Examining the Impact of Airport Experience on Passenger Satisfaction and Green Image: A Case Study of Yogyakarta International Airport

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Abstract:

This research investigates the influence of airport experience on passenger satisfaction and the perception of green image at Yogyakarta International Airport (YIA). The study utilizes the Experience Economy Theory, examining the roles of entertainment, education, aesthetics, and escapism in shaping passenger satisfaction and contributing to YIA's green image. Data were collected from 327 passengers using a structured questionnaire based on a five-point Likert scale. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze the relationships between the dimensions of the airport experience and their impact on passenger satisfaction and green image. The results indicate that educational and escapist experiences significantly enhance both satisfaction and green image, whereas entertainment and aesthetic dimensions have a less significant impact on the perception of YIA's sustainability efforts. This study provides insights for airport managers on how to improve airport experiences and green initiatives to foster stronger passenger loyalty and environmental awareness.

Keywords: *Airport Experience, Satisfaction, Green Image, Yogyakarta International Airport, Sustainability*

1. Introduction

Airports play a pivotal role in the global aviation industry, serving as essential hubs for the movement of passengers and goods. Beyond their functional role, airports are increasingly seen as experiential environments where passenger satisfaction is shaped by various factors, including service quality, design, and sustainability initiatives. In recent years, the emphasis on creating a positive airport experience has gained significant attention due to its impact on customer loyalty, behavioral intention, and the airport's image as a modern, service-oriented facility. Airports are not just transportation nodes; they are spaces where passenger experience and sustainability

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converge to enhance passenger satisfaction and contribute to the airport's green image (Bezerra & Gomes, 2020).

Research on airport experiences has evolved significantly, with growing attention given to elements such as environmental design, eco-friendly initiatives, and the psychological impact of airport environments on passengers. For instance, studies have found that eco-designs and green atmospherics in airport terminals positively affect passenger well-being, satisfaction, and brand engagement (Abdel-Gayed et al., 2023). Moreover, the role of service quality, physical environment, and layout accessibility has been linked to perceived safety and passenger satisfaction (Ma et al., 2022). Research also suggests that aesthetic and escapist experiences in airports influence passenger pleasure and satisfaction (Ryu & Park, 2019). These studies underscore the interplay between design, service quality, and sustainability in shaping the passenger experience.

While significant progress has been made in understanding the impact of airport experiences on passenger satisfaction, existing studies often focus on general airport service quality or customer experience as awhole. There remains a limited understanding of the specific role that an airport's green image plays in shaping passenger satisfaction, particularly in developing countries like Indonesia. Although studies have explored the effect of service quality, eco-design, and green atmospherics on customer satisfaction (Han et al., 2020), there is a lack of focused research on how sustainability initiatives influence customer perceptions in newly developed airports, such as Yogyakarta International Airport (YIA). This research aims to bridge this gap by investigating the extent to which passenger satisfaction is influenced by airport experience and the perception of the airport's green image.

Despite the growing awareness of the importance of sustainability in airport operations, the extent to which the airport experience affects passenger satisfaction and their perception of green image is not well understood. YIA, a newly established airport with modern infrastructure and a focus on sustainable operations, provides a unique opportunity to explore this relationship. While airport experience elements such as service quality and ambiance have been linked to satisfaction, the role of environmental factors, such as the airport's commitment to sustainability, remains underexplored. This lack of clarity poses a challenge for airport management, especially in an era where passenger expectations for eco-friendly travel experiences are on the rise (Boc et al., 2023). Addressing this issue is critical for airport managers to better align operational strategies with passenger expectations and sustainability goals.

The objectives of this research are to analyze the key components of the airport experience that influence passenger satisfaction at Yogyakarta International Airport (YIA). This includes identifying which aspects, such as entertainment, education, aesthetics, and escapism, have the most significant impact on passenger satisfaction. Additionally, the study aims to assess the influence of YIA's green image on passenger satisfaction, examining how the airport's sustainability initiatives contribute to travelers' overall experience. Another objective is to identify the specific elements

of the airport experience that shape passengers' perceptions of YIA's sustainability efforts, such as eco-friendly facilities, environmental campaigns, and green operational practices. Lastly, the research seeks to provide strategic recommendations for airport management to enhance the passenger experience and promote YIA's green image, thereby improving customer loyalty, sustainability awareness, and competitive positioning.

This research will make several theoretical and practical contributions to the field of airport management and aviation sustainability. Theoretically, it will deepen the understanding of how airport experience components—such as entertainment, education, aesthetics, and escapism—interact to shape passenger satisfaction and perception of green image. This will add to the existing literature on customer experience management in airport settings, as well as on sustainability in aviation. The practical contributions will inform airport managers, policymakers, and marketing teams at YIA about the key drivers of passenger satisfaction and green image perception. Insights from this study will enable airports to refine service quality and sustainability practices to enhance customer experience, strengthen brand image, and foster customer loyalty. By focusing on YIA, this research also offers valuable insights for developing airports in emerging markets, where balancing economic development with environmental sustainability is a key concern (Karaman & Atalık, 2024).

2. Theoretical Background

Experience Economy Theory
The Experience Economy Theory, introduced by Pine and Gilmore (1998), represents a paradigm shift in how businesses interact with consumers. Moving beyond the goods and services economies, the experience economy emphasizes creating memorable and immersive experiences as a primary value proposition. According to this theory, businesses can differentiate themselves in a competitive marketplace by offering experiences that engage customers not only on a functional level but also on an emotional one. Pine and Gilmore (1998) assert that these experiences can be categorized into four dimensions: educational, entertainment, aesthetic, and escapist. These dimensions provide a comprehensive framework to understand how businesses, including airports, can craft meaningful experiences that resonate with their customers.

1. **Educational Experiences:** These involve providing knowledge or skills to the consumer, thus engaging their intellect and encouraging personal development.
2. **Entertainment Experiences:** These involve passive participation from consumers and are designed to amuse and engage them, often through activities such as live performances or interactive displays.
3. **Aesthetic Experiences:** These are concerned with creating visually or atmospherically appealing environments that allow the consumer to appreciate the physical surroundings without necessarily requiring active participation.

