utilized for the study. Then it was presented to five experts to verify its content validity and tested with 30 population samples that correspond to actual samples and used the Cronbach  $\alpha$  reliability coefficient, with a result of 0.85. Then, the researcher collected questionnaires by using the Line application; Electronic mail; Google Forms, and a manual for data gathering. Referred to the concepts of Schumacker & Lomax, 2010 and Hair et al., 2010 which state that confirmatory component analysis should have a sample size equal to 10-20 times the observed variable. The sample is equal to 20 times of 18 observed variables, so the sample size is at least 360 samples, and this research sample of 400 samples was used. To analyze the collected data used the mean, standard deviation, and percent applicable. After that, a structural equation model (SEM) to examine the data.

## Results

The study showed the analyzed data of the correlation of digital transformational leadership, E- HRM Practices, E- business proactiveness, innovation capabilities, and organizational agility in Table 1.

**Table 1.** The Correlations

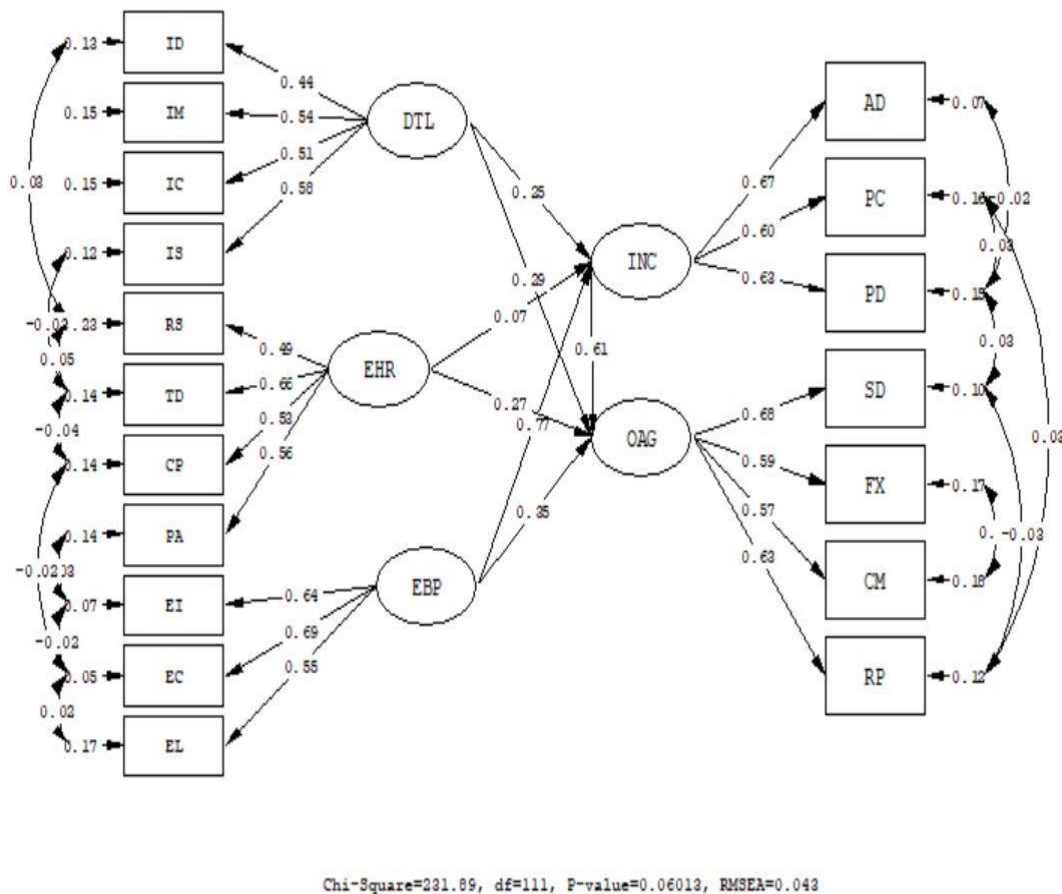
Variables	DTL	EHR	EBP	INC	OAG
Digital transformational leadership	1.000				
E-HRM practices	0.781**	1.000			
E-business proactiveness	0.766**	0.843**	1.000		
Innovation capabilities	0.737**	0.767**	0.817**	1.000	
Organizational agility	0.762**	0.734**	0.816**	0.857**	1.000
$\alpha$	0.842	0.839	0.904	0.848	0.896
AVE	0.579	0.518	0.596	0.502	0.583

