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Employee Engagement as a Mediator between Employee Experience and Perceived Organizational Performance for Sustainable Airport Operations after the Covid-19 Crisis: A Multigroup Analysis

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Abstract
This study examines the mediating role of employee engagement on the relationship between employee experience and perceived organizational performance for sustainable airport operations after the COVID-19 crisis. Multigroup analysis was utilized to explore possible differences in this relationship between managers and employees. Stratified random sampling was used to select samples from six airports in Thailand. Data were collected via questionnaire from 552 participants, divided into 276 managers and 276 employees. A measurement invariance approach was implemented to verify that the measurement used in this study works the same for both groups. Multigroup structural equation modeling was applied to analyze the hypotheses. Results revealed that employee experience had a significantly positive and direct effect on organizational performance and employee engagement. However, employee engagement did not have significantly direct and indirect effects on organizational performance. Therefore, employee engagement did not perform as a mediator in this relationship. In addition, no significant differences were found between the groups of managers and employees under this relationship. These findings are noteworthy for airports to focus on employee experience across groups to redesign and continuously transform airports into sustainable airport operations after the COVID-19 crisis in the right direction.

Keywords: Employee engagement, Employee experience, Organizational performance, Sustainable airport operations, COVID-19 crisis

1. Introduction

For organizations to achieve sustainability, they must retain their operational capabilities during adverse events (Smith & Sharicz, 2011). Although crises can present unexpected and formidable challenges to airports, they also offer opportunities for airports to demonstrate flexibility and adaptiveness with the changing circumstances. Airports that effectively manage crises, such as the COVID-19 pandemic, through flexibility and adaptability can potentially achieve sustainable organization. The COVID-19 crisis led to a severe reduction in air travel, resulting in the loss of approximately 46 million jobs supported by aviation around the world (Airport Council International, 2020). In addition, the crisis has left the remaining employees with issues of job security uncertainties and low morale.

These issues may directly or indirectly affect the organizational work environment and the overall performance standards of all airport employees. A survey revealed that according to company executives, the COVID-19 pandemic has affected their organizational performance, with 46% of the respondents expecting a decline in their 2020 performance targets (Caligiuri et al., 2020). In line with the objective of sustainable tourism, a focus of the Sustainable Development Goals aimed by 2030 (UN, 2015), the airport industry must engage in encouraging and supporting employees at all levels to develop their potential and keep up the standard to maintain airports' reputation and customers' satisfaction. Enhancing individual employee effectiveness is crucial to achieving organizational goals (Astuti et al., 2020; Pradhan et al., 2017). Therefore, for airports to successfully transition to sustainable operations post-crisis, they must pay attention to various factors that drive efficient and productive organizational performance.

In Thailand, since the Civil Aviation Authority of Thailand announced the temporary ban on all international flights to Thailand in April 2020, the air traffic volume from six airports under the management of the Airport of Thailand Public Company Limited (AOT) decreased by 42.51%, the total number of passengers reduced by 48.80%, and the net profit decreased by 82.74% compared with the previous year (AOT, 2020). Significant changes in the number of employees were also observed within three years during the COVID-19 outbreak. In 2022, the number of employees was about 3.14% lower than that in 2021 and 9.69% lower than that in 2020 (AOT, 2022). Nevertheless, as the pandemic situation was starting to recover in 2022, the number of flights and passengers increased by 60.84% in aircraft movements, the number of passengers rose by 133.35%, and the number of inbound and outbound air cargo and postal parcel increased by 12.35% in the six airports (AOT, 2022).

The concept of "hierarchical position" refers to the formal position of stakeholders in an organization based on the organizational hierarchy, emphasizing managerial employees and nonmanagerial employees as key stakeholders (Lilova & Poell, 2019). Given their different backgrounds, educational levels, and job responsibilities, managers and employees may view social and organizational environment differently (Patti et al., 2004). Therefore, airports need to focus on fostering positive working experiences across employee categories, thereby enhancing their dedication to their roles, teams, and the organization. This approach is critical for airports aiming to succeed in the reinvented sector and advance toward achieving sustainable operations post-COVID-19.

In summary, this study aims to examine the relationship between employee experience, employee engagement, and organizational performance for sustainable airport operations after the COVID-19 crisis by focusing on employee engagement as a potential mediator. It also aims to explore the possible differences between managers and employees under this relationship. Given the limited research on the mechanism under this context and the tendency of existing studies to focus on either managerial or nonmanagerial groups exclusively, this research aims to close the methodology gap of this underlying mechanism in the airport industry, especially in Thailand.

2. Literature Review

- Relationship between Employee Experience and Organizational Performance

For a performance-driven organization, the entire goals, strategies, and objectives of all levels must be aligned to achieve high level of organization (Stiffler, 2006). Organizational performance, often seen as the achievement of organizational objectives and goals, is typically determined by the outputs of an organization's operations (Mehmood et al., 2014). In the past, organizations primarily focused on profitability, products, and shareholder values as measures of organizational success (Nawaz & Koc, 2019). However, contemporary trends have turned

organizations' focus into social objectives and environmental sustainability to create value for other stakeholders, in addition to shareholders (Garcia et al., 2016). Therefore, organizational sustainability has become a key component for any operational model of organizations today (Zawawi & Wahab, 2019).

