

Article

# Enhancing sustainable passenger experience through duty-free shopping at King Fahd Airport: A multimodal perspective

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Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/by/4.0/ **Abstract:** With the increasing significance of travel retail within the global tourism industry, understanding the effects of duty-free shopping experiences on traveler well-being and brand perceptions has become crucial for enhancing customer satisfaction and engagement. This study examines the relationships between duty-free shopping experiences, traveler well-being, and brand perceptions at King Fahd International Airport. Utilizing a quantitative research approach, data were collected from 412 passengers who had recently engaged with duty-free shops. The study incorporated four key experiential dimensions—pragmatic, sociability, hedonic, and usability experiences—alongside well-being, brand engagement, brand experience, and word-of-mouth (WOM) advocacy. The findings indicated positive associations between well-being and pragmatic, hedonic, and usability experiences. Moreover, well-being significantly influenced brand engagement and brand experience, but not WOM. Brand engagement was found to be a significant predictor of brand experience, while it had no significant effect on WOM. Additionally, WOM did not significantly influence brand experience. These insights contribute to a comprehensive understanding of the intricate interplay between shopping experiences, well-being, and brand-related outcomes, providing valuable guidance for airport retailers and marketers to optimize traveler satisfaction and engagement.

**Keywords:** traveler well-being; airport experience; retail perception; duty-free shopping; brand engagement

#### 1. Introduction

Many benefits, tourism is of primary importance to the world economy, to cultural exchange, and to the development of various destinations (Ursache, 2015). Understanding the impacts caused by tourism however requires understanding its sub elements that attributes to this impact. As one of the most essential elements that have substantial effects, shopping is a critical element that can impact tourism in different ways. For instance, it is increasingly recognized that shopping is one of the universal activities that benefits tourists economically, psychologically, and socially. The shopping opportunities offered by tourist destinations often reflect the culture and identity of the destinations that tourists visit through souvenirs, gifts, and unique items (Sandeep and Vinod, 2014).

Duty-free shops, such as those available at airports and other border crossings,

often carry a variety of elements and aspects for travelers to enjoy, which can impact the individual experience (Martín et al., 2019). Duty-free shopping helps the travel retail business thrive and sustain itself and are vital players in the global retail landscape. Travelers can enjoy big savings as well as tax free shopping at duty free shops. Moreover, duty free shops offer a global and diverse range of products to travelers to select from. They are also convenient for travelers considering their strategic location. Besides retailing, they have significant economic and revenue benefits for regions where they operate (Sandeep and Vinod, 2014). Several benefits to the countries are attributed to duty-free shopping, such as larger employment opportunities, higher consumption, and faster economic growth in tourist destinations (Sohn and Lee, 2016). Duty-free shops also contribute considerably to airport and other travel hub earnings. In exchange for fees and rentals, these shops provide airport authorities with non-aeronautical revenue streams. In addition, duty-free shops offer marketing opportunities for different brands (Thubert et al., 2017). A duty-free shop's brand engagement strategy involves how the different brands engage and interact with the customers to provide travelers with outstanding experiences, boost their purchases, and develop brand loyalty among them. Thus, appropriate utilization of duty-free shops as a promotional and marketing tool can be a great way for brands to engage with customers (Thubert et al., 2017). International audiences may be targeted by brands as a way to introduce new products, run advertising campaigns, as well as increase brand awareness. In order for brand engagement strategy to work effectively, factors such as strategic placement, interactive displays, personalized experiences, digital engagement, and other fac-tors must be taken into consideration (Hsu and Tang, 2019).

The overall experiences, including the brand experience, as well as the wellbeing of travelers in the concept of duty-free shops is also an important point for consideration for any destination. In general, an engaged traveler is likely to be attracted to brands that take an active role in promoting a positive and holistic travel experience. Moreover, positive impacts on the travelers' wellbeing in terms environmental considerations, exclusive unique health products, discounts, and savings, as well as other factors can also contribute to this overall positive experience. At the same time, travelers with positive experiences are also more likely to recommend specific destinations and places to their family and friends, also known as word of mouth (WOM) (Park and Park, 2015). The act of sharing personal experiences, thoughts, and recommendations with others can have a profound impact on their perceptions and beliefs of others, thus can impact other individuals and their future duty-free shops experience. In order to have better understanding of travelers' dutyfree experience, the present study aims to explore the relationships between various factors related to travelers' experiences in duty-free shops and their impact on wellbeing, brand engagement, brand experience, and word of mouth among travelers shopping in duty-free shops at King Fahd Airport. Depending on the study's findings, we would uncover strategies that duty-free shops and brands can employ to enhance the overall customer experience and increase positive WOM and brand engagement.

#### 2. Review of literature

# 2.1. Pragmatic, hedonic, sociability, and usability experiences on travelers wellbeing

The well-being of travelers, particularly in the aviation sector, is significantly influenced by four domains of experience: pragmatic, hedonic, sociability, and usability (Kim et al., 2019). Pragmatic experience pertains to the practical and utilitarian aspects of the travel experience. In aviation, it involves factors such as flight punctuality, luggage handling, and the efficiency of check-in procedures (Kale et al., 2021). A smooth and hassle-free pragmatic experience can reduce stress and enhance the overall well-being of travelers (Kale et al., 2021). Hedonic experiences are those that bring pleasure and enjoyment (Miao et al., 2011). In the context of aviation, this could include the comfort of the seats, the quality of in-flight entertainment, or the taste of the food served on board. Positive hedonic experiences can contribute to a sense of satisfaction and happiness, thereby enhancing travelers' well-being. Sociability experience relates to the social aspects of the travel experience (Kim et al., 2019). In the airline industry, it could involve interactions with flight attendants, copassengers, or even the broader cultural exchange facilitated by air travel (Akram and Kortam, 2020; Azevedo, 2015). Positive sociability experiences can foster a sense of connection and belonging, which are key components of well-being. Finally, usability refers to how easy and intuitive it is to use the services and facilities provided. This could include the ease of navigating the airline's website, the clarity of signage at the airport, or the intuitiveness of the in-flight controls. A high level of usability can reduce frustration and contribute to a more positive overall travel experience, thereby enhancing well-being (Aviationknowldge, 2023; Ekşioğlu et al., 2013).

Different aspects that tourists experience while traveling can impact their sense of well-being. The association between the different experiences encountered by travelers with their well-being perception has been assessed by several prior studies. A study in China on 742 Chinese tourists assessed the association between duty shop experiences on the tourists' well-being (Kim et al., 2019). The study reported that several experience factors influenced travelers' perceptions of well-being, including pragmatic, hedonic, and sociability experiences (Kim et al., 2019). In another similar study in China, Hwang et al.'s (2023) study findings revealed that both utilitarian and hedonic buying values had a substantial impact on brand prestige. Similarly, a literature review by Chen and Petrick (2013) showed that multiple prior papers have demonstrated favorable impacts of different travel experiences on health the health and wellness of travelers. Another study by Abdel-Gayed et al. assessed the effect of experience factors on wellbeing factor and reported experiences of travelers to be a significant predictor of their wellbeing (Abdel-Gayed et al., 2023). According to Abdel-Gayed et al. (2023), the eco-design of airport buildings and a nice ambiance have been independently linked to passenger well-being, since they minimize stress on travelers and facilitate the purchasing process. In another study by Zhang et al. (2023), positive emotions and tourists' engagement were associated with higher satisfaction and sense of well-being. Ghazi and Ammar (2018) argue that the goal of duty-free shops should be to create positive emotions and experiences, which will

support positive image perceptions and enhance well-needing. This could come in different forms, such as creating a comfortable environment for travelers to enjoy, maintaining pleasant personal interactions between employees and tourists, and ensuring the shops maintain an overall high level of hospitality (Ghazi and Ammar, 2018). Healing effects can be also observed when the eco designed implemented targets reducing negative emotions among travelers, such as depression, stress, and others (Abdel-Gayed et al., 2023). Based on the aforementioned observations, we hypothesize the following:

H1a: Pragmatic experience significantly impacts the well-being of airline travelers.