\*\*p < .05

Based on Table 1, the findings indicate that the tested variables have Average Variance Extracted (AVE) values ranging from 0.502 to 0.596, exceeding 0.50, (Hair et al., 2010) which demonstrates convergent validity between 0.712 and 0.768, surpassing 0.70. Furthermore, the



Composite Reliability: CR) of digital transformational leadership was (CR=0.705); E- HRM Practices was (CR=0.748); E-business proactiveness was (CR=0.761); innovation capabilities were (CR=0.768); and organizational agility was (CR=0.712); which range from 0.705 to 0.768. Additionally, The summary data of confirmatory factor analysis is shown in Figure 2.



$\chi^2 = 221.89$ ,  $df = 111$ ,  $\chi^2/df = 2.089$ ,  $RMSEA = 0.042$ ,  $NFI = 0.99$ ,  $CFI = 0.99$ ,  $GFI = 0.93$ ,  $SRMR = 0.025$

Figure 2. The relation and effect of the research model after an adjustment

Data analysis to look at the relationships between the variables in the suggested model revealed that every variable had passed the criteria. According to Figure 2, data presented the results of the analysis were  $\chi^2 = 221.89$ ,  $df = 111$ ,  $\chi^2/df = 2.089$ ,  $RMSEA = 0.042$ ,  $NFI = 0.99$ ,  $CFI = 0.99$ ,  $GFI = 0.93$ ,  $SRMR = 0.025$  which consistent harmonized with the empirical data and It can be explained by the internal latent variables to the internal observable variables (Hair



et al., 2010) and from the external latent variables to the external observable variables and The results of this hypothesis test shown in Table 2.

Table 2. Results of hypothesis testing

Hypotheses	Path		Std.Beta	t-value	Result
<i>H1</i>	DLT ORG	➔	0.29*	1.97	Accepted
<i>H2</i>	DLT INC	➔	0.25**	3.20	Accepted
<i>H3</i>	EHR OAG	➔	0.27*	2.49	Accepted
<i>H4</i>	EHR INC	➔	0.07	0.41	Rejected
<i>H5</i>	EBP OAG	➔	0.35***	5.90***	Accepted
<i>H6</i>	EBP INV	➔	0.77***	7.00	Accepted 7.33***
<i>H7</i>	INC OAG	➔	0.61***		Accepted

Note: DTL (digital transformational leadership); HER (E-HRM Practices);

EBP (E-business proactiveness); INC (innovation capabilities); OAG (organizational agility)

According to Table 2, the analysis result showed digital transformation leadership has a direct positive influence on innovation capability and organizational agility. (*H1*, *H2*) were accepted with ( $\beta=0.29^*$ ,  $0.25^{**}$ ,  $t=1.97$ ,  $3.20$ ), *H3* E-HRM has a positive direct influence on organizational agility was accepted with ( $\beta =0.27^*$ ,  $t=2.49$ ), meanwhile, *H4* E-HRM has a positive direct influence on innovation capabilities was rejected with ( $\beta =0.07$ ,  $t=0.41$ ), (*H5*, *H6*) E-business proactiveness has a direct positive influence on innovation capabilities and organizational agility was accepted with ( $\beta=0.35^{***}$ ,  $0.77^{***}$ ,  $t=5.90^{***}$ ,  $7.00$ ), and *H7* innovation capabilities has a direct positive influence on organizational agility was accepted with ( $\beta =0.61^{***}$ ,  $t=7.33^{***}$ ) respectively. Therefore, The finding showed that *H4* E-HRM does not influence innovation capabilities. Meanwhile, *H1*, *H2*, *H3*, *H5*, *H6*, and *H7* of the study were accepted, and finally, the explanation of the discussion and conclusion are presented below.