The principle of sustainable organization emphasizes long-term functionality without compromising future capabilities (Boudreau & Ramstad, 2005; Colbert & Kurucz, 2007), focusing on societal, economic, and environmental considerations (Chartered Institute of Personnel and Development, 2012). Given the significant role of airports in transportation and tourism industries, their performance is vital for strengthening global economies, especially after the COVID-19 crisis. Zawawi and Wahab (2019) and Dimitriou and Karagkouni (2022) integrated the concept of triple-bottom-line approach with airport performance and proposed the three criteria of sustainable airport performance: social, economic, and environmental performance. This integrated concept can help airports standardize their performance to achieving sustainable airport operations.

The concept of employee experience, which encompasses positive and negative aspects of work, is not a novel idea (Bridger & Gannaway, 2021). However, its potential and importance have gained increased attention among organizations in the current time (Maylett & Wride, 2017), particularly as the COVID-19 crisis led to sudden changes in the workforce and workplace, presenting challenges for organizations to engage and motivate their employees toward purposeful and meaningful work (Panneerselvam & Balaraman, 2022). As Bridger and Gannaway (2021) explained, given that individual experiences vary, considering the unique nature of employee experience can help organizations avoid a one-size-fits-all approach and create optimal experiences for every employee.

In conclusion, the challenge for organizations nowadays, particularly in the aftermath of the crisis, is to reinvent and craft an appropriate environment for their employees that nurtures a positive employee experience. Organizations are expected to focus on the design thinking and reinvention of their employees' experience. Therefore, the concept of positive employee experience has turned into a new contract between employees and organizations. The success of organizations in the competitive global economy depends on understanding and enhancing employee experience (Bersin et al., 2017b). This aspect is relevant to social exchange theory (Blau, 1964), which suggests that when employees perceive a high positive experience from their organization, then they are likely to feel appreciated, and, in turn, become motivated to reciprocate with positive work behaviors (Nasurdin et al., 2018). On this basis, the following hypothesis is set.

Hypothesis 1: Employee experience is positively associated with organizational performance.

- Mediating Role of Employee Engagement

Kahn's (1990) work on personal engagement and disengagement at work enlightened and attracted researchers and practitioners all over the world to understanding employee engagement. Employee engagement is all about employees doing meaningful works that facilitate growth and meet their expectations, even when faced with difficult, exhausting, and challenging tasks (Maylett & Wride, 2017). These aspects can be strongly supported by two-factor theory (Herzberg, 1959) and expectancy theory (Vroom, 1964). However, Morgan (2017) noted that several different perspectives emphasize the importance of creating a positive work environment to keep employees engaged and motivated in their works. This finding has shifted the employee-centric approach from employee engagement to employee experience (Morgan, 2017).

This evolution raises the question: Should employee engagement be replaced by employee experience? This question has captured the intention of many researchers, given that both concepts focus on an employee-centric approach. However, Gallup (2018) urged that employee experience and employee engagement are interrelated, with employee experience serving as a factor for achieving sustainable employee engagement. Accordingly, Tucker (2020) stated that employee experience and employee engagement are not replacements for each other but rather a continuation. Morgan (2017), Plaskoff (2017), and Itam and Ghosh (2020) also described that these concepts can be examined through a cause-and-effect lens, where a positive employee experience leads to increased employee engagement. Similarly, Bridger and Gannaway (2021) revealed that designing the right employee experience is crucial for achieving employee engagement. On the basis of these insights, a hypothesis is developed as follows.

Hypothesis 2: Employee experience is positively associated with employee engagement.

Throughout academic and organizational fields, the concept of employee engagement has been extensively studied, yielding comparable outcomes, such as organizational commitment, intrinsic motivation, and job involvement (Bhatnagar, 2007; Saks, 2006). Given its multitude of positive outcomes, employee engagement has become an essential element in today's highly competitive and dynamic business environment (Rana & Chopra, 2019). Especially at a time when modern organizations are shifting toward a sustainability model, the importance of connecting with and engaging stakeholders to drive productivity and satisfaction is paramount (Gupta et al., 2019). In other words, engaged employees are important resources for organizations due to their efforts and contributions. Therefore, a hypothesis is set accordingly.

Hypothesis 3: Employee engagement is positively associated with organizational performance.

The association of employee experience, employee engagement, and organizational performance is a closed loop and ongoing process of the interaction between employees and organizations (Morgan, 2017). Several studies have also observed that when organizations create a positive and supportive environment for the workplace, employees can have an enjoyable work experience, which can lead to a positive feeling of engagement and productive organizational performance (Berberoglu, 2018; Woznyj et al., 2019). Accordingly, Itam and Ghosh (2020) and Morgan (2017) identified the mediating role of employee engagement in the relationship between employee experience and competitive advantage. Many studies have supported the role of employee engagement as a mediator for employee experience and organizational performance, leading to effective outcomes (Biswas & Bhatnagar, 2013; Nasudin et al., 2018; Sulea et al., 2012). On the basis of the existing literature, a hypothesis is developed as follows.