H1b: Hedonic experience significantly impacts the well-being of airline travelers.

H1c: Sociability experience significantly impacts the well-being of airline travelers.

H1d: Usability experience significantly impacts the well-being of airline travelers.

# 2.2. Travelers' wellbeing effect on brand engagement, word-of-mouth (WOM), and brand experience

Traveler well-being encompasses a number of factors, including physical health, emotional well-being, security, and others. These well-being factors were linked with different attitudes among travelers, in terms of their engagement and interactions with brands, their brand recommendations to others, and also impacted their overall travel experience. The physical environment of airports, for example, plays a crucial role in improving travelers' perceptions and wellbeing (Abdel-Gayed et al., 2023). Airlines can therefore enhance brand experience by adopting practices that promote traveler wellbeing. According to a recent study by Joshi and Garg (2020) emotional well-being is a critical factor when it comes to determining the brand's fate. Joshi and Garg (2020) added that policy and strategy makers must therefore focus on stimulating positive emotions among travelers to ensure brand success. In addition, specific brand selection and brand engagement in the travel and tourism industry can be profoundly influenced by the well-being of travelers. In a study by Hwang, Joo and Kim, brand reputation was shown to be a strong predictor of well-being perceptions, and well-being perceptions influenced the choice of brands favorably (Hwang et al., 2023). Another study conducted at an international airport in Saudi Arabia (Abdel-Gayed et al., 2023) found that travelers' wellbeing was significantly and independently predicted by the eco-design of the airport and brand engagement. This suggests that airlines can enhance brand engagement by focusing on factors that improve traveler wellbeing.

As for the association with word of mouth, a study by J. J. Kim et al. (2018) explained that individual perception of wellbeing is associated with word of mouth. When travelers are satisfied and well taken care of, they are more likely to leave positive reviews and recommend the brand to friends and family (J. J. Kim et al., 2018). Similarly, H. C. Kim et al. (2015) support this fact as they emphasized that it is more likely for travelers to share their experiences verbally and online when they have positive and satisfying experiences that prioritize their well-being. Research has shown that the perceived quality of a destination, which can be influenced by traveler wellbeing, has a significant, positive effect on tourist satisfaction and WOM (Wang et

al., 2017). For airlines, this implies that enhancing traveler wellbeing can lead to positive WOM, potentially attracting more passengers. Regardless of the established association between in-dividual wellbeing and word of mouth, Wangenheim and Bayón (2004) explained that word of mouth is often mediated by multiple factors, which can impact its association with other factors including individual perceptions. Therefore, based on the above evidence, we postulated the following:

H2: Travelers' well-being significantly impacts brand engagement.

H3: Travelers' well-being significantly impacts the word-of-mouth.

H4: Travelers' well-being significantly impacts brand experience.

# 2.3. Brand engagement effect on word-of-mouth (WOM), and brand experience

In a competitive marketplace, brands that are proactive and prioritize their customers' well-being not only help build positive travel experiences but also ensure long-term success. In order to create brand engagement, Abdel-Gayed et al. (2023) explains that it's important to look at both the psychological perspective and the interaction between the individual with the brand. Individuals who are happy with their brand experiences are more likely to be engaged in the same brand when the experiences aid in positive emotion and other feelings, according to Ha and Perks (2005). Thus, Farhat et al. (2020) explain that brand interaction is an important factor to consider as part of enhancing traveler's brand engagement and increasing their loyalty to the brand. Trinanda et al. (2021) argued from another perspective, which is the individual attachment. According to the paper, place attachment has a considerable association with memorable travel experience and hedonic well-being (Trinanda et al., 2021). In order to make the customer engaged and create attachment between them and the brand, service providers must focus on multiple brand experience aspects to target the physical, mental and emotional wellbeing, according to different studies (Abdel-Gayed et al., 2023; Farhat et al., 2020). Moreover, Ahn et al. (2015) in their study explained that brand prestige was shown to be a strong predictor of well-being perceptions, and well-being perceptions influenced brand preference favorably. In addition, Rasool et al. (2021) argue that it's important to consider the fact that the time to get engaged in an airport brand and develop positive perception and experience may vary between individuals, thus, impact the direction of this association.

As for word of mouth, brand engagement can significantly influence WOM, especially in the context of service industries like airlines (Gómez-Suárez and Veloso, 2020; Siguaw et al., 2020). Positive WOM enhances servicescape satisfaction, and WOM credibility positively moderates this relationship. This implies that when customers have a positive engagement with a brand, they are more likely to share their experiences, thereby influencing the perceptions of potential customers. Acharya reported that the level of brand familiarity was positively correlated with customer brand engagement; self-identification had a positive correlation with word-of-mouth communications as well (Acharya, 2020). As a consequence, the following hypotheses were set:

H5: Brand engagement significantly impacts the word-of-mouth of airline travelers.

H6: Brand engagement significantly impacts the brand experience.

#### 2.4. Word-of-mouth (WOM), effect on brand experience

Word-of-mouth (WOM) is a powerful form of communication that involves the sharing of information about a product or service through daily dialogues (Hayes, 2022). It is essentially free advertising triggered by customer experiences, often exceeding their expectations. WOM can be encouraged through various activities set up by companies, or by creating opportunities for consumer-to-consumer and consumer-to-marketer communications. It includes various marketing techniques such as buzz, blogs, and social media marketing (Hayes, 2022). In the tourism industry, WOM has been recognized as a significant factor influencing consumer behavior (Jalilvand and Samiei, 2012; Lai et al., 2018). Tourists rarely make decisions in isolation; they select sources of information that they perceive as useful, trustworthy, insightful, and easily accessible (Harris, 2021). In the aviation sector, service quality leads to positive WOM, providing organizations with a valuable form of indirect advertising. Positive WOM enhances servicescape satisfaction, and WOM credibility positively moderates this relationship (Siguaw et al., 2020). Servicescape satisfaction directly affects brand image and brand love, as well as indirectly through the mediating mechanism of servicescape engagement. In turn, brand image and brand love yield a greater likelihood of consumer loyalty intentions including recommendation and monetary donations (Siguaw et al., 2020).