## Discussion

This study investigates the causal factors of digital transformational leadership, E-HRM practices, E-business proactiveness, Innovation capabilities, and Organizational agility were



affect the airline business agility in Thailand. The study found Firstly, there are two most significant factors of digital transformational leadership are 1) intellectual stimulation and 2) inspirational motivation. Secondly, There are two most significant factors for E-Hrm Practices E-Training and E- Performance Appraisal. Thirdly, There are two most significant factors of E-Business Proactiveness E-commerce and E-business intelligence. Fourthly, There are two most significant factors of innovation capabilities product and administrative innovation. Lastly, There are two most significant factors of organizational agility are speed and responsiveness. Therefore, the results indicators conceptual model presented the results of the analysis were  $\chi^2 = 221.89$ ,  $df = 111$ ,  $\chi^2/df = 2.089$ , RMSEA = 0.042, NFI = 0.99, CFI = 0.99, GFI = 0.93, SRMR = 0.025 which consistent harmonized with the empirical data. For hypothesis testing of *H1-H7*, Results found that *H1, H2, H3, H5, H6, and H7* were accepted which is consistent with research that digital transformational leaders drive change by inspiring and empowering their teams to embrace innovation, leverage emerging technologies, and adapt to new ways of working (Hosna et al., 2021). This aligns well with the principles of organizational agility, which emphasizes flexibility, responsiveness, and the ability to pivot in the face of uncertainty (Teece et al., 2016). Strong dynamic capabilities are necessary for fostering the organizational agility necessary to address deep uncertainty, such as that generated by innovation and the associated dynamic competition. According to (Avolio et al., 2004) transformational leaders empower followers to explore new ideas, question assumptions, and pursue novel approaches, thereby enhancing an organization's innovation potential. Therefore, digital transformational leadership indirectly influences organizational agility through its positive impact on innovation capabilities, highlighting the critical role of leadership in driving organizational adaptability and resilience in the digital age. According to (Doz & Kosonen, 2007) innovation capabilities encompass a range of competencies, including the ability to scan the external environment for potential disruptions, foster collaboration across diverse teams, and iterate on ideas quickly. innovation capabilities enable organizations to respond swiftly to changes in the competitive landscape, customer preferences, and technological advancements, thereby enhancing their agility (Bharatish et al., 2013; Li & Huang., 2020). This highlights the significant impact of e-business proactiveness on organizational agility. Meanwhile, *H4* E-HRM has a positive direct influence on innovation capabilities was rejected, (khammadee, 2023) found that E-HRM practices indirectly through sustainable competitive







advantage influences organizational performance and Nisara et al (2023) found innovation on airline performance outcomes is perceived as the least important compared to leadership, workforces, and technology capabilities. However, Alqarni et al (2023) suggested that E-HRM practices contribute to a sustainable competitive advantage by fostering sustainable innovation and bolstering organizational agility, both of which are integral elements of an organization's dynamic capabilities.

### Recommendation

Based on the research findings, this study recommends airline managements 1) drive intellectual stimulation and promote inspirational motivation; 2) implement E-Training and E-Performance Appraisal in HRM systems in their organizations; 3) apply E-commerce and E-business intelligence to gain competitive advantages in business operations 4) stimulating innovation capabilities both of product and administrative innovation to streamline their organizations, and Lastly, 5) focusing on speed and responsiveness in business competition. In addition to this study, They should consider the importance of human capital by aiming at training and developing their employees by implementing new technology to leverage service quality. In addition to this study, airlines the efficient and safer electronic operational systems in the airline business, as well as online media, applications, or other platforms to facilitate convenient and swift access to airline products and services for airline customers. Consequently, airlines have rapidly adapted to changing contexts and swiftly integrating new technologies for management and services. Finally, airline management should review the incorporation of technology into marketing strategies, particularly in e-business proactiveness endeavors. This includes aiming to expand aviation partnership networks, merging mutual benefits, and actively pursuing rapid responsiveness to meet demands and prioritize customer satisfaction, moreover, they should conduct aggressive policies to promote more E-commerce and E-business intelligence to create an agile organization in their airline. Future research should consider the research gap on other variables influencing the airline business's key success in response to the fast-changing world.





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