Hypothesis 4: Employee engagement mediates the relationship between employee experience and organizational performance.

Finally, given the heterogeneous natura of populations, relying on a single homogenous population as a basis for research assumptions is unrealistic (Cheah et al., 2020). This reason highlights the importance and value of conducting group comparisons (Cheah et al., 2023). According to the concept of hierarchical position, managerial and nonmanagerial employees are the key stakeholders in an organization (Lilova & Poell, 2019). Sánchez-Vidal et al. (2012) explained that recognizing different perspectives is an important and relevant concern for organizations as different perceptions of managers and employees influence decisions, actions, and behavioral outcomes. Thus, understanding the perception gap between managers and employees is beneficial for organizations in the reinvented sector for sustainable airport operations. Therefore, the following hypothesis is set.

Hypothesis 5: Differences exist between managers and employees under this relationship.

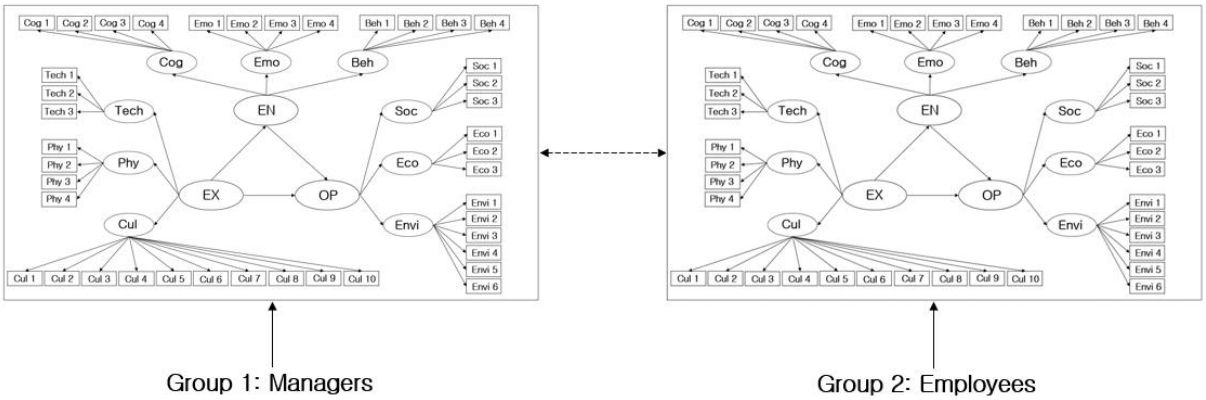

Figure 1: Conceptual Framework

3. Research Methodology

- Participants

This study focused on a target population comprising managers (Levels 7–10) and employees (Levels 3–6) currently working at airports under the AOT. The AOT oversees six international airports, namely, Suvarnabhumi Airport, Don Mueang International Airport, Chiang Mai International Airport, Mae Fah Luang–Chiang Rai International Airport, Hat Yai International Airport, and Phuket International Airport. As of 2022, the collective workforce of managers and employees across these airports was approximately 6,580 individuals (AOT, 2022). Multigroup structural equation modeling was used to analyze the data in this research (Muthen & Muthen, 2007), and a sample size of 100 or more per group was deemed adequate for ensuring validity (Hair et al., 2010). Stratified random sampling was utilized for sample selection from each airport, assuming that every department within airports had the same sampling fraction. Then, managers and employees in the departments were randomly selected using simple random sampling as samples to represent the same proportion that existed in the population.

Initially, permissions for questionnaire distribution were sought and obtained from the general managers of the airports. Subsequently, managers and employees were randomly selected and invited to participate in the study. Those who consented were then scheduled for a session to complete the questionnaire. The data collection process was strictly implemented to, as detailed in the manual for data collection, and representatives assigned to collect data at each airport underwent training by the researcher to ensure standardized procedures as outlined in the manual. Questionnaires were primarily distributed in paper format, but electronic versions (via Google Forms) were made available for participants preferring that format. For participants unable to attend the scheduled session, alternative private sessions were arranged at their convenience to ensure full participation and uniformity in the data collection process. To minimize missing data, completed questionnaires were checked for completeness immediately upon return. Notably, participant anonymity and voluntary participation were maintained throughout, in line with ethical principles governing human research.

As a result, 605 questionnaires were collected; following data screening and cleaning, 552 responses were deemed usable for analysis, evenly divided between 276 managers and 276 employees. The demographic profiles of the respondents are presented in Table 1.

