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Analysing the Impact of Service Quality on Brand Image and Brand Advocacy

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Absract

Purpose: This study aims to enhance airport service quality by examining their impact on brand image, advocacy, and mediating brand trust in the aviation service distribution sector. **Research Design, Data, and Methodology:** Using existing literature, we propose a structural model exploring the relationships between key components which are service quality, brand trust, brand Image and brand advocacy. An online survey, based on prior literature, was administered to 287 Koreans who have experienced using facilities or services at Incheon International Airport (IIA). Statistical analysis employed confirmatory factor analysis (CFA) and structural equation modelling (SEM). **Results:** Research findings show significant impacts of airport service quality on brand trust. Increased brand trust positively influences airport brand image and advocacy. **Conclusion:** The study emphasizes the aviation industry's potential to boost brand trust through improved airport service quality via users' interactions. Service quality is critical factors in building brand trust. The findings emphasize the critical role of service quality in fostering brand trust. It underscores the importance of user's satisfaction with service quality in fostering brand trust which can lead to brand image and brand advocacy. The aviation industry should formulate policies and strategies to enhance brand trust improved service quality, thereby improving brand image and brand advocacy.

Keywords: Service Quality, Brand Trust, Brand Image, Brand Advocacy, Incheon International Airport (IIA), Service Distribution

JEL Classification Code: C83, M38, L93, Q56

1. Introduction

Until the 1980s, marketing did not play a significant role in airport management. Prior to this, airports were seen primarily as free public services or utilities provided by government or quasi-government organisations. However, with the Airline Deregulation Act of 1978, airports began to compete for air routes (Lee-Mortimer, 1993). Consequently, in this increasingly competitive environment, increasing customer satisfaction by improving service quality has

become an important issue. In airport development, improving airport performance and service quality is a very topical and challenging issue, which has been widely studied from different angles and using a variety of methods, such as analysing passenger experience, evaluating airport performance through technical performance indicators, and analysing airport service quality using SERVQUAL (Pabedinskaitė & Akstinaitė, 2014).

In recent years, airports have increasingly adopted sustainable measures to minimise their environmental

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impact, reduce carbon emissions and promote responsible resource management. This includes energy efficient infrastructure, waste reduction, water conservation and the promotion of public transport to and from airports. By engaging in sustainable practice an airport can enhance its competitive advantage. This is achieved by positively impacting society and responding to the needs of stakeholders. Additionally, it enables an airport to maintain its competitive advantage through its continued existence. Therefore, a sustainable management strategy is not only important but essential for the sustainable development and long-term operation of an airport (Lee et al., 2022).

Branding is one of the key strategies nominated by airports to increase awareness and customer loyalty (Wheeler, 2013). Tse (2009) notes that branding goes beyond marketing products and services, encompassing all customer experiences, touchpoints, and perceptions of an organisation. The author explains that airport branding is a process aimed at creating a positive, memorable, and distinct identity. Effective branding enables an airport to differentiate itself from others and to distribute a positive image in the minds of users and stakeholders. This process involves consistent communication, customer engagement, and delivering a seamless and memorable experience for users. Effective airport branding can foster users' loyalty, attract airlines and generate a positive economic impact for the region.

Previous research on service quality has often overlooked the impact of airport service quality, sustainable practices, and branding, with limited exploration of sustainable practices' influence on brand advocacy. This study seeks to fill this gap by examining how airport service quality affects brand image and advocacy through sustainable practices, marking the first attempt to scrutinize sustainable practices' impact on brand within the airport sector. The paper emphasizes the potential benefits of airports promoting sustainability in the distribution sector, which can enhance brand advocacy and contribute to a more efficient and eco-friendly distribution ecosystem. Additionally, it highlights how service quality and sustainability can significantly impact an airport's competitiveness, user experience, and national image promotion. The research delves into the challenges airports face in simultaneously improving service quality and implementing sustainability, stressing the need to harmonize these aspects for a sustainable future.

2. Literature Review

2.1. Service Quality

The importance of the service sector in the global

economy cannot be overstated, and it is expected to remain the dominant force in the future. As a result, service quality has been a subject of research for nearly three decades (Stafford et al., 1999).

Some authors have defined service quality from different perspectives such as the viewpoint of customers, companies, marketers and so on. Butler and Keller (1992) argue that the quality of services in the aviation industry can only be defined by customers. Fodness and Murray (2007) suggest that the quality of airport services can be evaluated based on the expectations and experiences of customers who use them. The airport industry has experienced rapid growth in recent times, with an increasing demand from users for high-quality services (Bogicevic et al., 2013; Chang & Yeh, 2002; Fodness & Murray, 2007; Prentice & Kadan, 2019; Su'arez-Aleman' & Jim'enez, 2016; Tseng, 2020).

Passengers' perception of the physical environment is a crucial aspect of airport service quality, both on board an aircraft (Bogicevic et al., 2013) and on the ground. According to Fodness and Murray (2007), a clean and pleasant environment, security, courteous staff, and comfortable waiting areas are among the factors that contribute to passengers' satisfaction with airport services.

The most widely used measure of service quality is SERVQUAL (Cronin & Taylor, 1992; Oh, 1999). Despite criticism from other researchers, SERVQUAL remains the most commonly used diagnostic model for evaluating service quality and developing service quality strategies. SERVQUAL has been adapted for use in various industries, products, and target markets, including airline services (Aksoy et al., 2003; Chen & Chang, 2005; Park et al., 2004).

In this study, the service quality of an airport can be defined as being measured by the performance of service delivery by comparing customer expectations and experiences.