4. **Escapist Experiences:** These involve deep, immersive activities that allow customers to "escape" from their daily lives and immerse themselves in a different reality or setting (Pine & Gilmore, 1998).

In the context of airports, these four dimensions can be applied to improve user satisfaction by enhancing the overall experience passengers have while waiting for flights or engaging with airport services. For instance, modern airports often incorporate art exhibitions, immersive digital experiences, or green spaces to make the terminal environment more enjoyable and memorable for travelers. This approach aligns with the broader trend toward experience-driven services, where creating an exceptional journey through the airport is as critical as the flight itself.

Applications of Experience Economy in Airport Settings

Several studies have explored the influence of the experience economy on airport settings, finding that the overall experience plays a crucial role in determining user satisfaction and airport image. Airports are increasingly regarded as spaces where customer experience extends beyond the utilitarian need for transportation and includes aspects of entertainment, relaxation, and even learning (Ryu & Park, 2019). For example, research conducted at Incheon International Airport highlights the importance of aesthetic and escapist experiences in enhancing user satisfaction. Aesthetic experiences at Incheon involve the careful design of the physical environment, including art installations, architectural aesthetics, and green spaces that contribute to a visually appealing airport terminal. Escapist experiences, on the other hand, involve immersive activities that allow passengers to disengage from the stress of travel and daily routines. These could range from digital games, cultural exhibitions, or lounge spaces designed to facilitate relaxation and comfort. The study found that these two experience dimensions—escapist and aesthetic—had a significant positive impact on airport users' enjoyment (Ryu & Park, 2019). This enjoyment, in turn, is linked to higher levels of overall satisfaction and a more favorable airport image.

The Role of Pleasure in Airport Experiences

Pleasure is a core element of the user experience and has a significant impact on satisfaction and the perception of an airport's image. According to Bigne et al. (2005), pleasure is the outcome of a positive interaction that results in basic emotional satisfaction. In the context of airports, the pleasure derived from aesthetic surroundings, comfortable facilities, and interactive services can enhance a traveler's emotional experience. The pleasure a user feels while interacting with airport elements—whether it's the ease of navigating through terminals, the visual appeal of the design, or the enjoyment of entertainment facilities—directly influences their level of satisfaction with the airport (Oliver, 1981).

Moreover, research at Incheon International Airport indicates that the higher the pleasure felt by users, the higher their level of satisfaction and the more positive the image they form of the airport (Ryu & Park, 2019). This is critical because an airport's image is not just a reflection of its functional capabilities, but also of the emotional and psychological satisfaction it provides to travelers. A positive image contributes to

an airport's competitiveness, as satisfied passengers are more likely to become repeat customers and promote the airport through word of mouth.

Green Experiences and the Influence on Satisfaction and Image

Building upon the Experience Economy Theory, this study aims to explore how "green experiences" at Yogyakarta International Airport (YIA) influence user satisfaction and the airport's green image. As sustainability becomes an increasingly important factor in business strategies, airports are adopting environmentally friendly practices such as energy-efficient buildings, waste reduction programs, and the use of renewable energy. These green initiatives are not only operational strategies but also experiential factors that can shape passengers' perceptions of the airport.

"Green experiences" refer to the incorporation of sustainability into the four dimensions of experience—educational, entertainment, aesthetic, and escapist. For example, green educational experiences might include displays or interactive programs that inform passengers about the airport's sustainability initiatives, energy use, or carbon footprint reduction efforts. Green entertainment experiences could involve activities that promote environmental awareness while entertaining passengers. Aesthetic experiences might involve the design of the airport's architecture to include green spaces, natural lighting, and eco-friendly materials that promote a sense of tranquility and environmental stewardship. Finally, green escapist experiences might be created through immersive environments such as virtual reality displays focused on nature conservation or green-themed relaxation zones(Sidiq et al., 2024a).

The incorporation of green elements into the overall airport experience is expected to create positive emotions and increase user satisfaction. Research suggests that green experiences can significantly enhance customer perceptions, leading to a more favorable image of the airport (Ryu & Park, 2019). This positive image is critical in the modern competitive landscape, where passengers are increasingly aware of environmental issues and prefer to support businesses that align with their sustainability values.

Hypotheses Development

Based on the Experience Economy Theory and previous research conducted at Incheon International Airport, this study proposes the following hypotheses to examine the relationship between green experiences, satisfaction, and the airport's green image:

1.   The Influence of Green Experiences on the Airport's Green Image

Research has shown that entertainment experiences aligned with green initiatives positively shape passenger perceptions of an airport's green image. Han et al. (2020) found that interactive green-themed play areas and entertainment facilities enhance passengers' perceptions of airport sustainability efforts.

H1A: Green entertainment experiences at airports have a positive influence on the airport's green image.

Educational displays and sustainability-themed awareness campaigns at airports positively influence passengers' perception of the airport's green image. Ryu & Park (2019) demonstrated that educational experiences increase passenger awareness, leading to a more positive view of airport sustainability.

H1B: Green educational experiences at airports have a positive influence on the airport's green image.

Aesthetic elements, such as natural green decor, indoor gardens, and eco-friendly architectural design, enhance the green image of airports. Han et al. (2020) found that nature-inspired aesthetics in airport environments positively influence passengers' perception of the airport's green image.

H1C: Green aesthetic experiences at airports have a positive influence on the airport's green image.

Immersive escapist experiences, such as interactive green spaces and virtual reality nature zones, significantly contribute to the airport's green image. Karaman & Atalık (2024) revealed that escapist experiences involving eco-themed activities increase passengers' perception of airport sustainability efforts.

H1D: Green escapist experiences at airports have a positive influence on the airport's green image.

2. The Influence of Green Experiences on Airport User Satisfaction

Entertainment experiences, especially those with green and nature-based themes, contribute to passenger satisfaction. Antwi et al. (2020) demonstrated that entertainment activities reduce travel stress and increase passenger satisfaction.