Table 1: Demographic Profiles of Respondents

	Manager		Employee	
	n	**%**	**n**	**%**
Age (year)				
Less than 30 (Gen Z)	0	0	41	15.0
30 – 44 (Gen Y)	71	25.7	198	71.0
45 – 60 (Gen X)	205	74.3	37	14.0
Gender				
Female	123	44.6	146	52.9
Male	153	55.4	128	46.4
Others	0	0	2	0.7
Level of education				
Lower than Bachelor's degree	22	8.0	24	8.7
Bachelor's degree	133	48.2	166	60.1
Master's degree	120	43.5	83	30.1
Doctor's degree	1	4.0	3	1.1
Work tenure (year)				
Less than 5	3	1.1	56	20.3
5 - 14	42	15.3	170	61.6
15 - 24	104	37.3	39	14.1
25 - 34	116	42.0	11	4.0
More than 34	11	3.9	0	0
Work location				
Suvarnabhumi Airport	71	25.7	71	25.7
Don Mueang International Airport	53	19.2	53	19.2
Chiang Mai International Airport	20	7.2	20	7.2
Mae Fah Luang – Chiang Rai International Airport	46	16.7	46	16.7
Hat Yai International Airport	46	16.7	46	16.7
Phuket International Airport	40	14.5	40	14.5
Organizational department				
Airport administration	25	9.1	25	9.1
Planning and budgeting	9	3.3	9	3.3
Accounting, finance, and commercial operations	26	9.4	26	9.4
Airport supply	10	3.6	8	2.9
Airside operations	20	7.2	22	8.0
Security	29	10.5	28	10.1
Rescue and firefighting	20	7.2	20	7.2
Landside operations	24	8.7	24	8.7
Customer services	4	1.4	4	1.4
Special affairs and community relations	7	2.5	5	1.8
Electrical and mechanical	9	3.3	9	3.3
Airfield and building	10	3.6	10	3.6
Baggage handling system	5	1.8	5	1.8
Transportation management	5	1.8	5	1.8
Public transportation management	5	1.8	5	1.8
Air cargo management	5	1.8	5	1.8
Aerodrome standards and occupational health	26	9.4	25	9.1
Service quality management center	11	4.0	14	5.1
Legal and human resources	7	2.5	7	2.5
Maintenance	19	6.9	20	7.2
Total	276	100	276	100

Note: N = 552

- Measurement

A set of self-administered questionnaires was used in this study. The index of item-objective congruence (IOC) was implemented to evaluate the content validity. The items with an index value of less than 0.67 were reworded or rewritten based on the experts' evaluations (Turner & Carlson, 2003). The questionnaire was rated according to a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). As the questionnaire was conducted in Thai, translation of this questionnaire by competent bilinguals from the original English language was used following the back-translation method (Brislin, 1970). The reliability was .97 which is considered excellent as it is higher than expected value (Cronbach, 1951).

Employee experience (EX) was measured with a 17-item questionnaire adapted from Morgan's (2017) employee experience index divided into three categories of technological, physical, and cultural environment. Sample statements are The technology is available to me, My airport offers flexible working options, My airport treats me fairly. Employee engagement (EN) was measured with a 12-item questionnaire developed from Shuck et al.'s (2017) employee engagement scale consisted of three components, namely cognitive, emotional, and behavioral engagement. Sample statements are I am really focused when I am working, I care about the future of my airport, I am willing to put in extra effort without being asked. Organizational performance (OP) was measured with a 12-item questionnaire developed from the concepts of general organizational performance, airport performance indexes, and sustainable airport approach. This new development of perceived organizational performance index focused on sustainable airport performance divided into three dimensions, namely social, economic, and environmental performance.

Social performance was adapted from Balmer and Wilkinson (1991), Gray and Balmer (1998), Jones (1995), Lee and Park (2016), Patel et al. (2002), Porter and Kramer (2002), and Seifert et al. (2004). Economic performance was adapted from Armstrong and Collopy (1996), Lee and Park (2016), and Montgomery and Wernerfelt (1991). Lastly, environmental performance was developed from Dimitriou and Karagkouni (2022) and U.S. Government Accountability Office (2010). Sample statements are My airport participates actively in community service activities, At my airport, profitability has increased for the past three years, My airport reduces emissions of local air pollutants. Control variables were selected similarly to those in the previous studies on organizational performance (Berberoglu, 2018; Syahchari et al., 2021), namely age, gender, level of education, work tenure, work location, and organizational department.

4. Findings

- Measurement Model Analysis

The measurement model met the expected fit criteria at RMSEA = .054, CFI > .931, TLI > .913, SRMR < .064, and p-values of X2 = 0.000 (Hair et al., 2010). The factor loadings were exceeded .5, composite reliability (CR) was above .7, average variance extraction (AVE) was higher than .5, and t-values was more than 1.96 (Hair et al., 2010). The Cronbach's alpha of all variables was above expected value ($\alpha > .80$) (Cronbach, 1951). Therefore, this result satisfied the requirement of model fit criteria, reliability, and discriminant validity of the construct variables. The values of all variables are indicated in Table 2.