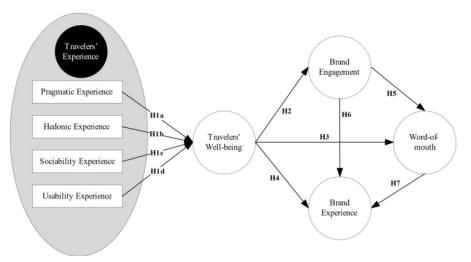
The association between word of mouth and brand experience has been also assessed in multiple prior studies. For instance, Klein et al. (2016) reported that different factors related to experiences such as item uniqueness, value and atmosphere were attributed with positive word of mouth about the brand among individuals. Klein et al. (2016) further explains that word of mouth is a critical factor when it comes to brand image and experience considering the role it plays in strengthening the image of the brand and what message they want to deliver. Another study by Mukerjee (2018) reported an association between brand experience with the word-of-mouth recommendations among the participants, however, with customer loyalty factor acting as a moderator in this association. As a measure of customer satisfaction and word-of-mouth, brand experience was assessed on sensory, emotional, behavioral, and intellectual dimensions. Three dimensions (sensory, emotion-al, and behavioral) were significantly associated with both, customer satisfaction and word of mouth, according to a study by Almohaimmeed (2020). In addition, boosting a brand's reputation and attracting new customers can be significantly affected by word-of-mouth. In their study that analyzed the effect of experiences on travelers, Park and Park (2015) found that travelers experiences can impact an emotional response positively, which in turn, causing them to have positive word of mouth, as well as indulge in impulsive buying. In similar study findings, individuals who were more satisfied with their experience were more likely to indulge in a positive word of mouth, according to a study by Ghorban and Tahernejad (2012). Ghorban and Tahernejad (2012) also argued that though it's important to attract new customers, however, retaining the available attracted customers is more profitable and must be the focus by policy makers by enhancing the individual's experiences. Therefore, we hypothesized that:

H7: Word-of-mouth of airline travelers significantly impacts brand experience.

The studies cited in section 2.1 provide compelling evidence for the significant influence of travelers' experiences on their perceptions of well-being. Researchers have demonstrated how functional and emotional factors collectively shape travelers' overall well-being by assessing experiences across multiple domains—pragmatic, hedonic, sociability, and usability. This holistic approach to understanding experience is crucial, as it recognizes that well-being is determined by the full range of interactions with services and other people, not just discrete aspects in isolation. Considering experiences through diverse lenses also affords insights into leveraging different experience dimensions to maximize benefits to traveler well-being. The strong and consistent relationships identified between various experience factors and well-being outcomes across different cultural contexts lend robust support to our hypotheses regarding the decisive impact of each experience domain on airline passenger well-being. Moreover, the citation of scholarly literature enhances the credibility and rigor of this study's conceptual framework. Referencing established works lends validity to our proposed relationships between constructs by demonstrating how they build upon vetted prior findings. It orients the reader to the body of knowledge in this area and identifies the theoretical and empirical gaps our research is positioned to address. The commentary contextualizing each citation also synthesizes insights across studies to provide a cohesive picture of the current state of understanding. This analytical approach strengthens the justification for our hypothesized model and establishes the foundation for our empirical analysis to advance academic discourse further.

The wealth of studies in section 2.2 indicates strong and positive associations between travelers' well-being and important downstream outcomes like brand engagement, word-of-mouth behavior, and experience. By exploring these linkages through different cultural and contextual lenses, researchers have demonstrated how prioritizing well-being can stimulate greater loyalty, advocacy, and satisfaction—all critical drivers of business success. This positions well-being as an ethical concern and a strategic imperative. By hypothesizing these relationships specifically about airline brands, this research aims to deepen understanding their implications for the aviation sector. Given air travel's huge socioeconomic role, optimizing passengers' well-being could significantly grow stakeholder value. Additionally, the citation of studies accounting for moderating influences like brand attachment and reputation strengthens our hypothesis development. Realistically, relationships in business are complex, with multiple interplays. Considering such contingencies lends nuance to our theoretical model. It orients our empirical approach to examining interdependencies rather than simplistic one-directional effects. This enhances our findings' realistic and managerial relevance by equipping decision-makers with a more sophisticated understanding of optimizing traveler wellness for maximum downstream benefits.

Collectively, the study hypotheses can be formulated based on the above review. The general framework of the hypotheses is depicted in **Figure 1**.



**Figure 1.** A flow chart of the study hypotheses.

## 3. Methodology

### 3.1. Study sample and data collection

This study utilized a quantitative research approach to collect primary data and comprehensively evaluate passenger experience with the variety of duty-free shops located within King Fahd International Airport as it is one of the crucial airports in Saudi Arabia (Sohail and Al-Gahtani, 2005). The travel agency responsible for reserving and booking most flight tickets at the airport, including international and domestic destinations, was purposively selected to assist with data collection efforts. This agency was chosen due to its central location processing the highest passenger volume through the airport departure hall on a daily basis. The research team and travel agency agreed to use purposive sample analysis. A purposive sampling technique was deemed most suitable given the research aimed to analyze perceptions among passengers who had recently visited and directly interacted with the retail offerings within duty-free shops (Campbell et al., 2020). Purposive sampling in this context was crucial to fulfilling the core goal of comprehensively understanding actual customer experiences among those who transacted at the airport shops (Etikan et al., 2016). Generalizable conclusions regarding perception factors across relevant experience dimensions could then be drawn from the targeted sample (Campbell et al., 2020).

To be included in the sample, passengers had to meet four critical criteria: they must have been 18 years of age or older; able to read and respond to an English survey instrument; have personally visited one of the airport duty-free shops within the past six months; and made at least one purchase during their visit. Requiring recent personal experience with and engagement in the shops ensured the responses provided meaningful insight into actual customer experiences rather than hypothetical perceptions. Collecting data only from those with recent and personal engagement ensured responses provided meaningful insight beyond hypothetical opinions. The survey instrument, distributed through an online link to the travel agency's customer email list over two weeks in September 2023, garnered responses from a total sample of 412 participants, providing a robust dataset for subsequent analysis. The questionnaire covered demographic characteristics, travel patterns, and a range of

experiences within duty-free shops, exploring pragmatic, sociability, hedonic, and usability dimensions, along with aspects related to well-being, brand engagement, brand experience, and word-of-mouth advocacy. Demographic characteristics were collected to ensure a diverse representation of travelers, including information on gender, age group, travel companions, and the frequency of visits to King Fahd Airport. In evaluating travelers' experiences, the survey covered four essential constructs: 1) pragmatic experience: participants assessed the worth, usefulness, value, and relevance of their shopping experiences at the duty-free stores; 2) sociability experience: the friendliness, personalization, politeness, and overall enjoyment of interactions within the shops were evaluated; 3) hedonic experience: participants provided insights into the pleasing, exciting, deeply engrossing, and enjoyable qualities of browsing the duty-free shops; 4) usability experience: ease, lack of stress, absence of confusion, and overall consistency in use were measured to understand participants' perceptions of the usability of the duty-free shops. Moreover, the study delved into passengers' well-being constructs, examining the role of duty-free shopping in enhancing overall well-being and quality of life. Additionally, participants' engagement with the duty-free brand was explored, encompassing activities such as posting pictures, sharing or commenting on related posts, and their willingness to encourage others to use the duty-free shops. The constructs related to brand experience and advocacy were designed to gauge participants' perceptions of the sensory appeal, thought-stimulating qualities, and overall interesting aspects of the duty-free brand. Furthermore, participants were asked about their likelihood of recommending, encouraging others, and speaking positively about the duty-free shops to others. This strategic approach to data collection ensures a comprehensive exploration of the factors influencing passenger perceptions and behaviors within the airport's duty-free environment.