2.2. Sustainability Practice

Sustainability integrates three pillars which are economic development, environmental protection, and social progress (Akerman et al., 2000). These pillars are interdependent and equally important (Lubk, 2017).

Numerous studies have examined airport sustainability from various perspectives, including general sustainability, energy supply, greenhouse gas emission reduction strategies, air quality impacts, water management, ground transportation, sustainable construction, and waste management (Carlucci et al., 2018). Therefore, the definition of airport environmental sustainability varies in the academic literature, with some defining it based on multiple categories of environmental impacts and others limiting this definition to the traditional environmental impacts of aviation.

Airports consume water for indoor and outdoor operations. To reduce water consumption, they can use water-efficient fixtures, reduce irrigation needs, and explore alternative water sources such as rainwater harvesting, wastewater reclamation, greywater reuse, and seawater reuse, as already explored by Zaki et al. (2021).

Airports also have social impacts on communities. The adoption of social sustainability practices varies among small hub airports and focuses on four categories of stakeholders: passengers and travellers, employees, communities and local businesses, and concessionaires and tenants (Marete et al., 2021).

Currently, various institutions propose nuanced definitions of airport sustainability, with different interpretations of priority and scope in specific contexts. However, it is worth noting that all efforts in this field are aimed in the same direction.

Based on prior research, in this study, the airport's sustainability practice was considered to provide environmental, social, and economic services without threatening the vitality of the local community's environmental and social systems within the airport's limited capacity.

In recent years, there has been an increased focus on service quality and sustainability practices in both business and academia. Chaudhary and Dey (2021) found a strong relationship between service quality and sustainability practices. The study's results demonstrated the impact of students' perception of service quality on their perception of the university's sustainability practices. This study suggests that students believe higher service quality leads to better implementation of sustainable practices at universities, including support services, waste reduction, community outreach programs, and government partnerships. As well as Syapsan et al. (2019) found that service quality had a positive and significant impact on sustainable economic growth.

Steffen et al. (2019) presented a conceptual model that explains the drivers of consumer trust and satisfaction in organic supermarkets through sustainable practices. The study confirmed that sustainable practices of producers and retailers, retailers' reputation and image, product attributes, claims, labels and brands, and peer information have a positive effect on trust. It has been confirmed that companies can build trust and satisfaction by acting on clearly communicated sustainability claims.

2.3. Brand Trust

Mogan and Hunt (1994) conceptualized that trust is considered to exist when one party has confidence in the trustworthiness of the exchange partner. Also, trust is characterized as a willingness to rely on another (Moorman

et al., 1993).

According to other researchers, brand trust is the belief that consumers have in a brand, which leads them to rely on the brand of a product prior to making a decision. It has been shown that brand trust reduces uncertainty, especially when there is a lack of clarity about product information prior to purchase (Chaudhuri & Holbrook, 2001). Products with brand trust fulfil consumer expectations and provide a sense of safety in brand perception (Elena & Jose, 2001).

Various studies establish the association between brand trust and brand image. Morgan and Hunt (1994) state that trust is a key factor in the creation of a long-term commitment to a brand. Brand image can be enhanced by focusing on developing consumer-valued innovations for customers. A positive brand image plays a crucial role in building trust in the brand, which in turn increases brand equity (Khan et al., 2021; Khan, 2022). A strong brand image inspires consumers to have confidence in the quality of the products they are buying, helps them to make their decisions and allows them to feel at ease when they are doing so (Raza et al., 2020). During the process of building a brand image, brand equity can be acquired (Bello & Md Nor, 2021). Customers' positive perceptions of a brand are an indication of a high level of trust in that brand. In fact, brand trust is the principal factor influencing brand image, as it is believed to be the pathway to certain marketing benefits and consequences (Khan & Fatma, 2023b; Fatma & Rahman, 2017).

Thus, there are still many studies about brand trust and brand advocacy. It is absolutely vital for an organisation to build trust with their brand to have a positive impact on customer advocacy towards the brand (Kemp & Beccera, 2014). When customers trust the brand and it leads to reformation to the customers, which is stated as brand advocacy (Bhati & Verma, 2020). Customers participate in advocacy only when they trust the brand and believe that the brand meets their perceived expectations (Fatma & Khan, 2023a).

2.4. Brand Image

Brand image is defined by Keller (1993) as the perception of brand associations retained in the consumer's memory. These associations relate to any aspect of the brand in the consumer's memory (Aaker, 1996). In addition, brand image includes the consumer's thoughts and feelings about the brand (Roy & Banerjee, 2007). In other words, brand image is the overall mental picture that consumers have of a brand and its uniqueness that distinguish it from other brands (Faircloth, 2005).

The positive brand image could be built by marketing programs which creates powerful, positive and unique associations with the brand in the consumer's mind. It can

be produced through various channels, such as the direct experiences of consumers, their opinions and World-of-Mouth of other consumers, in addition to the information controlled by the marketing manager (Keller, 2003; Seo et al., 2020).

Based on the concept of brand image stated in this review, these authors are inclined to consider it as a multidimensional phenomenon in the airport industry.

When passengers pass through an airport, they have certain expectations of the infrastructure and evaluate the airport according to their perceptions-knowledge-emotions towards the products and services offered (Leisen, 2001). Similarly, airport image consists of information, beliefs, impressions, attitudes, and emotions based on an individual's experiences (Kotler et al., 1993).

Keller (1993) defines brand image as the overall impression that a consumer has of a brand, which is created by combining multiple associations related to the brand, and the perception expressed by the brand associations imprinted in the consumer's memory. In addition, brand image is a perceptual concept that a consumer has about a particular brand (Aaker, 1997) and can be expressed as the sum of the evaluations that a consumer has about a specific brand (Kotler, 1996).