Table 2: Measurement Model Indicators

Variables	Factor loading	R^2	S.E.	t	α	CR	AVE
Technical environment				.864	.841	.639	
Tech1	.802***	.643	.021	38.253			
Tech2	.782***	.611	.022	35.909			
Tech3	.813***	.661	.021	39.167			
Physical environment				.855	.817	.528	
Phy1	.692***	.479	.027	25.912			
Phy2	.681***	.463	.028	24.674			
Phy3	.783***	.614	.025	30.946			
Phy4	.747***	.557	.027	27.271			
Cultural environment				.843	.901	.509	
Cul1	.664***	.441	.026	25.602			
Cul2	.738***	.545	.022	33.896			
Cul3	.746***	.557	.021	35.436			
Cul4	.728***	.530	.022	32.508			
Cul5	.645***	.416	.027	23.792			
Cul6	.754***	.569	.021	36.445			
Cul7	.704***	.496	.024	29.695			
Cul8	.641***	.411	.027	23.627			
Cul9	.653***	.427	.027	24.614			
Cul10	.631***	.398	.028	22.623			
Cognitive engagement				.857	.749	.507	
Cog1	.615***	.378	.032	19.087			
Cog2	.716***	.513	.028	25.634			
Cog3	.676***	.457	.029	23.113			
Cog4	.605***	.366	.032	19.000			
Emotional engagement				.852	.851	.589	
Emo1	.767***	.588	.022	35.423			
Emo2	.804***	.646	.019	41.976			
Emo3	.761***	.579	.021	35.584			
Emo4	.736***	.542	.023	32.311			
Behavioral engagement				.857	.899	.691	
Beh1	.749***	.561	.021	35.408			
Beh2	.892***	.795	.013	70.683			
Beh3	.859***	.737	.015	57.110			
Beh4	.817***	.667	.018	46.245			
Social performance				.862	.849	.653	
Soc1	.730***	.533	.027	26.652			
Soc2	.834***	.696	.022	38.047			
Soc3	.854***	.729	.021	41.245			
Economic performance				.893	.845	.651	
Eco1	.845***	.713	.019	44.099			
Eco2	.916***	.839	.018	50.982			
Eco3	.632***	.399	.029	21.794			
Environmental performance				.858	.912	.637	
Envi1	.728***	.529	.022	33.724			
Envi2	.874***	.763	.014	63.764			
Envi3	.881***	.777	.012	76.089			
Envi4	.875***	.765	.014	64.009			
Envi5	.652***	.425	.026	25.156			
Envi6	.748***	.560	.020	37.008			

Variables	Factor loading	R^2	S.E.	t	α	CR	AVE
	X^2	df	RMSEA	CFI	TLI		SRMR
Measurement model	1921.873***	743	.054	.931	.913		.064
Fit criteria	-	-	<.07	>.92	>.90		<.08

Note: N = 552. ***$p < .001$

To eliminate common method biases, common latent factor (CLF) was conducted. The standardized regression weight of all items from unconstraint model (estimate with CLF) and constraint model (estimate without CLF) were compared for the estimated differences. As a result, the method biases were not existed as all differences were not larger than .2 (Afthanorhan et al., 2021; Archimi et al., 2018). Then, the measurement invariance approach was applied to checked that the measurement works the same for both groups (Cheung & Rensvold, 2002; Platania et al., 2022). According to Chen (2007), the differences of fit indexes were congruent with the threshold values given invariance among both groups as indicated in Table 3.

- Descriptive Statistics

The results in Table 4 showed descriptive statistics and correlation matrix for the study variables. There were significant and positive correlations among all observable variables. Particularly, emotional engagement and behavior engagement (r = .696, $p < .001$) and physical environment and cultural environment (r = .686, $p < .001$) were high correlation. Besides, it is interesting to note that economic performance had low correlations with all observable variables especially social performance (r = .170, $p < .001$) and physical environment (r = .186, $p < .001$).

Table 3: Measurement Invariance

Model	X^2	df	Δ X^2	Δ df	CFI	Δ CFI	RMSEA	Δ RMSEA	SRMR	Δ SRMR
Configural	2657.522***	1347	-	-	.917	-	.059	-	.063	-
Metric	2739.419***	1379	81.897	32	.914	-.003	.060	.001	.073	.010
Scalar	2826.111***	1411	86.692	32	.911	-.003	.060	.000	.076	.003
Fit criteria										
Level 1	-	-	-	-	-	<-.010	-	<.015	-	<.030
Level 2	-	-	-	-	-	<-.010	-	<.015	-	<.010

Note: N = 552; n1 = 276, n2 = 276. ***$p < .001$.

- Hypothesis Testing

Structural Equation Model Analysis

Table 5 and Figure 2 demonstrated the results of structural equation model that met the fit criteria at X^2 = 1921.873, df = 743, p = .000, RMSEA = .054, CFI = .931, TLI = .913, SRMR = .064 (Hair, 2010). As a results, employee experience had significant and positive direct effect on organizational performance (β = .692; $p < .001$) and employee engagement (β = .857; $p <$ .001). Accordingly, hypothesis 1 and 2 were accepted respectively. Moreover, employee experience can explain 73% of the relationship with employee engagement (R^2 = .734; $p <$ .001). Then, employee experience and employee engagement can explain 66% of the

relationship with organizational performance (R^2 = .660; p < .001). On the other hand, employee engagement had a nonsignificant direct effect on organizational performance (β = .138; p > .05) given rejection on hypothesis 3.