H2A: Green entertainment experiences at airports have a positive influence on airport user satisfaction.

Educational displays that increase passenger awareness of green initiatives contribute to positive passenger experiences and satisfaction. Baharuddin & Mahdzar (2020) emphasized the role of interactive educational content in enhancing passenger engagement and satisfaction.

H2B: Green educational experiences at airports have a positive influence on airport user satisfaction.

Green aesthetics, such as natural greenery, modern eco-friendly designs, and nature-inspired interiors, enhance passengers' sensory experience, leading to greater satisfaction. Kankaew (2020) noted that aesthetic elements such as architectural beauty, natural lighting, and cultural displays create a calming environment, leading to greater satisfaction.

H2C: Green aesthetic experiences at airports have a positive influence on airport user satisfaction.

Escapist experiences, such as nature-inspired immersive spaces or eco-friendly interactive activities, promote relaxation and reduce the perceived waiting time for passengers. Ryu & Park (2019) found that escapist experiences reduce travel-related stress, leading to higher levels of passenger satisfaction.

H2D: Green escapist experiences at airports have a positive influence on airport user satisfaction.

3. The Influence of Airport User Satisfaction on the Green Image
Passenger satisfaction significantly shapes passengers' perception of the airport's green image. Han et al. (2020) found that higher passenger satisfaction levels, driven by positive experiences with green initiatives, reinforce the airport's green image. Abdel-Gayed et al. (2023) revealed that passenger satisfaction mediates the relationship between service quality and the airport's brand image, including its sustainability image.
H3: Airport user satisfaction has a positive influence on the airport's green image.

4. The Mediating Role of Airport User Satisfaction
Passenger satisfaction plays a crucial mediating role between green entertainment experiences and the airport's green image. Karaman & Atalık (2024) found that when passengers have enjoyable entertainment experiences aligned with sustainability efforts, their satisfaction positively influences their perception of the green image.
H4A: Airport user satisfaction mediates the relationship between green entertainment experiences at airports and the airport's green image.

Educational experiences increase passenger knowledge and awareness, which in turn enhances passenger satisfaction and influences their perception of the airport's green image. Abdel-Gayed et al. (2023) revealed that educational content enhances user engagement and satisfaction, and this satisfaction positively affects the perception of the airport's sustainability efforts.
H4B: Airport user satisfaction mediates the relationship between green educational experiences at airports and the airport's green image.

Green aesthetic experiences influence passenger satisfaction, which then affects how passengers perceive the airport's sustainability image. Han et al. (2020) found that exposure to natural surroundings, greenery, and aesthetic beauty increases passenger satisfaction, which then strengthens the perception of the airport's green image.
H4C: Airport user satisfaction mediates the relationship between green aesthetic experiences at airports and the airport's green image.

Green escapist experiences increase passenger satisfaction by offering immersive and stress-reducing environments, which then positively influence their perception of the airport's green image. Ryu & Park (2019) demonstrated that immersive escapist experiences lead to higher satisfaction, which in turn influences the perception of airport sustainability.
H4D: Airport user satisfaction mediates the relationship between green escapist experiences at airports and the airport's green image.

This comprehensive structure clearly identifies each hypothesis, provides literature support, and highlights the key arguments for the role of green experiences, passenger satisfaction, and green image perceptions at airports.

Conceptual Framework

The conceptual framework for this study illustrates the relationship between green experiences, airport user satisfaction, and the airport's green image. The framework identifies four key dimensions of green experiences as independent variables: green entertainment experience, green educational experience, green aesthetic experience, and green escapist experience. These dimensions directly influence the perception of the airport's green image (H1A, H1B, H1C, H1D) as well as airport user satisfaction (H2A, H2B, H2C, H2D). Airport user satisfaction serves as a mediating variable that links the four green experience dimensions to the airport's green image (H4A, H4B, H4C, H4D). Additionally, airport user satisfaction directly influences the airport's green image (H3). This framework highlights the dual role of user satisfaction, which not only acts as an outcome of green experiences but also as a crucial mediator that strengthens the impact of these experiences on the perception of the airport's green image. The relationships between these constructs form a comprehensive model that explains how various aspects of green experiences contribute to enhancing both passenger satisfaction and the airport's green image.
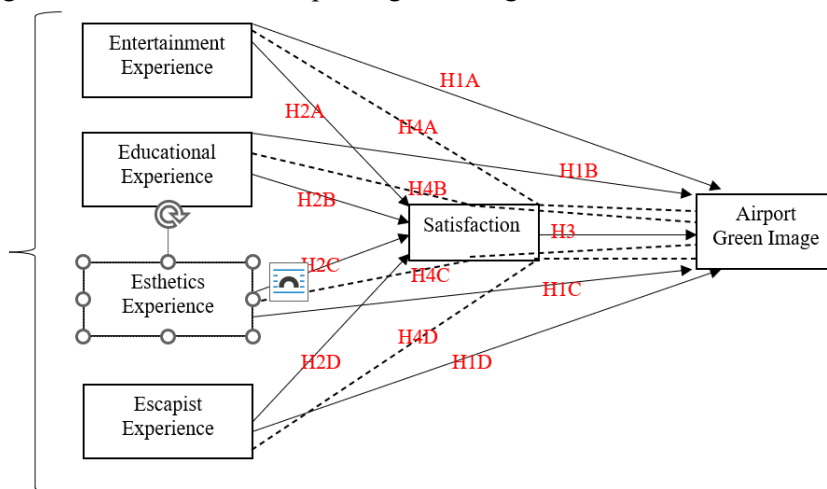

Figure 1. Conceptual Framework

3. Methodology

3.1 Research Design

This study adopts a **quantitative research design** aimed at examining the relationship between green experience dimensions and their impact on passenger satisfaction and the green image of Yogyakarta International Airport (YIA). The primary goal is to test hypotheses based on the Experience Economy Theory and assess the extent to which the implementation of green elements at the airport influences the airport's image and user satisfaction.