2.5. Brand Advocacy

The definition of brand advocacy is the effort of brand advocates to share their experience of using a specific brand with other relevant people (Badrinarayanan & Sierra, 2018).

Brand advocacy is defined as the promotion or defence of an organisation, product or brand by one consumer to another and the highest level of endorsement of the relationship between the consumer and the brand (Walz & Celuch, 2010).

Endorsed by numerous scholars, Positive word-of-mouth and brand advocacy are considered to be two of the most effective and reliable communication tools of a brand (Keller, 2007).

Brand advocates refer to positive evaluations of the organisation's brand or product (Ahmadi & Ataei, 2024). Brand advocacy is identified as positive communication about a brand, this includes recommending it or defending it when it is attacked (Wilk et al., 2020). Brand advocacy is defined as the proactive engagement of consumers who have had prior brand experiences, wherein they endorse a brand by recommending it to others or actively supporting the brand's initiatives (Badrinarayanan & Sierra, 2018).

Hence, brand advocacy can be characterized as a set of distinct activities aimed at supporting, defending and recommending a brand.

2.6. Research Hypothesis

Based on the above factors, this empirical study examines how service quality and sustainability practices interact in the airport environment, focusing on Incheon International Airport (IIA), and their impact on brand image and brand advocacy by mediated brand trust.

Therefore, the following hypotheses are proposed:

- H1:** Service Quality has a positive effect on sustainability Practice.
- H2:** Services Quality positively influences Brand Trust.
- H3:** Sustainability Practice has positive effect on Brand Trust.
- H4:** Brand trust has a positive influence on brand image.
- H5:** Brand trust has a positive influence on brand advocacy.

3. Methodology

3.1. Survey Design

Nineteen survey items were created for a quantitative approach, based on the research model presented in Figure 1 (Saunders et al., 2009). Table 1 shows the revised and supplemented items from previous studies on service quality, sustainability practice, brand trust, brand image, and brand advocacy. The questionnaires for this study were revised to use a 5-point Likert scale. The study used a non-probabilistic, self-participation sampling method based on Tarhini's guidelines (Tarhini et al., 2016). Twenty participants who had used Incheon International Airport at least once were provided with the questionnaire to participate in three times pilot tests. The questionnaires were modified to suit the topic of this study.

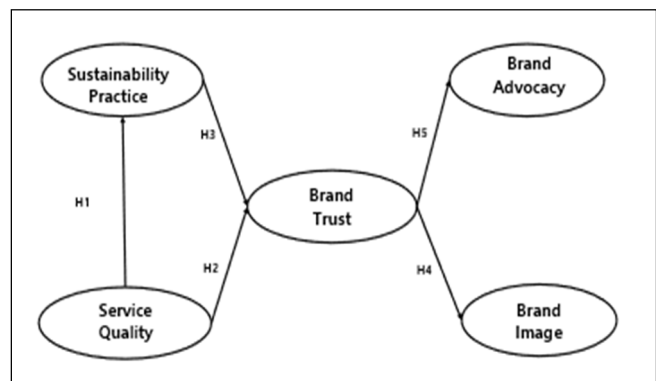


Figure 1: The Research Model

Table 1: Survey Items

Constructs	Descriptions		Sources
Service Quality	SQ1	Incheon International Airport (IIA) provides clean environments.	Mainardes et al. (2021)
	SQ2	IIA has/offers comfortable environments.	
	SQ3	The arrival and departure information boards at IIA are easy to understand and accurate.	Lin (2022)
	SQ4	IIA staff/ officers are friendly and sincere when answering my questions.	Chaudhary & Dey (2021)
	SQ5	IIA staff/ officers fully understand my requests and proactively help users.	
Sustainability Practice	SP1	IIA is committed to partnerships with government, nongovernmental organisations and industry working for sustainability.	Chaudhary & Dey (2021)
	SP2	IIA is emphasising the importance of sustainability through its various customer support services.	
	SP3	IIA is practicing reusing/recycling 3R (reduce, reuse, recycle) campaign to protect the environment.	
	SP4	IIA has social contribution programs that benefit the local environment.	
Brand Trust	BT1	I trust the activities, services and products of IIA.	Cuong (2020)
	BT2	IIA is trustworthy.	
	BT3	IIA is safe.	
Brand Image	BI1	IIA the leader in their industry.	Seo et al. (2020)
	BI2	I have an impressive experience at IIA.	
	BI3	IIA is different from other airports.	Ansary et al. (2018)
	BI4	IIA offers high quality services and facilities.	
Brand Advocacy	BA1	I talk favourably about IIA to friends and family.	Kumgliang & Khamwon (2022)
	BA2	I would like to defend IIA when others speak poorly about it.	
	BA3	I would like to actively enthusiastically participate in online and offline activities to promote IIA.	

3.2. Data Collection and Analysis

The main survey format was collected from individuals who have previously used Incheon International Airport using the Google Survey Program. The survey was conducted over a two-week period starting from January 11, 2024, and 287 responses were obtained. SPSS version 25 was used to conduct various analyses, including descriptive statistics and internal reliability (Cronbach, 1951), as well as AMOS 23 for convergent reliability, discriminant reliability, model fit analysis, SEM path analysis, and hypothesis validation (Hair et al., 2011; Leontitsis & Page, 2007).