Moreover, the findings revealed a nonsignificant indirect effect of employee engagement on organizational performance (β = .118; p > .05). Therefore, there was no mediating effect of employee engagement on the relationship between employee experience and organizational performance. As such, hypothesis 4 was rejected.

Multigroup Structural Equation Model Analysis

To verify the group differences, first of all, each group was separated to check whether there were substantial differences in their structural relationships. Table 6 demonstrated the results of structural equation model of both groups. Table 7 showed that the individual pathway of the two models were consistent. The results also suggested that there were nonsignificant direct effect of employee engagement and organizational performance in both structural models. Then, the structural invariance between both groups was tested to confirm the invariance of the structural model. The multigroup path coefficients invariance is implemented to evaluate the differences between X^2 of both configural model (free parameters) and equivalence of direct effects model (constrained direct effects). As a results, there were nonsignificant differences of X^2 from both models (X^2 .05,3 = 7.815) (Wonnacott & Wonnacott, 1982) given invariance of the multigroup structural equation model as indicated in Table 8. Therefore, hypothesis 5 was rejected.

Table 4: Descriptive Statistics and Correlations

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	-														
2. Gender	.123**	-													
3. Level of education	-.073	-.178**													
4. Work tenure	.857**	.070	-.113**	-											
5. Work location	-.023	.065	-.210**	.030	-										
6. Organizational department	-.003	.157**	-.030	-.036	.026	-									
7. Technical environment	.085*	-.036	-.006	.084*	-.001	-.007	-								
8. Physical environment	.142**	.056	-.104*	.116**	.079	-.070	.628**	-							
9. Cultural environment	.069	.091*	-.080	.070	.063	.082	.545**	.686**	-						
10. Cognitive engagement	.001	.042	-.040	.055	.107*	-.045	.393**	.454**	.631**	-					
11. Emotional engagement	.170**	.021	-.074	.190**	.047	.037	.386**	.538**	.735**	.639**	-				
12. Behavior engagement	.063	.046	-.065	.107*	.108*	-.050	.364**	.446**	.585**	.653**	.696**	-			
13. Social performance	.038	-.021	-.017	.057	.047	.001	.395**	.425**	.570**	.457**	.509**	.453**	-		
14. Economic performance	-.034	.100*	-.107*	-.004	.051	.032	.186**	.254**	.310**	.244**	.236**	.243**	.170**	-	
15. Environmental performance	.123**	.028	-.047	.148**	-.076	-.004	.444**	.453**	.571**	.432**	.457**	.402**	.547**	.336**	-
Mean	42.87	1.52	2.30	15.85	3.23	9.24	3.91	3.82	4.02	4.26	4.40	4.23	4.10	3.59	3.96
Std. Deviation	9.30	.51	.63	9.60	1.82	6.13	.61	.69	.58	.53	.56	.63	.65	.80	.64
Skewness	.048	.018	-.142	.415	.148	.422	-.146	-.301	-.555	-.552	-.749	-.498	-.240	-.396	-.157
Kurtosis	-1.100	-1.793	-.431	-.987	-1.444	-1.177	-.128	-.356	-.132	.135	-.031	-.253	-.485	.375	-.554

Table 5: Direct and Indirect Effects

Predictor variables	Outcome Variables					
	EN			OP		
	DE	IE	TE	DE	IE	TE
1. EX	.857***	-	.857***	.692***	.118	.809***
2. EN	-	-	-	.138	-	.138
R^2	.734***			.660***		
S.E.	.033			.045		
t-value	22.096			14.538		

	X^2	df	RMSEA	CFI	TLI	SRMR
Structural Equation model	1921.873***	743	.054	.931	.913	.064
Fit criteria	-	-	< .07	> .92	> .90	< .08

Note. ***$p < .001$.