The data were collected through **surveys** distributed to visitors of YIA. Given the quantitative nature of the study, the survey methodology allows for the objective measurement of variables and ensures that relationships between green experiences and passenger satisfaction and green image can be rigorously tested (Yerimou &

Themistocleous, 2024). The use of a survey instrument also facilitates the collection of data from a large sample, enhancing the generalizability of the results.

To analyze the collected data, this study employs **Partial Least Squares Structural Equation Modeling (PLS-SEM)**. PLS-SEM is a statistical technique well-suited for predictive analysis, especially when dealing with complex models and small to medium-sized samples. In this study, PLS-SEM is particularly useful because it allows for the simultaneous assessment of multiple relationships between latent variables, such as green experience dimensions, satisfaction, and green image(A., 2024). This method is robust in handling reflective and formative constructs, making it ideal for examining the interrelationships between experiential dimensions and their outcomes.

The study includes the following **key variables**: the four green experience dimensions (entertainment, education, aesthetics, escapism) as independent variables, and passenger satisfaction and the green image of the airport as dependent variables (Krishnan et al., 2024). The PLS-SEM analysis was carried out to test these relationships and determine the significance and strength of the pathways between variables.

3.2 Population and Sample
The population targeted for this study consists of **all passengers passing through Yogyakarta International Airport (YIA)**. This includes domestic and international travelers, individuals traveling for business or leisure, and those with different demographic characteristics. Given that the study aims to explore how green experiences at the airport influence passenger satisfaction and perception, the target population reflects a broad and diverse group of airport users(Makatia et al., 2024).
To represent the population accurately, the study used a **random sampling** technique to select participants. Random sampling ensures that each individual within the population has an equal chance of being selected, thereby minimizing bias and enhancing the representativeness of the sample. The final sample size consists of **327 respondents**, which provides a sufficient data set for conducting robust statistical analysis using PLS-SEM. This sample size was determined based on a power analysis to ensure that the study would have adequate power to detect significant effects and relationships between the variables under investigation.

The respondents were asked to provide demographic information, including **age**, **gender**, and **frequency of airport visits**. This demographic data allows for further analysis to determine whether different segments of the population, such as frequent versus infrequent travelers or younger versus older passengers, experience the airport differently. These variables could also potentially influence perceptions of green initiatives and satisfaction levels.

In summary, the population and sample for this study are reflective of the broad range of passengers who use YIA. The random sampling method used ensures that the sample is representative of the larger population, while the sample size of 327 respondents provides a reliable basis for conducting the study's statistical analysis.

3.3 Data Collection

The primary method of data collection for this study was a **Likert-scale questionnaire** distributed to passengers at YIA. The questionnaire was designed to assess passengers' experiences and perceptions related to the airport's green initiatives, focusing on the dimensions of green entertainment, education, aesthetics, and escapism, as well as passenger satisfaction and the airport's green image(Pfeiffer et al., 2024).

The Likert scale used in the questionnaire consisted of five response levels, ranging from **"strongly disagree"** (1) to **"strongly agree"** (5). This scale allows respondents to express varying degrees of agreement or disagreement with the statements, thus capturing their attitudes and perceptions in a nuanced manner. Each item on the questionnaire was carefully worded to reflect the specific green experience dimensions and their potential impact on satisfaction and image.

Table 1. Measurement Items

Measure		Variables
Green Experience Economy	Green Entertainment Experience	YIA regularly organizes special events on environmental sustainability
		YIA provides activities that promote environmental awareness
		YIA offers entertainment that supports environmentally friendly practices
		YIA provides entertainment experiences that make you feel like you are contributing to environmental preservation
	Green Educational Experience	I can perceive environmental sustainability practices at YIA
		YIA has elements that stimulate my curiosity about environmental issues
		YIA has elements that spark my creativity in terms of environmental preservation
	Green Esthetic Experience	Overall, I like the environmentally friendly design of YIA
		YIA feels attractive and supports the green concept
		The environmentally friendly design of YIA aligns with its image as a green airport
		Spending time at YIA makes me feel engaged in a greener and more sustainable lifestyle
	Green Escapist Experience	YIA provides a refreshing feeling due to its efforts in environmental preservation
		YIA offers me a new experience in enjoying environmentally friendly technologies or initiatives
Satisfaction		I am satisfied with the overall green efforts at YIA
		YIA meets or exceeds my expectations as a green airport
		I am more satisfied with the green efforts at YIA compared to other airports
		Visiting YIA due to its commitment to the environment is a positive experience
Airports green image		YIA has a distinct image as a green airport
		YIA has a unique green image compared to other airports
		I can clearly envision the green image of YIA
		YIA is different from other airports in terms of environmental sustainability

The questionnaire covered the following key areas:

1. **Green entertainment experiences:** Questions focused on whether passengers felt entertained by green initiatives, such as green-themed displays or eco-friendly entertainment options at the airport.
2. **Green educational experiences:** Items assessed whether passengers found the airport's green initiatives informative or if they felt they learned something new about sustainability from their airport experience.
3. **Green aesthetic experiences:** Respondents were asked to rate the airport's physical environment, such as green spaces, eco-friendly architecture, and other visually appealing sustainable design elements.

4. **Green escapism experiences:** The questionnaire included questions about whether the airport environment allowed passengers to "escape" from the stress of travel through its sustainable features and immersive green elements.

In addition to these green experience dimensions, the questionnaire also included items related to:

1. **Passenger satisfaction:** Respondents were asked to evaluate their overall satisfaction with the airport, considering their experience with its green initiatives and other services.
2. **Green image:** Questions assessed passengers' perceptions of the airport's commitment to sustainability and its overall green reputation.

The questionnaire was distributed to passengers randomly within the airport's terminals. Efforts were made to collect data from a diverse group of travelers, including both domestic and international passengers, and those traveling for different purposes (e.g., business, leisure). The collected data were then coded and entered into a statistical software package for analysis(Cerdan-Chiscano, 2024).

3.4 Variables

This study focuses on several key variables, which are categorized as independent variables and dependent variables.