4. Findings

4.1. Demographic Profile

The demographic profile in Table 2 shows that out of 287 individuals, 60.3% were female and 39.7% were male. Regarding age, the largest age group of respondents was in the 30-39 range, accounting for 31.7%. The 40-49 range accounted for 30.3%, the 50-59 range accounted for 18.8%, and the 20-29 range accounted for 12.5%. In terms of the purpose of visits to Incheon International Airport, 49.1% of respondents visited one to two times annually, followed by

22.3% visiting three to five times. Departures and arrivals were the highest at about 79.1% for the purpose of visit, and business purposes were 13.6%. Incheon International Airport was the airport where the highest percentage of time was spent, with 44.3% of passengers spending two to three hours there. This was followed by 32.1% of passengers spending one to two hours, 13.6% spending more than three hours, and 10.1% spending less than one hour.

4.2. Confirmative Factor Analysis

Confirmatory factor analysis (CFA) was used to verify the factor structure among the observed variables presented in Table 2. To analyse the relationship between observed and latent variables, we used the squared multiple correlation to determine the proportion of variance accounted for in the latent variables. The squared multiple correlations ranged from 0.398 to 0.716. Furthermore, Cronbach's alpha is utilised to evaluate the internal consistency and reliability of observed variables. All Cronbach values have been deemed acceptable (Cronbach, 1951; Santos, 1999).

AVE is the measure of the amount of variance captured by a construct in relation to the amount of variance due to measurement error. The threshold values for these parameters are as follows: AVE should be 0.5. However, an AVE equal to 0.4 can be accepted if the composite reliability

is higher than 0.6 for that specific construct (Fornell & Larcker, 1981; Rahman & Al-Emad, 2018). Furthermore, our measurement model assessment involves analysing convergent validity through AVE (Hair et al., 2014). In Table 4, this illustrates that the values of Cronbach's alpha (CA) exceed the recommended threshold of 0.7 (Hair Jr et al., 2021; Henseler, 2017; Murè, 2021). The CR values are also above 0.7 or 0.8, which is considered adequate (Cachón-Rodríguez et al., 2020; Hair Jr et al., 2021; Murè, 2021).

Table 2: Demographic Profile

Items	Details	n	%
Gender	Male	114	39.7
	Female	173	60.3
Age	20-29	36	12.5
	30-39	91	31.7
	40-49	87	30.3
	50-59	54	18.8
	More than 60	19	6.6
Number of visits per year	1~2 times	141	49.1
	3~5 times	64	22.3
	6~10 times	29	10.1
	More than 11 times	53	18.5
Purpose	Departure and Arrival	227	79.1
	Transfer	1	0.3
	Business Work	39	13.6
	Other	20	7.0
Duration	Less than 1 hour	29	10.1
	1~2 hours	92	32.1
	2~3 hours	127	44.3
	More than 3 hours	39	13.6

The model fits by confirmatory factor analysis were assessed, and the results are presented in Table 5, ensuring the sustainability of this model.

As shown in Table 4, the goodness-of-fit test performed on the hypothetical SEM research model proved the measurement indices can reflect the characteristics of five latent variables. Therefore, the SEM goodness of fit which includes service quality, sustainability practice, brand trust, brand image and brand advocacy revealed that all fit indices fall within acceptable ranges.

Modifying and deleting a few observed variables, the goodness of fit of the model becomes a little bit decent. That is, $CMIN/df = 3.781$, meeting the standard of accepting range between 1 and 4. $RMR=0.039$, complying with the acceptable range of being smaller than 0.05. $GFI = 0.842$, close to the acceptable excellent goodness of fit 0.9 index. $AFGI = 0.777$, close to the acceptable excellent goodness of

fit 0.9 index. $RMSEA = 0.099$, which is slightly above the acceptable range of being smaller than 0.08. In addition, the other index shows acceptable goodness-of-fit test results. $NFI = 0.835$, close to the acceptable excellent goodness of fit 0.9 index. $TLI = 0.838$, close to the acceptable excellent goodness of fit 0.9 index. $IFI = 0.873$ very close to the acceptable excellent goodness of fit 0.9 index.

Except for AGFI, RMSEA which falls slightly short of the standard value of 0.9, all other indices meet the criteria. Therefore, this research can be deemed appropriate (Bae & Park, 2021; Lee et al., 2022).

4.3. Structural Equation Modelling Analysis

Path analysis, in Figure 2 and Table 5, shows the main results of the structural equation model providing coefficient estimates, construct reliability and p-value etc. First, the hypothesis connecting Service Quality to Sustainability Practice (H1), with the values of $\beta = 0.694$ (C.R. 8.623, $p < .001$) was supported. Thus, it was demonstrated that service quality has a significantly positive effect on sustainability practice. Secondly, the hypothesis connecting Service Quality to Brand Trust (H2), with the values of $\beta = 0.456$ (C.R. 5.251, $p < .001$) was supported. Therefore, it was shown that service quality has a significantly positive influence on brand trust. Thirdly, the hypothesis connecting Sustainability Practice to Brand Trust (H3), with the values of $\beta = 0.406$ (C.R. 4.917, $p < .001$) was supported.

Thus, it was proven that brand trust has a positive and significant influence on brand advocacy. According to hypothetical test results, among all the paths tested, the relationship between brand trust and brand image showed the highest construct reliability of 11.721.

As Figure 2 demonstrates, the effect of service quality perceived by airport users on sustainability practice and the effect of service quality and sustainability practice on brand trust were examined. As a result, the higher the perception of service quality, the more positive the sustainability practice was. In addition, both service quality and sustainability practice were found to have a significant effect on brand trust. Brand trust was found to have a positive effect on the relationship between brand image and brand advocacy. The higher the evaluation of service quality and sustainability practice perceived by Incheon International Airport users, the higher the brand trust, and it can be understood that the affected brand trust has a more positive effect on brand image and brand advocacy. As shown in previous studies (Chaudhary & Dey, 2021), it was confirmed that the higher the perception of service quality, the more positive the sustainability practice was.