### 3.2. Construct measures

The pragmatic experience construct is measured using four items that capture the practical and utilitarian value derived from interactions with the duty-free shop. The items are measured on a seven-point Likert scale ranging from strongly disagree to strongly agree. The item "worthwhile" assesses whether respondents found their experience at the duty-free shop to be a worthwhile use of their time and effort. The item "useful" gauges the perceived usefulness of the experience in meeting practical needs. The item "valuable" examines perceptions of the experience as providing good value and benefits. Finally, the item "relevant" considers the experience's relevance to respondents' travel needs. Together, these items provide a multidimensional assessment of pragmatic experience by evaluating its practical benefits across different attributes of worth, usefulness, value and relevance from the customer's utilitarian perspective. This comprehensive operationalization aligns with the conceptual definition of pragmatic experience as the practical and functional aspects of the travel experience. To comprehensively assess passengers' experiences within the airport duty-free shops, this study employed the above-mentioned set of carefully crafted constructs (section 3.1.). Passengers' experience with the airport duty-free shops were adapted from Je et al. (2022) for the pragmatic experience, Ross (2005) for the

sociability experience, Hosany and Gilbert (2010) for the hedonic experience and Martínez-Sala et al. (2020) for the usability experience. Additionally, well-being was adapted from Abdul-Rahman et al. (2023), brand engagement from Abdel-Gayed et al. (2023) and word-of-mouth advocacy from Saleh (2022). Responses for all items were collected using 5-point Likert scales ranging from "strongly disagree" to "strongly agree". These validated multi-item scales were applied to capture participants' cognitive and affective evaluations across pragmatic, social, emotional and utilitarian dimensions of their real-world duty-free experiences. The instrument design adhered to best practices for quantitative survey research to yield quantitative data suitable for statistical analysis (Table 1). The measures were adapted from preexisting scales that have seen widespread empirical use in studies of consumption experiences. Their inclusion allows for drawing meaningful comparisons to prior work establishing relationships between pragmatic experience, well-being and other downstream outcomes. The individual items also demonstrate face validity in clearly representing the construct's pragmatic essence. Together they offer a rigorous, validated approach for quantifying pragmatic experience as an important independent variable in testing our hypotheses.

**Table 1.** The primary domains used in the current study.

Scale	Item code	Item
	Exp_Prg_1	Worthwhile
Pragmatic experience	Exp_Prg_2	Useful
	Exp_Prg_3	Valuable
	Exp_Prg_4	Relevant
	Exp_Soc_1	Friendly
Sociability	Exp_Soc_2	Personal
experience	Exp_Soc_3	Polite
	Exp_Soc_4	Enjoyable
	Exp_Hed_1	Pleasing
Hedonic	Exp_Hed_2	Exciting
experience	Exp_Hed_3	Deeply engrossing
	Exp_Hed_4	Enjoyable
	Exp_Use_1	Not tiring
Usability	Exp_Use_2	Not stressful
experience	Exp_Use_3	Not confusing
	Exp_Use_4	Consistent
	Well_1	This duty-free shop played an important role in my well-being
Well-being	Well_2	This duty-free shop met my overall well-being needs
wen comg	Well_3	This duty-free shop played an important role in enhancing my quality of life
	Br_eng_1	I have posted pictures/graphics related to duty free
Brand	Br_eng_2	I have shared/commented on duty free in the airport related posts
engagement	Br_eng_3	I will encourage friends and relatives to use duty free in airport in the future

Table 1. (Continued).

Scale	Item code	Item
	Br_eng_4	I will make constructive suggestions to the airport about how to improve experience in duty free
	Br_exp_1	I find the duty free interesting in a sensory way
Brand experience	Br_exp_2	I engage in a lot of thinking when I encounter the duty free in airport
emperionee	Br_exp_3	This duty-free brand stimulates my curiosity
	Wom_1	I said positive things about this duty-free shop to others
Word-of-mouth	Wom_2	I recommended this duty-free shop to others
	Wom_3	I encouraged others to visit this duty-free shop

#### 3.3. Statistical analysis

The data analysis was carried out using RStudio (R version 4.3.0). Categorical data were summarized in terms of both frequencies and percentages. To model the constructs under investigation in this study, the approach employed was bootstrapped partial least squares structural equation modeling. The assessment of internal consistency reliability was conducted by calculating Cronbach's alpha coefficients. To address the underlying assumptions of Cronbach's alpha, which presume equal indicator loadings, we also computed composite reliability (rhoC) values as a measure of composite reliability (Jöreskog, 1971). Additionally, consistent reliability of the partial least squares (rhoA) was employed as an extra conservative measure of internal consistency, following the recommendation of Dijkstra and Henseler (2015). Convergent validity was evaluated using the Average Variance Extracted (AVE), which gauges the extent to which each domain can converge to explain the variances observed in the indicators (Hair et al., 2021). Discriminant validity was assessed by comparing the square roots of the AVE with the correlations between different constructs and by employing the heterotrait-monotrait ratio (HTMT) of correlations, as outlined in reference (Henseler et al., 2015). The bootstrapped structural model was executed using a 1000-bootstrap method (Streukens and Leroi-Werelds, 2016). The results were reported in terms of beta coefficients along with their corresponding 95% confidence intervals (95% CIs). Statistical significance was indicated by a p-value of 0.05.

#### 3.4. Ethics statement

This study was conducted according to the guidelines of the Declaration of Helsinki and was approved by the Deanship of Scientific Research Ethical Committee, King Faisal University.

#### 4. Findings

#### 4.1. Characteristics of the respondents

Data of 412 respondents were analyzed in the study. The majority of them were females (77.7%) and aged 18 to 24 years (67.5%). More than a half of them have travelled three time or more via King Fahd Airport (57.3%), and 40.5% of them travelled via the airport in 2022 (**Table 2**). Pragmatic experience, sociability

experience, hedonic experience and usability experience.

**Table 2.** Demographic characteristics of the participants.

Characteristic	Category	N (%)
Conto	Male	92 (22.3%)
Gender	Female	320 (77.7%)
	18 to 24	278 (67.5%)
	25 to 34	40 (9.7%)
	35 to 44	55 (13.3%)
Age	45 or more	39 (9.5%)
	Alone	56 (13.6%)
	With my family	248 (60.2%)
	With a friend	125 (30.3%)
	Just once	96 (23.3%)
How many times have you travelled via King Fahd Airport?	Twice	80 (19.4%)
via rang rand ranpozvi	Three times or more	236 (57.3%)
	2017	32 (7.8%)
	2018	11 (2.7%)
	2019	21 (5.1%)
When was your last time of traveling via King Fahd airport?	2020	19 (4.6%)
via iting i and airport.	2021	61 (14.8%)
	2022	167 (40.5%)
	2023	101 (24.5%)

#### 4.2. Results of the convergent validity and construct reliability

In the context of the bootstrapped model, it was observed that three items exhibited statistically insignificant loadings with regard to their corresponding constructs. These items were distributed as follows: one item in the pragmatic experience domain (Exp\_Prg\_1), one item in the sociability experience domain (Exp\_Soc\_4) and one-item in the word-of-mouth domain (Wom\_1). Subsequently, the final bootstrapped model demonstrated commendable levels of reliability, as evidenced by the results presented in **Table 3**. The mean bootstrap factor loadings for all items were statistically significant, exceeding a threshold of 0.50. Furthermore, the rhoC and rhoA values surpassed the acceptable threshold of 0.70 (Dijkstra and Henseler, 2015; Jöreskog, 1971). It is noteworthy that the Cronbach's alpha coefficients exhibited variability, ranging from 0.855 to 0.925. Particularly noteworthy is the range of AVE values, which spanned from 0.784 to 0.927. This range signifies that the respective domains accounted for no less than 78.4% of the variance observed in the indicators comprising each respective domain, as established by reference (Hair et al., 2021).