Independent Variables: The independent variables are the four dimensions of green experiences that passengers may encounter at the airport. These are:

1. **Green entertainment experiences:** This variable captures the extent to which passengers feel entertained by eco-friendly initiatives and sustainable activities at the airport.
2. **Green educational experiences:** This variable reflects the degree to which passengers perceive that they have learned something new about sustainability or environmental issues during their time at the airport.
3. **Green aesthetic experiences:** This variable measures how passengers rate the airport's visual appeal, especially in relation to green architecture, design, and eco-friendly features.
4. **Green escapist experiences:** This variable assesses whether passengers feel they have been able to escape from their everyday lives through immersive, sustainable features at the airport, such as green relaxation areas or eco-themed interactive experiences.

Dependent Variables: The study focuses on two key dependent variables:

1. **Passenger satisfaction**: This variable measures the overall satisfaction that passengers experience after interacting with the green features and other services at the airport.
2. **Green image**: This variable captures the passengers' perceptions of the airport's environmental responsibility and sustainability initiatives. It reflects how well the airport's green practices are perceived and contributes to its reputation as a green airport.
3. This research methodology section outlines the comprehensive approach taken to examine the relationship between green experience dimensions, passenger satisfaction, and the green image of Yogyakarta International Airport. The

quantitative design ensures that the study can objectively test its hypotheses, while the use of PLS-SEM allows for a thorough examination of the complex relationships between the variables (Karanki et al., 2024). The population and sample strategy ensures that the data collected represent a broad cross-section of airport users, while the Likert-scale questionnaire provides a reliable method for capturing passenger perceptions. Finally, the study's clear definition of independent and dependent variables ensures that the analysis will yield meaningful insights into how YIA's green initiatives affect passenger satisfaction and the airport's green image(Kontogiannis, 2024).

4. Empirical Findings/Result

4.1 Descriptive Analysis
The demographic profile of the 327 respondents provides valuable insights into the characteristics of Yogyakarta International Airport (YIA) visitors. The gender distribution indicates that a larger proportion of respondents were male (54.43%) compared to females (45.57%). This imbalance could suggest certain demographic patterns in airport usage that may be explored in future research. In terms of age distribution, the majority of respondents (56.57%) were between 20 and 29 years old, reflecting a youthful demographic. The relatively low participation from older respondents, with only 0.31% over 60 years old, suggests that the airport is primarily frequented by younger travelers.

Regarding visit frequency, most respondents (34.56%) had visited YIA 1-2 times, indicating that the majority of passengers were not frequent users of the airport. However, a significant portion of the sample (31.50%) had visited the airport more than 10 times, reflecting a group of frequent travelers. This variation in visit frequency suggests diverse levels of familiarity with the airport, which may influence satisfaction and perceptions of the airport's green image.

The purpose of visits was predominantly transportation-related, with 60.55% of respondents indicating their visits were for departures or arrivals. This is consistent with the primary function of airports as transit hubs. Visit duration varied, with most visits lasting 1-2 hours (44.95%), while 27.22% of respondents reported visits exceeding 3 hours, likely involving longer wait times or layovers. In terms of income, the majority of respondents (40.37%) earned between IDR 2,300,001 and IDR 4,500,000, while 16.82% earned less than IDR 2,300,000, suggesting that the respondents represented a broad range of economic backgrounds.

Table 2. Sample Characteristics

Classification		N	%
Gender	Male	178	54,43
	Female	149	45,57
Age	20 to 29 years old	185	56,57
	30 to 39 years old	114	34,86
	40 to 49 years old	24	7,34
	50 to 59 years old	3	0,92
	60 years old or older	1	0,31
Number of visits	1-2 times	113	34,56
	3-5 times	94	28,75
	6-10 times	17	5,20
	11 times or more	103	31,50
Purpose of visits	Arrival or departure	198	60,55
	Transfer	3	0,92
	Business	29	8,87
	Other	97	29,66
Time spent at the airport	Less than 1 h	51	15,60
	1-2 h	147	44,95
	2-3 h	40	12,23
	3 h or more	89	27,22
Monthly income	Less than Rp. 2.300.000	55	16,82
	Rp. 2.300.000 - Rp. 4.500.000	132	40,37
	Rp. 4.500.001 - Rp. 9.000.000	65	19,88
	More than Rp. 9.000.000	75	22,94
Total		327	100,00

This descriptive analysis offers a comprehensive overview of the demographic and economic characteristics of the study's respondents, providing context for the subsequent analyses of their experiences and perceptions of YIA.

4.2 Outer Model Testing

To validate the measurement model, the study conducted convergent validity tests to assess whether the items within each construct accurately measured the intended concepts. The results show that the loading factors for all measured variables exceeded the threshold of 0.70, confirming that the survey items strongly correlated with their respective constructs. This suggests that the questionnaire items were appropriate and effectively captured the dimensions of green experiences, satisfaction, and green image.

Table 3. Results of Confirmatory Factor Analysis

Configuration Concept	Measurement Items	AVE	Cronbach's Alpha	Composite Reliability
Entertainment	Entertainment1	0,849	0,886	0,921
	Entertainment2	0,840	0,886	0,921
	Entertainment3	0,880	0,886	0,921
	Entertainment4	0,884	0,886	0,921
Education	Education1	0,880	0,894	0,934
	Education2	0,928	0,894	0,934
	Education3	0,917	0,894	0,934
Esthetics	Esthetics1	0,870	0,908	0,935
	Esthetics2	0,895	0,908	0,935
	Esthetics3	0,895	0,908	0,935
	Esthetics4	0,879	0,908	0,935
Escapism	Escapism1	0,924	0,833	0,923
	Escapism2	0,927	0,833	0,923
Satisfaction	Satisfaction1	0,880	0,898	0,929
	Satisfaction2	0,902	0,898	0,929
	Satisfaction3	0,872	0,898	0,929
	Satisfaction4	0,845	0,898	0,929
Airport Green Image	Image1	0,840	0,898	0,929
	Image2	0,861	0,898	0,929
	Image3	0,900	0,898	0,929
	Image4	0,900	0,898	0,929

Additionally, the Average Variance Extracted (AVE) values for all constructs were above the acceptable level of 0.50, indicating that more than half of the variance in

the indicators is explained by the constructs. This high level of AVE further affirms the reliability of the measurement model. The study also evaluated the internal consistency of the constructs using Cronbach's Alpha and composite reliability. Both metrics yielded values exceeding the minimum criterion of 0.60, confirming that the survey items consistently measured the constructs across respondents. This consistency enhances the reliability of the research findings.