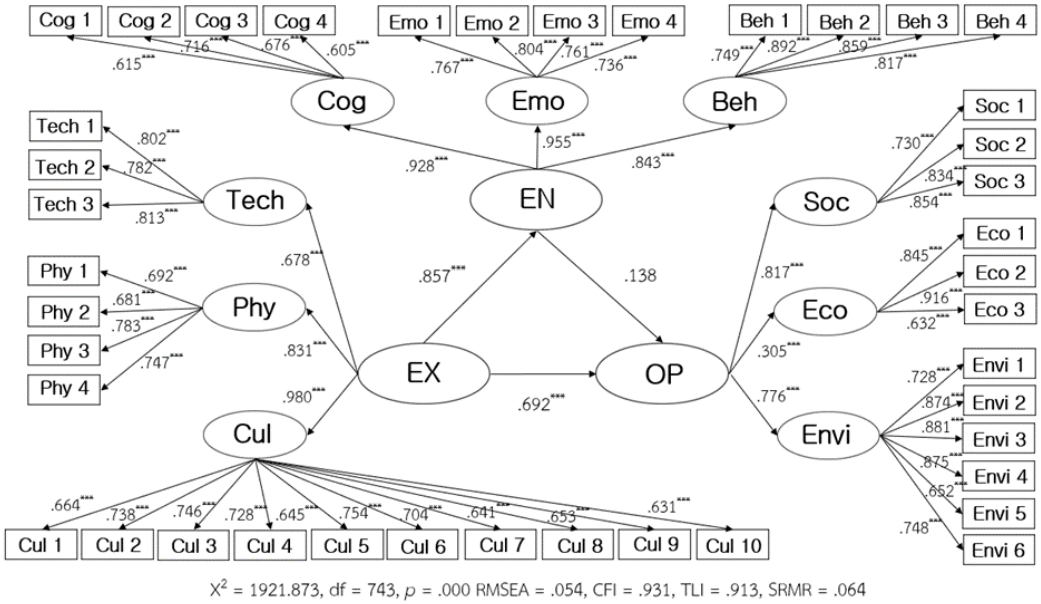

Figure 2: Structural Equation Model

Table 6: Direct and Indirect Effects

Predictor variables	Outcome Variables					
	EN			OP		
	DE	IE	TE	DE	IE	TE
1. EX	.847*** (.880***)	-	.847*** (.872***)	.681*** (.763***)	.120 (.060)	.801*** (.823***)
2. EN	-	-	-	.142 (.068)	-	.142 (.068)
R^2	.718*** (.774***)			.648*** (.678***)		
S.E.	.044 (.043)			.052 (.079)		
t-value	16.451 (17.814)			12.408 (8.603)		

	X^2	df	RMSEA	CFI	TLI	SRMR
Multigroup Structural Equation model	1418.032*** (1353.024***)	726 (669)	.059 (.059)	.931 (.931)	.911 (.912)	.066 (.065)
Fit criteria	-	-	< .07	> .92	> .90	< .08

Note: Results of employee model are in parentheses. ***$p < .001$

Table 7: Individual Pathway

Path	Managers		Employees	
	β	***t*-values**	β	***t*-values**
EX → EN	.847***	32.902	.880***	35.628
EX → OP	.681***	5.907	.763***	4.233
EN → OP	.142	1.172	.068	.376

Note: ***$p < .001$

Table 8: Structural Invariance Model

Model	X^2	df	*p*-values	RMSEA	CFI	TLI	SRMR
Configural	2855.523	1427	.000	.059	.931	.911	.066
Equivalence of direct effects	2859.961	1430	.000	.059	.931	.912	.066
Differences (Δ)	4.438	3	> .05	.000	.000	.001	.000

Note: X^2 .05,3 = 7.815

5. Discussion

Should employee engagement be replaced by employee experience? To answer this question, this study presents empirical evidence that, particularly in the context of sustainable airport operations post-COVID-19, the attention might indeed need to shift from employee engagement to employee experience. As such, by concentrating on the employee experience alone, airports can accomplish sustainable performance as employee experience is directly linked to sustainable organizational performance. Despite many studies highlighting the positive influence of employee engagement on organizational performance (Gupta et al., 2019; Rana & Chopra, 2019) and the significant relationship between employee experience and organizational performance via employee engagement (Gallup, 2016; Liley et al., 2017; Morgan, 2017), its limitations should also be recognized. Alfes et al. (2013) mentioned that the relationship might not be as straightforward as many engagement studies suggest, noting that many important contextual variables often interactively influence this relationship.

The COVID-19 crisis is a good example of such a contextual variable. The crisis, unlike any other recent event, significantly stressed employees, causing concerns about job security and requiring challenging adjustments to new work norms (Adisa et al., 2023). As the organization downsizing and turnover rate were increasing, after the COVID-19 crisis, human resources and organizations must pay more attention and concentrate on employee experiences, which have a direct effect on the employee journey. Therefore, this study's finding is consistent with that of Panneerselvam and Balaraman (2022) that the crisis has indeed shifted the paradigms of workforce, workplace, and work processes within organizations. Employees demand pleasurable and productive work experience, which exceeds employee engagement and management. Accordingly, a shift seems to exist within the employee-centric approach from an era of employee engagement to a new era emphasizing employee experience (Morgan, 2017). Entering the era of employee experience requires organizations to create a pleasant working environment that motivates employees (Riordan, 2018).

However, understanding various stakeholder perspectives is crucial. A common simplified assumption is that managers and nonmanagerial employees have aligned views (Lilova & Poell, 2019). However, this study reveals that managers and employees share similar perspectives on the relationship between employee experience and sustainable airport operations, likely due to the shared influence of the unprecedented COVID-19 crisis. This collective experience of the crisis might have blended their perspectives and perceptions regarding the volatile post-pandemic work environment. Therefore, understanding that key organizational stakeholders—managers and employees—share similar interests and

preferences can be beneficial for airports. It will allow them to redesign employee experience appropriately, fostering sustainable organizational performance in the complex, post-pandemic work environment.

6. Conclusion

This study aims to explore the relationship between employee experience, employee engagement, and organizational performance in the context of ensuring ongoing airport operations following the COVID-19 crisis. In addition, it investigates the differences in perceptions between managers and employees under this relationship. The findings highlight the importance of prioritizing employee experience post-COVID-19, supported by ample empirical evidence demonstrating a direct relationship between employee experience and organizational performance across different groups.