Table 3: Confirmatory Factor Analysis

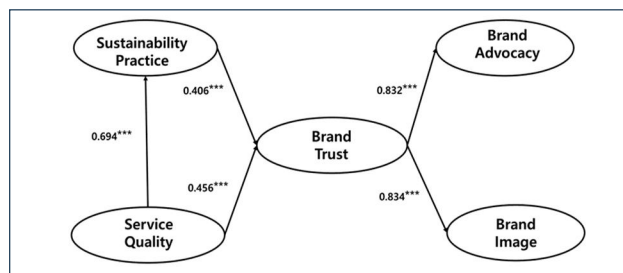
Constructs		S. E	Cronbach-α	SMC	AVE	C.R
Service Quality	---> SQ1	0.671	0.833	0.485	0.541	0.854
	---> SQ2	0.747		0.547		
	---> SQ3	0.637		0.479		
	---> SQ4	0.902		0.622		
	---> SQ5	0.906		0.571		
Sustainability Practice	---> SP1	0.893	0.846	0.540	0.605	0.860
	---> SP2	0.894		0.615		
	---> SP3	0.883		0.587		
	---> SP4	0.904		0.679		
Brand Trust	---> BT1	0.730	0.842	0.716	0.685	0.867
	---> BT2	0.888		0.687		
	---> BT3	0.818		0.653		
Brand Image	---> BI1	0.900	0.798	0.459	0.539	0.822
	---> BI2	0.886		0.401		
	---> BI3	0.886		0.613		
	---> BI4	0.886		0.683		
Brand Advocacy	---> BA1	0.669	0.703	0.647	0.496	0.745
	---> BA2	0.664		0.398		
	---> BA3	0.768		0.440		

Table 4: Model Fit Results

Division	Result	Good Fit	Acceptable Fit	Sources	
Absolute fit index	CMIN/DF	3.781	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$	Schermelleh-Engel et al. (2003)
	RMR	0.039	$0 \leq SRMR \leq 0.05$	$0.05 \leq SRMR \leq 0.10$	
	GFI	0.842	$0.95 \leq GFI \leq 1.00$	$0.90 \leq GFI \leq 0.95$	
	AGFI	0.777	$0.90 \leq AGFI \leq 1.00$	$0.85 \leq AGFI \leq 0.90$	
	RMSEA	0.099	$0 \leq RMSEA \leq 0.05$	$0.05 \leq RMSEA \leq 0.08$	
Incremental fit index	NFI	0.835	$0.95 \leq NFI \leq 1.00$	$0.90 \leq NFI \leq 0.95$	
	CFI	0.872	$0.97 \leq CFI \leq 1.00$	$0.95 \leq CFI \leq 0.97$	

Table 5: Hypothetical Test Results (**p< .001 and **p< .05.)

Hypotheses	Coefficient	S.E.	C.R.	P	Results
H1 Service Quality → Sustainability Practice	0.694	0.113	8.623	***	Supported
H2 Service Quality → Brand Trust	0.456	0.079	5.251	***	Supported
H3 Sustainability Practice → Brand Trust	0.406	0.053	4.917	***	Supported
H4 Brand Trust → Brand Image	0.834	0.087	11.721	***	Supported
H5 Brand Trust → Brand Advocacy	0.832	0.139	7.881	***	Supported



(***p < 0.001 **p < 0.05)

Figure 2: SEM Analysis Results

5. Conclusion and Implications

5.1. Conclusion

This study examined the mediating role of brand trust in the relationship between service quality and sustainable practices of Incheon International Airport on brand image and brand advocacy. The purpose of this study is to analyse how service quality and sustainable practices at Incheon International Airport affect the airport's brand image and

brand advocacy in the context of the aviation service distribution sector. The mediator of brand trust was employed to examine the impact of service quality and sustainable practices on airport users' perceptions. These mediators are essential to understand the relationship between service quality and airport sustainable practices and brand strategy.

The main findings of this study are as follows. First, we found that airport service quality and sustainable practices have a positive impact on airport users' brand trust. This result emphasises the importance of not only improving service quality but also managing sustainable practices within the Korean airport industry. Sustainable practices can increase the brand trust of public organisations such as Incheon International Airport when they are more actively implementing sustainability practice.

Second, increased brand credibility has a positive impact on brand image and brand advocacy. This shows that airports should demonstrate service quality and sustainable management that is differentiated from other airports and should be planned and managed in the long term in order to increase their brand image and brand advocacy. When the user's experience with the airport is enhanced with a sense of trust, it will go beyond the role of the airport and create a strong and positive national image.

Thirdly, the airport's brand image needs to be further strengthened as a representative image of Korea, and a differentiation strategy needs to be implemented in the experience of airport users. It can be seen that the quality of airport services and sustainable management of airports increase the brand trust of airports, and the brand image of Korea is strengthened and endorsement is positively affected.

In summary, by analysing and validating the impact of service quality and sustainability practices on brand trust, image and advocacy from the perspective of Incheon International Airport users, this study laid the foundation for providing practical data for airport brand improvement planning and operations. These findings will contribute to the development of related research and help to find ways to enhance positive country image and improve national brand value.

5.2. Implications

Based on these findings, we can draw several implications for both academic research and managerial practices.