**Table 3.** Convergent validity and construct reliability.

Domains/items	BFL	VIF	Alpha	rhoC	rhoA	AVE
Pragmatic experience			0.918	0.948	0.92	0.859
Exp_Prg_2	0.917	3.115				
Exp_Prg_3	0.926	3.207				
Exp_Prg_4	0.937	3.675				
Sociability experience			0.885	0.929	0.89	0.814
Exp_Soc_1	0.926	3.195				
Exp_Soc_2	0.914	3.110				
Exp_Soc_3	0.865	2.031				
Hedonic experience			0.916	0.941	0.918	0.799
Exp_Hed_1	0.888	3.096				
Exp_Hed_2	0.930	4.110				
Exp_Hed_3	0.894	3.092				
Exp_Hed_4	0.861	2.342				
Usability experience			0.908	0.936	0.909	0.784
Exp_Use_1	0.906	3.158				
Exp_Use_2	0.885	2.736				
Exp_Use_3	0.893	2.917				
Exp_Use_4	0.854	2.275				
Well-being			0.925	0.952	0.925	0.869
Well_1	0.905	2.676				
Well_2	0.950	4.089				
Well_3	0.941	4.645				
Brand engagement			0.924	0.946	0.925	0.816
Br_eng_1	0.910	3.797				
Br_eng_2	0.899	3.661				
Br_eng_3	0.872	3.134				
Br_eng_4	0.929	4.425				
Brand experience			0.917	0.948	0.918	0.858
Br_exp_1	0.921	3.297				
Br_exp_2	0.950	4.498				
Br_exp_3	0.906	2.939				
Word-of-mouth			0.922	0.962	0.939	0.927
Wom_2	0.949	3.735				
Wom_3	0.957	3.735				

AVE: average variance extracted; VIF: variance inflation factor; BFL: bootstrapped factor loading; Alpha: Cronbach's alpha.

## 4.3. Outcomes of the discriminant validity

Regarding the evaluation of discriminant validity, an analysis involved comparing the square roots of the Average Variance Extracted (AVE) with the shared variance observed between different constructs, which is indicated by the inter-domain correlations. As detailed in **Table 4**, it was observed that the square roots of the AVE

were consistently greater than the correlations among various domains. Furthermore, the results presented in **Table 5**, which include bootstrapped heterotrait-monotrait ratio (HTMT) values and their respective 95% confidence intervals (CIs), did not exceed the established threshold of 1. This outcome serves to reaffirm the confirmation of discriminant validity (Henseler et al., 2015).

**Table 4.** Results of the discriminant validity.

Parameter	Pragmatic experience	Sociability experience	Hedonic experience	Usability experience	Well-being	Brand engagement	WOM	Brand experience
Pragmatic experience	0.927							
Sociability experience	0.872	0.902						
Hedonic experience	0.714	0.715	0.894					
Usability experience	0.71	0.745	0.865	0.886				
Well-being	0.711	0.726	0.818	0.851	0.932			
Brand engagement	0.709	0.741	0.794	0.841	0.914	0.903		
WOM	0.007	-0.002	0.063	0.059	0.011	-0.02	0.963	
Brand experience	0.714	0.766	0.801	0.835	0.884	0.879	-0.012	0.926

The square roots of AVE are on the diagonal and inter-domain correlations are on the lower triangle.

**Table 5.** Results of the bootstrapped HTMT.

Relationship	T Stat.	B-HTMT values (95% CI)
Pragmatic experience → Sociability experience	67.60	0.965 (0.935 to 0.991)
Pragmatic experience → Hedonic experience	28.08	0.776 (0.717 to 0.830)
Pragmatic experience → Usability experience	25.51	0.775 (0.712 to 0.831)
Pragmatic experience → Well-being	22.55	0.768 (0.700 to 0.833)
Pragmatic experience → Brand engagement	22.79	0.766 (0.698 to 0.830)
Pragmatic experience $\rightarrow$ WOM	1.38	0.059 (0.028 to 0.124)
Pragmatic experience → Brand experience	24.70	0.776 (0.710 to 0.833)
Sociability experience → Hedonic experience	24.69	0.793 (0.725 to 0.853)
Sociability experience → Usability experience	34.61	0.830 (0.781 to 0.876)
Sociability experience → Well-being	26.42	0.799 (0.734 to 0.857)
Sociability experience → Brand engagement	27.97	0.816 (0.756 to 0.871)
Sociability experience → WOM	1.09	0.059 (0.022 to 0.126)
Sociability experience → Brand experience	31.57	0.849 (0.795 to 0.898)
Hedonic experience → Usability experience	58.64	0.944 (0.909 to 0.973)
Hedonic experience → Well-being	44.04	0.885 (0.843 to 0.923)
Hedonic experience → Brand engagement	44.49	0.862 (0.824 to 0.896)
Hedonic experience → WOM	1.88	0.081 (0.031 to 0.163)
Hedonic experience → Brand experience	47.15	0.872 (0.835 to 0.907)
Usability experience → Well-being	74.04	0.929 (0.903 to 0.953)
Usability experience → Brand engagement	64.42	0.919 (0.891 to 0.946)
Usability experience → WOM	1.80	0.079 (0.026 to 0.165)
Usability experience → Brand experience	59.92	0.914 (0.881 to 0.941)
Well-being → Brand engagement	103.93	0.988 (0.978 to 0.998)

**Table 5.** (Continued).

Relationship	T Stat.	B-HTMT values (95% CI)
Well-being $\rightarrow$ WOM	0.70	0.050 (0.017 to 0.116)
Well-being → Brand experience	67.19	0.959 (0.931 to 0.985)
Brand engagement $\rightarrow$ WOM	1.31	0.060 (0.027 to 0.130)
Brand engagement → Brand experience	80.36	0.955 (0.931 to 0.977)
WOM → Brand experience	0.68	0.051 (0.015 to 0.123)

#### 4.4. Structural model

The outcomes of the structural model revealed that travelers' well-being was significantly predicted by the pragmatic experience ( $\beta$  = 0.105, 95% CI = 0.006 to 0.214, p = 0.027), hedonic experience ( $\beta$  = 0.247, 95% CI = 0.149 to 0.381, p < 0.0001) and usability experience ( $\beta$  = 0.492, 95% CI = 0.350 to 0.631, p < 0.0001) but not the sociability experience ( $\beta$  = 0.083, 95% CI = -0.030 to 0.196, p = 0.074). Well-being was in turn independently associated with brand engagement ( $\beta$  = 0.914, 95% CI = 0.892 to 0.931, p < 0.0001) and brand experience ( $\beta$  = 0.490, 95% CI = 0.337 to 0.639, p < 0.0001); however, well-being did not significantly influence the word-of-mouth ( $\beta$  = 0.174, 95% CI = -0.057 to 0.405, p = 0.065). Brand engagement was a significant antecedent predictor of brand experience ( $\beta$  = 0.431, 95% CI = 0.284 to 0.584, p < 0.0001), but it did not predict the word-of-mouth ( $\beta$  = -0.179, 95% CI = -0.406 to 0.072, p = 0.938). Finally, brand experience was not influenced by the word of mouth ( $\beta$  = -0.008, 95% CI = -0.049 to 0.033, p = 0.655, **Table 6**).