Overall, the results of the outer model testing indicate that the constructs used in the study—green experience dimensions, satisfaction, and green image—are valid and reliable, providing a robust foundation for further analysis and hypothesis testing.

4.3 Hypothesis Testing
The hypothesis testing revealed significant relationships between the dimensions of green experiences and both passenger satisfaction and the green image of YIA. Educational experiences emerged as a critical factor positively influencing both satisfaction and the green image. The analysis yielded a T-statistic of 4.619 for satisfaction ($p < 0.001$), indicating that educational initiatives, such as sustainability-related information and learning opportunities at the airport, significantly enhance passenger satisfaction. Similarly, the green image of the airport was positively influenced by educational experiences, with a T-statistic of 2.019 ($p < 0.05$). This suggests that passengers who engage with educational content related to environmental sustainability perceive YIA as a greener airport.

Escapism experiences also demonstrated positive effects on both satisfaction and the green image. The T-statistic for satisfaction was 4.846 ($p < 0.001$), highlighting that immersive and escapist experiences provided by the airport, such as green relaxation areas or eco-themed interactive zones, significantly enhance passenger enjoyment. Escapism also positively impacted the green image, as indicated by a T-statistic of 2.198 ($p < 0.05$), suggesting that the ability to momentarily escape from daily life through these experiences contributes to a stronger perception of YIA's environmental friendliness.

In contrast, entertainment and aesthetic experiences had negligible impacts on the green image, as the corresponding p-values exceeded 0.05. While entertainment programs at YIA have been well-received by visitors and even earned international recognition from the Airport Service Quality (ASQ) and Airports Council International (ACI), these aspects do not significantly influence passengers' perceptions of the airport's sustainability efforts. Aesthetic experiences, which include the visual and architectural appeal of the airport, also did not significantly impact the green image, possibly due to budget constraints and limited investments in aesthetic enhancements due to lower-than-expected passenger numbers. This finding suggests that while entertainment and aesthetics contribute to the overall passenger experience, they are not perceived as central to the airport's green image.

Table 4. Results of Hypothesis testing

	Hypothesis Path				Original Sample (O)	T Statistics (O/STDEV)	f-Square	P Values	Conclusion
H1A	Green entertainment experience	→	Airport's green image		0,049	0,717	**0,003**	**0,474**	Negative Influence and not significant
H1B	Green educational experience	→	Airport's green image		0,150	2,019	0,022	0,044	Positive Influence and Significant
H1C	Green esthetics experience	→	Airport's green image		-0,058	0,937	**0,003**	**0,349**	Negative Influence and not significant
H1D	Green escapist experience	→	Airport's green image		0,165	2,198	0,030	0,028	Positive Influence and Significant
H2A	Green entertainment experience	→	Satisfaction		0,051	0,871	**0,004**	0,384	Positive Influence and Significant
H2B	Green educational experience	→	Satisfaction		0,289	4,619	0,112	0,000	Positive Influence and Significant
H2C	Green esthetics experience	→	Satisfaction		0,346	6,037	0,174	0,000	Positive Influence and Significant
H2D	Green escapist experience	→	Satisfaction		0,292	4,846	0,131	0,000	Positive Influence and Significant
H3	Satisfaction	→	Airport's green image		0,612	6,816	0,306	0,000	Positive Influence and Significant
H4A	Green entertainment experience	→	Satisfaction	→ Airport's green image	0,031	0,858		**0,391**	Disable to mediate
H4B	Green educational experience	→	Satisfaction	→ Airport's green image	0,177	3,992		0,000	Able to mediate
H4C	Green esthetics experience	→	Satisfaction	→ Airport's green image	0,212	4,366		0,000	Able to mediate
H4D	Green escapist experience	→	Satisfaction	→ Airport's green image	0,179	3,498		0,001	Able to mediate

4.4 Mediating Role of Satisfaction

Passenger satisfaction was found to mediate the relationship between educational, aesthetic, and escapism experiences and the green image of YIA. The analysis revealed that satisfaction amplifies the effects of these green experiences on the green image, indicating that passengers who enjoy their green experience are more likely to perceive YIA positively as an environmentally responsible airport. This mediating role highlights the importance of focusing on enhancing passenger satisfaction through well-designed green experiences to bolster the airport's green image and overall competitive standing.

Discussion
1. The Influence of Green Experiences on the Airport's Green Image

The findings for Hypothesis 1 reveal mixed results regarding the impact of green experiences on the green image of Yogyakarta International Airport (YIA). Green educational experiences (H1B, O=0.150O = 0.150O=0.150, T=2.019T = 2.019T=2.019, p=0.044p = 0.044p=0.044) and green escapist experiences (H1D, O=0.165O = 0.165O=0.165, T=2.198T = 2.198T=2.198, p=0.028p = 0.028p=0.028) showed a significant positive influence on the airport's green image. This indicates that passengers value these experiences as they directly engage with and emphasize sustainability efforts. In contrast, green entertainment experiences (H1A, O=0.049O = 0.049O=0.049, T=0.717T = 0.717T=0.717, p=0.474p = 0.474p=0.474) and green aesthetic experiences (H1C, O=−0.058O = -0.058O=−0.058, T=0.937T = 0.937T=0.937, p=0.349p = 0.349p=0.349) had no significant effect on the green image. These results suggest that passive experiences like entertainment and aesthetic elements, which may enhance the ambiance and enjoyment, are insufficient to influence the perception of YIA's sustainability efforts. Instead, active and immersive experiences such as educational and escapist activities have a more direct and meaningful impact.