This study provides a theoretical foundation for understanding the influence between brand image and advocacy through the mediation of the variables of service quality, sustainable practices, and brand trust from the perspective of airport users. This is an under-researched area

within the Korean airport industry. This study found that social and environmental activities at airports have a positive impact on airport growth by increasing brand image and brand advocacy. Given the fact that other airports in Korea, except Incheon International Airport, are staying in their traditional roles, the authors believe that this study can provide a theoretical basis for the development of regional airports.

While many previous studies have focused on airport users' intention to return and service satisfaction, there is a lack of research that examines the impact of sustainable practices on brand advocacy in addition to airport service quality. To the best of the authors' knowledge, this is the first study to consider the impact of sustainable practices of airports on brand advocacy using the parameter of brand trust. The proposed conceptual framework contributes to the development of related research and fills a research gap left by existing studies.

The findings of this study hold meaningful insights for managerial practices within the airport industry.

First, airport management should understand how airport users evaluate the airport's brand and have a favourable brand image of the airport in order to prepare and manage strategic plans. In order to improve the quality of service as an airport brand, it is important to pay attention to the education and training of employees. Therefore, airports should strengthen the education of employees on service delivery skills and attitudes to improve the quality of service perceived by customers.

Second, it emphasizes the importance of strengthening social, environmental, and economic activities in the sustainability practices of airports. Public organisations, especially airports, should strive for long-term sustainability and demonstrate their commitment to environmental, social, and governance issues. Airports are no longer solely responsible for handling arrivals and departures, but are also evolving into cultural and social complex. This perspective views airports as a cycle of distribution. Airports are working towards creating a distribution ecosystem for the aviation industry by collaborating with SMEs (small medium size enterprises), strengthening technology, promoting a fair culture, supporting sales, and resolving regulatory difficulties for airport partners. This study could have a positive impact on the airport's image as a brand representing the country and expand its distribution network by gaining brand advocacy. Today, Incheon International Airport has a wide range of comprehensive sustainability practices, but it lacks a marketing component. Collaborating with various stakeholders, such as the local community, airlines, and environmental organisations, can further enhance the effectiveness of sustainable practices.

Such a strategy would have an impact on improving the airport's brand image and advocacy.

In summary, this study provides an understanding of how airports can achieve service excellence and sustainability practices. The experience of these airports will not only enhance the brand value of the airport, but also contribute to a positive national image.

5.3. Limitations and Future Research

This study examines the relationship among airport service quality, sustainable practices, and brand trust, image, and advocacy. However, there are limitations to the study. The focus on a specific region may restrict generalizability, neglecting diverse cultural and economic contexts.

Future studies should encompass broader contexts. Additionally, the study primarily gauged customer perspectives, overlooking organisational dimensions within airport organisations. Future research should investigate the interplay between internal processes, leadership, and organisational culture with brand performance. Further research can explore how specific service quality elements and sustainability impact brand trust to inform more targeted strategies. Furthermore, differentiating brand trust and image among airport user characteristics, such as business and leisure travellers, can guide tailored strategies. Finally, the current study does not consider the evolution of brand trust and image over time in the dynamic aviation industry. Future research should adapt to changing industry trends and explore strategies for sustained success amidst technological and environmental changes.

References

- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California management review*, 38(3), 102-120.
- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of marketing research*, 34(3), 347-356.
- Ahmadi, A., & Ataei, A. (2024). Emotional attachment: a bridge between brand reputation and brand advocacy. *Asia-Pacific Journal of Business Administration*, 16(1), 1-20.
- Akerman, J., Banister, D., Dreborg, K., Nijkamp, P., Schleicher-Tappeser, R., Stead, D., & Steen, P. (2000). *European transport policy and sustainable mobility*. London, UK: Routledge.
- Aksoy, S., Atilgan, E., & Akinci, S. (2003). Airline services marketing by domestic and foreign firms: differences from the customers' viewpoint. *Journal of Air Transport Management*, 9(6), 343-351.
- Ansary, A., & Nik Hashim, N. M. H. (2018). Brand image and equity: The mediating role of brand equity drivers and moderating effects of product type and word of mouth. *Review of Managerial Science*, 12, 969-1002.
- Badrinarayanan, V., & Sierra, J. J. (2018). Triggering and tempering brand advocacy by frontline employees: vendor and customer-related influences. *Journal of Business & Industrial Marketing*, 33(1), 42-52.
- Bae, J. H., & Park, J. W. (2021). Research into individual factors affecting safety within airport subsidiaries. *Sustainability*, 13(9), 5219.
- Bello, K. B., Jusoh, A., & Md Nor, K. (2021). Relationships and impacts of perceived CSR, service quality, customer satisfaction and consumer rights awareness. *Social responsibility journal*, 17(8), 1116-1130.
- Bhati, R., & Verma, H. V. (2020). Antecedents of customer brand advocacy: A meta-analysis of the empirical evidence. *Journal of Research in Interactive Marketing*, 14(2), 153-172.
- Bogicevic, V., Yang, W., Bilgihan, A., & Bujisic, M. (2013). Airport service quality drivers of passenger satisfaction. *Tourism Review*, 68(4), 3-18.
- Butler, G. F., & Keller, M. R. (1992). The cost-constrained global airline industry environment: what is quality? *Transportation Quarterly*, 46(4), 599-618.
- Cachón-Rodríguez, G., Prado-Román, C., & Blanco-Gonzalez, A. (2020). Efectos de la imagen universitaria sobre la identificación y la lealtad: ¿existen diferencias significativas entre estudiantes y egresados. *Rev. Espac*, 41, 1015.
- Carlucci, F., Cirà, A., & Coccorese, P. (2018). Measuring and explaining airport efficiency and sustainability: Evidence from Italy. *Sustainability*, 10(2), 400.
- Chang, Y. H., & Yeh, C. H. (2002). A survey analysis of service quality for domestic airlines. *European journal of operational research*, 139(1), 166-177.
- Chaudhary, S., & Dey, A. K. (2021). Influence of student-perceived service quality on sustainability practices of university and student satisfaction. *Quality Assurance in Education*, 29(1), 29-40.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing*, 65(2), 81-93.
- Chen, F. Y., & Chang, Y. H. (2005). Examining airline service quality from a process perspective. *Journal of Air Transport Management*, 11(2), 79-87.
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business ethics*, 93, 307-319.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.
- Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: a re-examination and extension. *Journal of marketing*, 56(3), 55-68.
- Cuong, D. T. (2020). The effect of brand identification and brand trust on brand commitment and brand loyalty at shopping malls. *International Journal of Advanced Science and Technology*, 29(7), 695-706.
- Elena, D. B., & Jose, L. M. A. (2001). Brand trust in the context of consumer loyalty. *European journal of Marketing*, 35(11-12), 1238-1258.
- Faircloth, J. B. (2005). Factors influencing nonprofit resource provider support decisions: applying the brand equity concept to nonprofits. *Journal of marketing theory and practice*, 13(3), 1-15.
- Fatma, M., & Khan, I. (2023a). Corporate social responsibility and brand advocacy among consumers: The mediating role of brand trust. *Sustainability*, 15(3), 2777.
- Fatma, M., & Khan, I. (2023b). CSR influence on brand loyalty in