**Table 6.** Results of the structural models.

Path	T value	Beta (95% CI)	<i>p</i> -value
Pragmatic experience → Well-being	1.931	0.105 (0.006 to 0.214)	0.027
Sociability experience $\rightarrow$ Well-being	1.453	0.083 (-0.030 to 0.196)	0.074
Hedonic experience $\rightarrow$ Well-being	4.454	0.257 (0.149 to 0.381)	< 0.0001
Usability experience → Well-being	6.967	0.492 (0.350 to 0.631)	< 0.0001
Well-being → Brand engagement	92.351	0.914 (0.892 to 0.931)	< 0.0001
Well-being $\rightarrow$ WOM	1.52	0.174 (-0.057 to 0.405)	0.065
Well-being → Brand experience	6.18	0.490 (0.337 to 0.639)	< 0.0001
Brand engagement $\rightarrow$ WOM	-1.54	-0.179 (-0.406 to 0.072)	0.938
Brand engagement → Brand experience	5.551	0.431 (0.284 to 0.584)	< 0.0001
WOM → Brand experience	-0.399	-0.008 (-0.049 to 0.033)	0.655

CI: confidence interval.

#### 5. Discussion

The present study meaningfully adds to the nascent yet growing body of literature examining how diverse factors impact travelers' experiences in duty-free shops, with downstream implications for tourism sector competitiveness and national economic welfare (Abdel-Gayed et al., 2023; Chen and Petrick, 2013). Specifically, the findings suggest passengers' pragmatic, hedonic and usability experiences demonstrate statistically significant associations with perceived well-being, as evidenced through

quantitative analyses (see **Table 6**), largely aligning with prior work in the Chinese context (Kim et al., 2019). The current study adds to the current literature understanding of the factors that can enhance the travelers experience at duty free shops, and thus enhance the country's tourism sector and overall economy. The results show that pragmatic experience, hedonic experience, and usability experience factors to be associated with travelers' wellbeing (**Table 6**). This finding was similar to the findings reported in a study in China (Kim et al., 2019). In another study, Abdel-Gayed et al. (2023) explains that the efficiency of duty-free shops eco designs can impact the traveler's well-being by reducing their stress, emotional weariness, and maintain the loyalty of its customers, which are all factors attributed to successful individual experience. In another study, Fritz and Sonnentag (2006) also reported an association between perceived wellness and positive vacation experiences, which further support the finding in our current study. Nevertheless, H. Kim et al. (2019) reported sociability experience to be associated with wellbeing, a finding that contradicts the finding in our study. In another study by González et al. (2021), individual subjective wellbeing was positively correlated with multiple social experiences and aspects, a finding that also contradicts the finding from our current study. The variation in types of experiences assessed and their scale of measurements, as well as the individual characteristics and other possible moderators can all explain the variation in the current study results with prior papers. For example, Schmitt et al. (2009) utilized sensory, affective, intellectual, and behavioral dimensions to measure experience, which are different than the experience measurements adopted in the current study. Nevertheless, Chen and Petrick (2013) argue in their paper that the literature is limited when it comes to the association between the positive effect of travel experiences on physical and mental health, and more studies are re-quired to properly explain this established association. Notably, the effect of pragmatic experience on the well-being of travelers, particularly airline travelers, can be understood through various factors such as personality traits, in-flight experiences, and the physical environment of airports. Travelers' personality factors can influence their psychological well-being and travel experience as stated in the study of Kim et al. (2019), and flight experiences are mediated by the physical environment of airports as indicated in the study of Abdel-Gayed et al. (2023). Selfie tourism is another emerging trend among travelers, and it has been found to have a positive relationship with both memorable tourism experiences and hedonic well-being. Memorable tourism experiences and hedonic well-being also have a significant relationship with place attachment (Trinanda et al., 2021).

In the realm of the second variable under scrutiny, the study's findings reveal an independent association between the perception of well-being and two crucial aspects: brand engagement and brand experience. This aligns with the consistent patterns observed in a body of existing literature, as highlighted by Hwang et al. (2023), Joshi and Garg (2020), and Thubert et al. (2017). Delving into the multidimensional nature of brand engagement and brand experience, Abdel-Gayed et al. (2023) posit that these concepts not only influence individual perceptions of well-being but are also reciprocally influenced by them. Thubert et al.'s (2017) investigation into travelers' well-being and brand experience further strengthens this connection, emphasizing the direct impact of the duty-free zone's ambiance and the presented brand image on

customer purchasing behavior. Building on these insights, Martín et al. (2019) contribute to the understanding by elucidating that shoppers exhibit greater flexibility in their choices when presented with a variety of international brands, emphasizing the significance of the shop's aesthetics and the ease of locating desired items. However, Attiq et al. (2022) introduced a layer of complexity by suggesting that the association between brand engagement and perceived well-being may be mediated by factors such as brand love, among others. This nuanced perspective, as argued by Attiq et al. (2022), underscores the need to consider additional elements in the relationship between brand engagement and perceived well-being. Importantly, their contention emphasizes that brands play a pivotal role in promoting customer wellness by addressing emotional and psychological needs throughout the entire process of brand-consumer interaction. This holistic understanding highlights the multifaceted nature of the connection between well-being and brand-related variables, urging brands to adopt strategies that encompass the entire spectrum of customer well-being for a more impactful and sustainable consumer-brand relationship.

Moving to other factors, Simpson and Siguaw (2008) argued that word of mouth is often linked with satisfaction, where positive experiences with services generally promote positive word of mouth. In another study, customers that were happy and loyal tend to lean towards the advertising strategy that is utilized by a brand through their wording, ac-cording to Ghorban and Tahernejad (2012). Similarly, Attiq et al. (2022) explained thar customers' well-being impacts not only loyalty to brands, but also their product choices and word-of-mouth marketing. Unlike these studies (e.g., Attiq et al., 2022; Ghorban and Tahernejad, 2012; Nyilasy, 2007), the findings in this paper didn't support an association between positive well-being perception with a positive word of mouth (**Table 6**). According to Nyilasy (2007), word of mouth results in three important key responses in other individuals, which includes affective response relate to heightened emotional state, cognitive response related to greater brand awareness, and behavioral responses related to product trial. In addition, Wangenheim and Bayón (2004) explained that word of mouth influence can vary depending on the perceived risk and perceived communicator characteristics, that can't always grant the same results among receivers. To remain relevant in today's fast-moving lifestyle and rapidly evolving cultures, Gobe (2010) recommends emotional branding and engagement that meets the expectations and demands of the new generation.

In addition, brand engagement was a significant antecedent predictor of brand experience but not word-of-mouth in the current study (**Table 6**). This finding was consistent with the finding by Khan et al. (2016), who reported a positive influence caused by brand engagement on brand experience. In contrast, Merrilees (2016) argues that for each brand kind, distinct aspects of brand experience and engagement are possible, which need to be systematically assessed before establishing an association. When it comes to the impact of brand engagement on word of mouth, engaging individuals whether through social media or any other form, can increase the interaction of customers with the brand, thus increases their positive word of mouth (Acharya, 2020; Hudson et al., 2015). Though an association was found between brand engagement and word of mouth in prior studies (Acharya, 2020; Hudson et al., 2015), the current study didn't prove any correlations between the two factors (**Table 6**).