- Theoretical Implications

First, uncovering the perception gaps between airport managers and employees through a multiple group model offers a comprehensive understanding across various groups based on the linkages within the entire model. Second, to ensure the uniform applicability of the measurements for both groups, the study employed a measurement invariance approach (Cheung & Rensvold, 2002; Platania et al., 2022), along with examining the invariance of the structural model, thereby facilitating a thorough multigroup analysis. Third, this research introduces a unique perspective to the literature by demonstrating that airports can sustain operations post-COVID-19 through an intense focus on employee experience, even in the absence of employee engagement. Finally, as suggested by Zacher and Rudolph (2022), for scholars to explain how testing theoretical assumptions in the context of the pandemic yields new insights about employees' responses to crises, this study illustrates how the COVID-19 crisis acts as a significant contextual variable, which transforms this relationship after the crisis.

- Practical Implications

First, human resource practitioners should take on the role of employee experience designers by developing an evidence-based approach and investigating the implicit assumptions of their employees' perspectives. This understanding can then be used to craft appropriate employee experience that will significantly enhance the working environment at airports. Second, for airports to evolve into sustainable organizations, they must involve all key organizational stakeholders, including managers and employees, in the development of a shared and mutually beneficial employee experience. Third, in light of social distancing becoming a standard practice in airport operations during the COVID-19 crisis, airports must raise social awareness among their employees, as this is an essential prerequisite for effective collaboration.

Finally, the 4D model that emerged from this study appears to be an ideal for airport operations in term of being resilient and agile to changes; 1) Define the expectations and perceptions of employees, 2) Design the right experience base on employees' expectations and perceptions, 3) Deliver the best experience for the employees, and 4) Develop by listening to employees' feedback and continuous improving better experiences. Once this cycle is repeated regularly, airports are already well prepared to encounter any crisis in the future. However, this model is not only applicable for airport operations but also it could be extended to other organizations which aim to succeed in sustainability. In conclusion, the closer the alignment between the perceptions and expectations regarding employee experience, coupled with a unified vision shared by managers and employees, the greater the opportunity for airports to engage in continuous improvement and secure sustainable operations after the COVID-19 crisis.

- Limitations and Recommendation for Future Research

Although this study offers valuable insights, it also has its limitations. First, the relatively small sample size comprising managers and employees from a specific industry in a single country may restrict the possible generalizability of the findings. Future research should collect data from other industries and countries, extending beyond airports and Thailand. Second, this study measured the perceptions of managers and employees regarding organizational performance rather than measuring the actual performance metrics of airport operations. Evaluating actual organizational performance with appropriate airport-specific performance measurement should enhance the robustness of future findings. Moreover, the study did not conduct a detailed analysis of the nonsignificant indirect effects between employee engagement and organizational performance, including the mediating role of employee engagement. A qualitative methodology is suggested for future studies to provide a comprehensive understanding of the dynamics at play. Finally, this study's use of cross-sectional data to examine all the hypotheses imposes limits on determining the causality within the model. Future research should develop a casual model to explore a generalized path, along with longitudinal research to provide empirical evidence on sustainable airport operations.

Appendix

Technical environment

1. The technology I use within my airport is consumer grade.
2. The technology is available to me.
3. The technology is focused on the need of me, rather than technical requirements and specifications of my airport.

Physical environment

4. My airport offers multiple workplace options.
5. My physical space reflects the values of my airport.
6. I proud to bring friends or visitors to my airport.
7. My airport offers flexible working options.

Cultural environment

8. My airport has a positive brand perception.
9. I feel valued.
10. I feel a sense of purpose.
11. I feel like I am part of a team.
12. My airport believes in diversity and inclusion.
13. Referrals come from me.
14. If I wanted to learn new skills or advance, I am given the resources to do so.
15. My airport treats me fairly.
16. Executives and managers coach and mentor.
17. My airport dedicate itself to my health and wellness.

Cognitive engagement

18. I am really focused when I am working.
19. I concentrate on my job when I am at work.
20. I give my job responsibility a lot of attention.
21. At work, I am focused on my job.

Emotional engagement

22. Working at my airport has a great deal of personal meaning to me.
23. I feel a strong sense of belonging to my job.
24. I believe in the mission and purpose of my airport.
25. I care about the future of my airport.

Behavioral engagement

26. I really push myself to work beyond what is expected of me.
27. I am willing to put in extra effort without being asked.
28. I often go above what is expected of me to help my team be successful.
29. I work harder than expected to help my airport be successful.

Social performance

30. My airport participates actively in charity and donation activities.
31. My airport participates actively in community service activities.
32. My airport participates actively in ecological preservation.

Economic performance

33. At my airport, profitability has increased for the past three years.
34. At my airport, its market share has increased for the past three years.
35. At my airport, customer satisfaction has been enhanced for the three years.

Environmental performance

36. My airport reduces the effects of noise on surrounding communities.
37. My airport controls water pollution.
38. My airport reduces emissions of local air pollutants.
39. My airport reduces emissions of greenhouse gases.
40. My airport makes airport buildings more "green" or environmentally sustainable.
41. My airport addresses other environmental issues.

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