- banking: The role of brand credibility and brand identification. *Sustainability*, 15(1), 802.
- Fatma, M., & Rahman, Z. (2017). An integrated framework to understand how consumer-perceived ethicality influences consumer hotel brand loyalty. *Service Science*, 9(2), 136-146.
- Fodness, D., & Murray, B. (2007). Passengers' expectations of airport service quality. *Journal of Services Marketing*, 21(7), 492-506.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Gupta, A., Dash, S., & Mishra, A. (2019). All that glitters is not green: Creating trustworthy ecofriendly services at green hotels. *Tourism Management*, 70, 155-169.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6). Upper Saddle River, NJ: Pearson Prentice Hall
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*, 26(2), 106-121.
- Hair Jr, J., Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. New York: Sage publications.
- Han, H., & Hwang, J. (2015). Quality of physical surroundings and service encounters, airfare, trust and intention during the flight: Age-group difference (young, middle-aged, and mature). *International Journal of Contemporary Hospitality Management*, 27(4), 585-607.
- Henseler, J. (2017). Bridging design and behavioral research with variance-based structural equation modeling. *Journal of advertising*, 46(1), 178-192.
- Keller, E. (2007). Unleashing the power of word of mouth: Creating brand advocacy to drive growth. *Journal of advertising research*, 47(4), 448-452.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of marketing*, 57(1), 1-22.
- Keller, K. L. (2003). Brand synthesis: The multidimensionality of brand knowledge. *Journal of consumer research*, 29(4), 595-600.
- Kemp, E., Jilapalli, R., & Becerra, E. (2014). Healthcare branding: developing emotionally based consumer brand relationships. *Journal of Services Marketing*, 28(2), 126-137.
- Khan, I. (2022). Do brands' social media marketing activities matter? A moderation analysis. *Journal of Retailing and Consumer Services*, 64, 102794.
- Khan, I., & Fatma, M. (2023). Understanding the Influence of CPE on Brand Image and Brand Commitment: The Mediating Role of Brand Identification. *Sustainability*, 15(3), 2291.
- Khan, I., Fatma, M., Kumar, V., & Amoroso, S. (2021). Do experience and engagement matter to millennial consumers? *Marketing intelligence & planning*, 39(2), 329-341.
- Kotler, P. (1972). *Marketing management; analysis, planning, and control*. Hoboken, NJ: Prentice Hall.
- Kotler, P., Haider, D. H., & Rein, I. (1993). *Marketing places: attracting investment, Industry, and Tourism to cities, States, and Nations*, New York: Maxwell Macmillan.
- Kumglang, O., & Khamwon, A. (2022). Antecedents of Brand Advocacy in Online Food Delivery Services: An Empirical Investigation. *Innovative Marketing*, 18(3), 136-148.
- Lee-Mortimer, A. (1993). Customer focus takes off. *The TQM Magazine*, 5(3), 37-41.
- Lee, S., Park, J. W., & Chung, S. (2022). The Effects of Corporate Social Responsibility on Corporate Reputation: The Case of Incheon International Airport. *Sustainability*, 14(17), 10930.
- Leisen, B. (2001). Image segmentation: the case of a tourism destination. *Journal of services marketing*, 15(1), 49-66.
- Leontitsis, A., & Pagge, J. (2007). A simulation approach on Cronbach's alpha statistical significance. *Mathematics and Computers in Simulation*, 73(5), 336-340.
- Lin, H. F. (2022). The mediating role of passenger satisfaction on the relationship between service quality and behavioral intentions of low-cost carriers. *The TQM Journal*, 34(6), 1691-1712.
- Lubk, C., Lubk, & Berg. (2017). *Concept of sustainability and its application to labor market policy*. Wiesbaden, Germany: Springer Gabler.
- Mainardes, E. W., de Melo, R. F. S., & Moreira, N. C. (2021). Effects of airport service quality on the corporate image of airports. *Research in Transportation Business & Management*, 41, 100668.
- Marete, C. K., & Johnson, M. E. (2021). Case Study of Social Sustainability Practices in US Small Hub Airports. *Transportation Research Record*, 2675(10), 916-926.
- Mercadé Melé, P., Molina Gómez, J., & Sousa, M. J. (2020). Influence of sustainability practices and green image on the revisit intention of small and medium-size towns. *Sustainability*, 12(3), 930.
- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of marketing*, 57(1), 81-101.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of marketing*, 58(3), 20-38.
- Murè, P., Spallone, M., Mango, F., Marzioni, S., & Bittucci, L. (2021). ESG and reputation: The case of sanctioned Italian banks. *Corporate Social Responsibility and Environmental Management*, 28(1), 265-277.
- Oh, H. (1999). Service quality, customer satisfaction, and customer value: A holistic perspective. *International journal of hospitality management*, 18(1), 67-82.
- Pabedinskaitė, A., & Akstinaitė, V. (2014). Evaluation of the airport service quality. *Procedia-Social and Behavioral Sciences*, 110, 398-409.
- Park, J. W., Robertson, R., & Wu, C. L. (2004). The effect of airline service quality on passengers' behavioural intentions: a Korean case study. *Journal of Air Transport Management*, 10(6), 435-439.
- Prentice, C., & Kadan, M. (2019). The role of airport service quality in airport and destination choice. *Journal of Retailing and Consumer Services*, 47, 40-48.
- Rahman, I. A., & Al-Emad, N. (2018). Structural relationship of leadership qualities with worker's issues for Saudi Arabia's construction industry. In *MATEC Web of Conferences* (Vol. 250,