While brand preference could be a possible reason as Hwang et al. (2023) explained, further studies are recommend including qualitative designs to understand the reasons behind the variations in findings among Saudis.

Regarding the implications of the study findings, our study offers significant managerial and theoretical implications for the enhancement of airport services and the broader field of customer experience research. From a managerial perspective, the findings underscore the importance of prioritizing usability experiences within airport environments. Airport authorities can leverage this insight to optimize physical layouts, signage, and overall infrastructure, ensuring that travelers encounter seamless and user-friendly interfaces. Furthermore, recognizing the substantial impact of well-being on brand engagement and brand experience highlights the potential for airports to invest in initiatives that contribute positively to travelers' overall sense of well-being, thereby fostering stronger connections with airport brands. Theoretical implications arise from our novel approach to examining travelers' experiences through multiple dimensions. The identified relationships between pragmatic, sociability, hedonic, and usability experiences contribute to a nuanced understanding of the interplay between these factors. This study enriches existing theoretical frameworks by demonstrating the differential impact of each experiential dimension on travelers' well-being and subsequent brand-related outcomes. Scholars in the field can build upon these findings to refine existing models or develop new ones that capture the complexities of customer experiences in diverse contexts. Our study thus serves as a foundation for future research seeking to explore and extend the theoretical underpinnings of customer experience in airport settings.

The current study is limited in terms of the limited research papers available to explore the literature and compare the findings with our current results. Ghazi and Ammar (2018) argue that there is scarcity of research papers that assess the experiences of travelers with duty free shops. This argues the need for further research papers that utilize multiple de-signs to have better understanding for the factors that contribute to travelers' satisfaction and enhance the duty-free shopping experience. Another limitation is that the current study utilizes quantitative approaches, including the use of questionnaire as a data collection tool which increases the chances of response and selection bias. Therefore, it's important to conduct further quantitative and qualitative designs to further understand this association.

The adoption of a multimodal perspective in the current study allowed us to delve into the intricate nuances of travelers' experiences at King Fahd Airport. By simultaneously examining pragmatic, sociability, hedonic, and usability aspects, our study provides a comprehensive view of the multifaceted nature of airport experiences. The interplay between these modalities reveals intriguing patterns, such as the significant impact of usability experiences on travelers' well-being and the nuanced relationship between sociability and word-of-mouth advocacy. This multimodal lens not only deepens our understanding of the factors influencing travelers but also opens avenues for practical interventions, such as tailoring airport services to enhance specific experiential dimensions.

#### 6. Conclusion

In conclusion, the pursuit of superior brand experiences has emerged as a pivotal goal in contemporary luxury retail, driven by consumers' escalating demand for distinctive and memorable interactions. The quest for a travel experience that not only caters to practical needs but also culturally and personally enriches travelers, contributing to their overall well-being, necessitates meticulous planning, exceptional service delivery, and opportunities for cultural enrichment. The current study has contributed valuable insights by revealing positive associations between various dimensions of travelers' experiences and their well-being. The intricate connections uncovered, particularly the strong links between well-being and brand engagement, as well as brand experience, underscore the imperative for duty-free shops and policymakers to prioritize initiatives that enhance traveler experiences and satisfaction with brands. It is evident that maintaining a positive perception of well-being among travelers is pivotal in fostering enduring connections between consumers and brands. However, the study did not find substantial evidence supporting a direct effect of well-being on word-of-mouth, signaling an intriguing area for further exploration.

As the demand for memorable experiences continues to rise among consumers, duty-free shops and policymakers are urged to collaboratively work towards elevating traveler experiences, ensuring satisfaction with brands, and concurrently nurturing the well-being perception of travelers. Future studies in this domain should consider employing diverse research designs to gain a more nuanced understanding of the intricate associations between travelers' experiences and well-being. Exploring how different brands within duty-free shops can uniquely contribute to and enhance travelers' experiences remains an avenue worth delving into for a comprehensive comprehension of the evolving dynamics in the airport retail landscape. Policymakers should consider initiatives that not only enhance engagement but also contribute to the overall satisfaction and holistic experience of travelers.

In light of these findings, future research endeavors should aim to delve deeper into the multifaceted nature of these associations, exploring the role of specific interventions and strategies in shaping travelers' perceptions. By doing so, we can unravel actionable insights that can inform the development of policies and practices geared towards creating unparalleled travel experiences. In essence, the ongoing pursuit of understanding and optimizing travelers' experiences remains pivotal for both industry practitioners and researchers, fostering a symbiotic relationship that continually enhances the airport retail landscape.

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#### References

- Abdel-Gayed, A. H., Hassan, T. H., Abdou, A. H., et al. (2023). Travelers' Subjective Well-Being as an Environmental Practice: Do Airport Buildings' Eco-Design, Brand Engagement, and Brand Experience Matter? International Journal of Environmental Research and Public Health, 20(2), 938. https://doi.org/10.3390/ijerph20020938
- Abdul-Rahman, M. N., Hassan, T. H., Abdou, A. H., et al. (2023). Responding to tourists' intentions to revisit medical destinations in the post-COVID-19 era through the promotion of their clinical trust and well-being. Sustainability, 15(3), 2399. https://doi.org/10.3390/su15032399
- Acharya, A. (2020). The impact of brand familiarity, customer brand engagement and self-identification on word-of-mouth. South Asian Journal of Business Studies, 10(1), 29-48. https://doi.org/10.1108/sajbs-07-2019-0126
- Ahn, Y. j., Kim, I., & Hyun, S. S. (2015). Critical In-Flight and Ground-Service Factors Influencing Brand Prestige and Relationships Between Brand Prestige, Well-Being Perceptions, and Brand Loyalty: First-Class Passengers. Journal of Travel & Marketing, 32(sup1), S114-S138. https://doi.org/10.1080/10548408.2015.1008666
- Akram, S., & Kortam, W. (2020). The impact of customer experience in online brand communities on customer engagement and purchase intentions among Arab internet users: theoretical analysis, conceptual framework and research agenda. Business and Management Studies, 6(3), 26-54.
- Almohaimmeed, B. (2020). The impacts of brand experiences on customer satisfaction and electronic word of mouth. Business: Theory and Practice, 21(2), 695-703. https://doi.org/10.3846/btp.2020.11965
- Attiq, S., Abdul Hamid, A. B., Khokhar, M. N., et al. (2022). "Wow! It's Cool": How Brand Coolness Affects the Customer Psychological Well-Being Through Brand Love and Brand Engagement. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.923870
- Aviationknowldge. (2023). Usability. Available online: http://aviationknowledge.wikidot.com/aviation:usability (accessed on 11 June 2022).
- Azevedo, A. N. (2015). Measuring Online Customer Experience Quality.
- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand Experience: What Is It? How Is It Measured? Does It Affect Loyalty? Journal of Marketing, 73(3), 52-68. https://doi.org/10.1509/jmkg.73.3.052
- Campbell, S., Greenwood, M., Prior, S., et al. (2020). Purposive sampling: complex or simple? Research case examples. J Res Nurs, 25(8), 652-661. https://doi.org/10.1177/1744987120927206
- Chen, C. C., & Petrick, J. F. (2013). Health and Wellness Benefits of Travel Experiences. Journal of Travel Research, 52(6), 709-719. https://doi.org/10.1177/0047287513496477
- Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. MIS quarterly, 39(2), 297-316.
- Ekşioğlu, M., Kırış, E., Çakır, T., et al. (2013). A User Experience Study of Airline Websites. Lecture Notes in Computer Science, 173–182. https://doi.org/10.1007/978-3-642-39253-5\_19
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. American journal of theoretical and applied statistics, 5(1), 1-4. https://doi.org/10.11648/j.ajtas.20160501.11
- Farhat, K., Mokhtar, S. S. M., & Salleh, S. B. M. (2020). Role of brand experience and brand affect in creating brand engagement: a case of higher education institutions (HEIs). Journal of Marketing for Higher Education, 31(1), 107-135. https://doi.org/10.1080/08841241.2020.1759753
- Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: The role of workload and vacation experiences. Journal of Applied Psychology, 91(4), 936-945. https://doi.org/10.1037/0021-9010.91.4.936
- Ghazi, K., & Ammar, S. (2018). International tourists' attitudes and satisfaction toward airport F&B, and duty-free concessions.