The significant influence of green educational experiences aligns with prior research, such as Ryu & Park (2019), which highlighted the role of informational displays and sustainability campaigns in shaping passenger perceptions of green airports. Similarly, the positive influence of escapist experiences corroborates findings by Han et al. (2020), who demonstrated that immersive green spaces and activities help foster emotional engagement and reinforce passengers' perceptions of sustainability.

However, the non-significant impact of green entertainment and aesthetic experiences diverges from some studies, such as Antwi et al. (2020), which showed that entertainment activities can influence satisfaction. These differences may stem from the limited integration of environmental themes into YIA's entertainment and aesthetic elements, as noted by Karaman & Atalık (2024).

Theoretically, the findings support the Experience Economy Theory (Pine & Gilmore, 1998), which emphasizes the role of active and participatory experiences in shaping brand perceptions. The significant impact of educational and escapist experiences reinforces the idea that interactive and immersive engagements are more effective at influencing passengers' perceptions of YIA's green image than passive experiences, such as entertainment and aesthetics. These results expand branding and sustainability theories by demonstrating that participatory experiential design plays a pivotal role in building the image of an environmentally responsible airport. Practically, the results highlight that airport managers should prioritize green educational and escapist experiences to strengthen YIA's green image. Interactive displays, guided tours, and eco-awareness campaigns can effectively inform passengers about sustainability initiatives, while immersive escapist experiences, such as eco-themed relaxation areas and interactive green spaces, create emotional engagement. Entertainment and aesthetic experiences, while valuable for general enjoyment, should be strategically integrated with educational or escapist themes to more effectively contribute to the airport's green image.

2. The Influence of Green Experiences on Airport User Satisfaction

The findings for Hypothesis 2 reveal that all four dimensions of green experiences—green entertainment (H2A), educational (H2B), aesthetic (H2C), and escapist experiences (H2D)—have a positive and significant influence on passenger satisfaction at Yogyakarta International Airport (YIA). Among these, green aesthetic experiences ($O=0.346$, $T=6.037$, $p=0.000$) and green escapist experiences ($O=0.292$, $T=4.846$, $p=0.000$) had the strongest impacts, followed by green educational experiences ($O=0.289$, $T=4.619$, $p=0.000$) and green entertainment experiences ($O=0.051$, $T=0.871$, $p=0.384$). These results suggest that while all dimensions contribute to satisfaction, aesthetic and escapist experiences are particularly influential, likely because they provide sensory pleasure and emotional engagement. Green entertainment experiences, while positive, had a weaker influence, potentially due to their limited integration with broader passenger expectations or sustainability themes.

These results align with prior studies demonstrating the importance of multi-dimensional experiences in enhancing passenger satisfaction. For instance, Ryu & Park (2019) found that aesthetic and escapist experiences significantly influence satisfaction by engaging passengers emotionally and providing a sense of escape from routine. Similarly, Han et al. (2020) emphasized that aesthetic and escapist elements in green environments enhance well-being and satisfaction. Green educational experiences have also been highlighted in prior research as critical for increasing

awareness and satisfaction, as they actively inform passengers about sustainability efforts (Abdel-Gayed et al., 2023). The relatively weaker influence of entertainment experiences is consistent with studies suggesting that passive entertainment activities may not directly address passengers' deeper needs or expectations related to sustainability (Karaman & Atalık, 2024).

Theoretically, the findings extend the Experience Economy Theory by confirming that experiential dimensions—particularly aesthetic, escapist, and educational experiences—are key drivers of passenger satisfaction. The results emphasize the importance of sensory, emotional, and cognitive engagement in creating satisfying passenger experiences, supporting experiential marketing models. Furthermore, the results build on the Service-Dominant Logic (Vargo & Lusch, 2004), highlighting how value is co-created through active passenger participation in educational and escapist experiences. Practically, these findings suggest that YIA airport managers should prioritize aesthetic, escapist, and educational experiences to enhance passenger satisfaction. Natural design elements, eco-friendly architecture, and immersive sensory elements like greenery and natural lighting should be incorporated into terminal design to enhance the aesthetic experience. Escapist experiences, such as interactive nature-based installations and green-themed relaxation zones, provide passengers with a sense of escape, thereby reducing travel-related stress. Finally, educational experiences, such as sustainability-themed exhibitions and interactive learning kiosks, should be leveraged to inform passengers and increase engagement. While entertainment experiences had a weaker influence, integrating sustainability messages into entertainment activities, like eco-themed games or virtual reality experiences, could enhance their impact on satisfaction.

3. The Influence of Airport User Satisfaction on the Green Image
The findings for Hypothesis 3 demonstrate that passenger satisfaction significantly and positively influences the perception of Yogyakarta International Airport's (YIA) green image ($O=0.612$, $T=6.816$, $p=0.000$). This result highlights the critical role of passenger satisfaction as a driver of how passengers perceive the airport's commitment to sustainability. When passengers are satisfied with their overall airport experience, they are more likely to view the airport's green initiatives, such as eco-friendly operations, energy-saving measures, and waste management programs, in a favorable light. This strong effect underscores satisfaction as a mediating factor between various airport experiences and the green image, suggesting that fostering satisfaction can amplify the airport's sustainability perception.

This finding is consistent with prior studies emphasizing the link between satisfaction and positive brand perceptions, including sustainability images. For example, Han et al. (2020) found that passenger satisfaction derived from positive experiences in green airport environments contributes to stronger perceptions of the airport's environmental commitment. Similarly, Abdel-Gayed et al. (2023) demonstrated that satisfied passengers are more likely to associate an airport with sustainability initiatives, reinforcing the connection between satisfaction and a positive green image.

These findings highlight the importance of satisfaction as a bridge between operational strategies and branding outcomes.