- p. 05002). Les Ulis, France: EDP Sciences.
- Raza, A., Saeed, A., Iqbal, M. K., Saeed, U., Sadiq, I., & Faraz, N. A. (2020). Linking corporate social responsibility to customer loyalty through co-creation and customer company identification: Exploring sequential mediation mechanism. *Sustainability*, *12*(6), 2525.
- Rönkkö, M., & Cho, E. (2022). An updated guideline for assessing discriminant validity. *Organizational Research Methods*, *25*(1), 6-14.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of management review*, *23*(3), 393-404.
- Roy, D., & Banerjee, S. (2007). CARE-ing strategy for integration of brand identity with brand image. *International journal of commerce and management*, *17*(1/2), 140-148.
- Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of extension*, *37*(2), 1-5.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. London, UK: Pearson education.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of psychological research online*, *8*(2), 23-74.
- Seo, E. J., Park, J. W., & Choi, Y. J. (2020). The effect of social media usage characteristics on e-WOM, trust, and brand equity: Focusing on users of airline social media. *Sustainability*, *12*(4), 1691.
- Setiawan, E., Wati, S., Wardana, A., & Ikhsan, R. (2020). Building trust through customer satisfaction in the airline industry in Indonesia: Service quality and price fairness contribution. *Management Science Letters*, *10*(5), 1095-1102.
- Song, H., Ruan, W., & Park, Y. (2019). Effects of service quality, corporate image, and customer trust on the corporate reputation of airlines. *Sustainability*, *11*(12), 3302.
- Stafford, K., Duncan, K. A., Dane, S., & Winter, M. (1999). A research model of sustainable family businesses. *Family business review*, *12*(3), 197-208.
- Steffen, A., & Doppler, S. (2019). Building consumer trust and satisfaction through sustainable business practices with organic supermarkets: The case of Alnatura. In *Case studies in food retailing and distribution* (pp. 205-228). Sawston, UK: Woodhead Publishing.
- Suárez-Alemán, A., & Jiménez, J. L. (2016). Quality assessment of airport performance from the passengers' perspective. *Research in Transportation Business & Management*, *20*, 13-19.
- Syapsan, S. (2019). The effect of service quality, innovation towards competitive advantages and sustainable economic growth: Marketing mix strategy as mediating variable. *Benchmarking: An International Journal*, *26*(4), 1336-1356.
- Tarhini, A., Teo, T., & Tarhini, T. (2016). A cross-cultural validity of the E-learning Acceptance Measure (ElAM) in Lebanon and England: A confirmatory factor analysis. *Education and Information Technologies*, *21*(5), 1269-1282.
- Tse, I. A. (2009). *An empirical study of airport branding at selected Canadian international airports*. MBA dissertation, University of Calgary, Calgary, Canada.
- Tseng, C. C. (2020). An IPA-Kano model for classifying and diagnosing airport service attributes. *Research in Transportation Business & Management*, *37*, 100499.
- Verhoef, P. C., Franses, P. H., & Hoekstra, J. C. (2002). The effect of relational constructs on customer referrals and number of services purchased from a multiservice provider: does age of relationship matter? *Journal of the academy of marketing science*, *30*, 202-216.
- Walz, A. M., & Celuch, K. G. (2010). The effect of retailer communication on customer advocacy: The moderating role of trust. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *23*, 95-110.
- Wheeler, A. (2017). *Designing brand identity: an essential guide for the whole branding team*. Hoboken, NJ: John Wiley & Sons.
- Wilk, V., Soutar, G. N., & Harrigan, P. (2020). Online brand advocacy (OBA): The development of a multiple item scale. *Journal of Product & Brand Management*, *29*(4), 415-429.
- Zaki, B. M., Babashamsi, P., Shahrir, A. H., Milad, A., Abdullah, N. H., Hassan, N. A., & Yusoff, N. I. M. (2021). The impact of economic analysis methods on project decision-making in airport pavement management. *J. Teknol*, *83*, 11-19.