4. The Mediating Role of Airport User Satisfaction

The findings for Hypothesis 4 reveal that passenger satisfaction serves as a significant mediator in the relationship between green educational, aesthetic, and escapist experiences and Yogyakarta International Airport's (YIA) green image. The mediation effect for green educational experiences (O=0.177O = 0.177O=0.177, T=3.992T = 3.992T=3.992, p=0.000p = 0.000p=0.000) indicates that educational initiatives significantly enhance satisfaction, which in turn strengthens passengers' perception of YIA's green image. Similarly, the mediation effect of aesthetic experiences (O=0.212O = 0.212O=0.212, T=4.366T = 4.366T=4.366, p=0.000p = 0.000p=0.000) highlights that aesthetic elements such as natural design, eco-friendly architecture, and green-themed decor contribute to passenger satisfaction, thereby reinforcing the airport's green image. The mediation effect for escapist experiences (O=0.179O = 0.179O=0.179, T=3.498T = 3.498T=3.498, p=0.001p = 0.001p=0.001) demonstrates that immersive activities and interactive green-themed relaxation areas positively influence passenger satisfaction, which ultimately enhances the airport's perceived green image.

In contrast, green entertainment experiences did not demonstrate a significant mediation effect (O=0.031O = 0.031O=0.031, T=0.858T = 0.858T=0.858, p=0.391p = 0.391p=0.391), suggesting that entertainment activities do not sufficiently impact satisfaction to influence the airport's green image. This implies that while entertainment experiences may increase passenger enjoyment, they do not create a meaningful link between satisfaction and perceptions of environmental sustainability. These results collectively indicate that airport managers should prioritize educational, aesthetic, and escapist experiences as the primary pathways for enhancing both satisfaction and YIA's green image.

These findings are consistent with previous studies that emphasize the role of satisfaction as a key mediator in experiential marketing and branding. Ryu & Park (2019) highlighted that satisfaction serves as a bridge between experiential design and brand perception, with positive airport experiences contributing to higher satisfaction and a better overall image of the airport. The mediation of satisfaction is also consistent with findings by Han et al. (2020), which emphasized the role of satisfaction in connecting environmental design with passengers' mental well-being and brand perceptions. The absence of a mediating role for green entertainment experiences aligns with studies suggesting that entertainment experiences are often viewed as recreational rather than sustainability-related, thereby reducing their potential to influence perceptions of an airport's environmental responsibility (Karaman & Atalık, 2024).

Theoretically, the findings contribute to the Theory of Planned Behavior (Ajzen, 1991) by confirming the mediating role of satisfaction in shaping passengers' perceptions of sustainability. The results demonstrate that satisfaction acts as an essential attitudinal variable that connects the impact of experiential dimensions

(educational, aesthetic, and escapist) to sustainability perceptions. This extends experiential marketing models, highlighting that satisfaction is not just an outcome but a key mechanism through which green experiences influence broader brand perceptions. By integrating the role of satisfaction as a mediator, this study bridges the gap between experiential design and sustainability branding, offering a more holistic understanding of how different dimensions of passenger experience contribute to YIA's green image. The findings reinforce existing theories by showing that sensory (aesthetic), emotional (escapist), and cognitive (educational) engagement positively influence satisfaction, which subsequently enhances perceptions of the airport's environmental responsibility.

For airport managers, the mediation role of satisfaction has significant practical implications. It highlights the importance of designing experiential elements that increase passenger satisfaction as a pathway to improve the airport's green image. Simply offering green experiences, such as aesthetic and entertainment features, is insufficient unless these experiences also generate high passenger satisfaction. YIA managers should prioritize experiences that engage passengers emotionally, cognitively, and sensorially to ensure satisfaction. For example, educational experiences should go beyond static signage to include interactive displays and participatory learning activities, such as touchscreens or augmented reality exhibits showcasing the airport's sustainability initiatives. Aesthetic experiences should emphasize natural design elements, such as green walls, indoor gardens, and eco-friendly architectural features, to stimulate sensory engagement. Escapist experiences, such as immersive green-themed zones, nature-inspired relaxation areas, and virtual reality tours of YIA's sustainability projects, can provide emotional escape and enhance satisfaction. Since entertainment experiences did not have a significant mediating role, airport managers should focus on integrating educational or escapist themes into entertainment activities, ensuring that entertainment experiences also contribute to satisfaction and sustainability perceptions.

5. Conclusions

The findings of this study highlight the crucial role of educational and escapist experiences in shaping passenger satisfaction and the green image of Yogyakarta International Airport (YIA). These dimensions of the airport experience were found to have a direct and significant impact on how passengers perceive the airport's commitment to sustainability. Educational experiences, such as information campaigns on environmental initiatives, significantly enhance passenger knowledge and foster a positive perception of YIA's green image. Similarly, escapist experiences, such as immersive and sustainability-themed activities, provide passengers with emotional engagement and a break from their routines, ultimately leading to higher satisfaction and a stronger perception of YIA's sustainability efforts.

In contrast, entertainment and aesthetic experiences, while valuable for the overall passenger experience, do not significantly influence passenger satisfaction or the airport's green image. This distinction implies that, although aesthetic appeal and

entertainment options contribute to passenger comfort, they are not perceived as integral to YIA's sustainability efforts. As a result, airport management should prioritize the development of educational and escapist experiences, as these elements are more effective in reinforcing the airport's environmental reputation and improving passenger satisfaction. This targeted focus will enable YIA to better align its operational strategies with passengers' growing demand for eco-friendly and meaningful travel experiences.

These findings offer several strategic implications for YIA's management. First, YIA should strengthen its educational initiatives by providing visible, interactive, and informative content on its green initiatives, such as energy conservation, waste management, and carbon reduction efforts. Second, immersive escapist experiences, like eco-themed rest areas, interactive green displays, and stress-reducing green zones, should be prioritized to create a memorable and meaningful airport experience. Finally, as sustainability becomes a critical differentiator in the competitive aviation sector, YIA should adopt a dynamic approach to strategy development, continuously updating its green initiatives to meet changing passenger expectations. This proactive approach will not only boost passenger satisfaction and loyalty but also solidify YIA's position as a leader in sustainable aviation practices.

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