- Journal of Tourism Research, 20(July), 41-109.
- Ghorban, S. Z., & Tahernejad, H. (2012). A Study on Effect of Brand Credibility on Word of Mouth: With Reference to Internet Service Providers in Malaysia. International Journal of Marketing Studies, 4(1). https://doi.org/10.5539/ijms.v4n1p26
- Gobe, M. (2010). Emotional branding: The new paradigm for connecting brands to people: Simon and Schuster.
- Gómez-Suárez, M., & Veloso, M. (2020). Brand experience and brand attachment as drivers of WOM in hospitality. Spanish Journal of Marketing-ESIC, 24(2), 231-246. https://doi.org/10.1108/sjme-12-2019-0106
- González, P. A., Dussaillant, F., & Calvo, E. (2021). Social and Individual Subjective Wellbeing and Capabilities in Chile. Frontiers in Psychology, 11. https://doi.org/10.3389/fpsyg.2020.628785
- Ha, H.-Y., & Perks, H. (2005). Effects of consumer perceptions of brand experience on the web: brand familiarity, satisfaction and brand trust. Journal of Consumer Behaviour, 4(6), 438-452. https://doi.org/10.1002/cb.29
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. In Classroom Companion: Business. Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7
- Harris, A. (2021). Unravelling the mystery of Word-of-Mouth. Available online: https://insights.ehotelier.com/insights/2021/07/08/unravelling-the-mystery-of-word-of-mouth/ (accessed on 11 June 2022).
- Hayes, A. (2022). Word-of-Mouth Marketing: Meaning and Uses in Business. In: Investopedia.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8
- Hosany, S., & Gilbert, D. (2010). Measuring tourists' emotional experiences toward hedonic holiday destinations. Journal of Travel Research, 49(4), 513-526. https://doi.org/10.1177/0047287509349267
- Hsu, T. H., & Tang, J. W. (2019). Applying fuzzy LinPreRa cognitive map to evaluate strategic alliance partnerships for outlying island duty-free shop. Asia Pacific Journal of Marketing and Logistics, 31(4), 730-758. https://doi.org/10.1108/apjml-09-2018-0339
- Hudson, S., Roth, M. S., Madden, T. J., et al. (2015). The effects of social media on emotions, brand relationship quality, and word of mouth: An empirical study of music festival attendees. Tourism Management, 47, 68-76. https://doi.org/10.1016/j.tourman.2014.09.001
- Hwang, J., Joo, K., & Kim, I. (2023). Identifying Chinese Tourists' Shopping Values and Their Consequences in the Context of a Duty-Free Shop: The Moderating Role of Country Image. Sustainability, 15(6), 5304. https://doi.org/10.3390/su15065304
- Jalilvand, M. R., & Samiei, N. (2012). The impact of electronic word of mouth on a tourism destination choice: Testing the theory of planned behavior (TPB). Internet research, 22(5), 591-612. https://doi.org/10.1108/10662241211271563
- Je, J. S., Khoo, C., & Yang, E. C. L. (2022). Gender issues in tourism organisations: insights from a two-phased pragmatic systematic literature review. Journal of Sustainable Tourism, 30(7), 1658-1681. https://doi.org/10.1080/09669582.2020.1831000
- Jöreskog, K. G. (1971). Simultaneous factor analysis in several populations. Psychometrika, 36(4), 409-426. https://doi.org/10.1007/bf02291366
- Joshi, R., & Garg, P. (2020). Role of brand experience in shaping brand love. International Journal of Consumer Studies, 45(2), 259-272. Portico. https://doi.org/10.1111/ijcs.12618
- Kale, U., Herrera, M., & Nagy, A. (2021). Examining pragmatic failure and other language-related risks in global aviation. Aircraft Engineering and Aerospace Technology, 93(8), 1313-1322. https://doi.org/10.1108/aeat-03-2021-0081
- Khan, I., Rahman, Z., & Fatma, M. (2016). The role of customer brand engagement and brand experience in online banking. International Journal of Bank Marketing, 34(7), 1025-1041. https://doi.org/10.1108/ijbm-07-2015-0110
- Kim, H.-C., Chua, B.-L., Lee, S., et al. (2015). Understanding Airline Travelers' Perceptions of Well-Being: The Role of Cognition, Emotion, and Sensory Experiences in Airline Lounges. Journal of Travel & Durism Marketing, 33(9), 1213-1234. https://doi.org/10.1080/10548408.2015.1094003
- Kim, H., Kim, J. J., & Asif, M. (2019). The Antecedents and Consequences of Travelers' Well-Being Perceptions: Focusing on Chinese Tourist Shopping at a Duty Free. International Journal of Environmental Research and Public Health, 16(24), 5081. https://doi.org/10.3390/ijerph16245081
- Kim, J. J., Nam, M., & Kim, I. (2018). The effect of trust on value on travel websites: enhancing well-being and word-of-mouth among the elderly. Journal of Travel & Darray Marketing, 36(1), 76-89.

- https://doi.org/10.1080/10548408.2018.1494086
- Klein, J. F., Falk, T., Esch, F.-R., et al. (2016). Linking pop-up brand stores to brand experience and word of mouth: The case of luxury retail. Journal of Business Research, 69(12), 5761-5767. https://doi.org/10.1016/j.jbusres.2016.04.172
- Lai, I. K., Hitchcock, M., Lu, D., et al. (2018). The Influence of Word of Mouth on Tourism Destination Choice: Tourist–Resident Relationship and Safety Perception among Mainland Chinese Tourists Visiting Macau. Sustainability, 10(7). https://doi.org/10.3390/su10072114
- Martín, J. C., Martín-Domingo, L., Lohmann, G., et al. (2019). The role of travel patterns in airport duty-free shopping satisfaction: A case study from an Australian regional airport. Journal of Air Transport Management, 80, 101691. https://doi.org/10.1016/j.jairtraman.2019.101691
- Martínez-Sala, A.-M., Monserrat-Gauchi, J., & Alemany-Martinez, D. (2020). User Usable Experience: A three-dimensional approach on usability in tourism websites and a model for its evaluation. Tourism Management Perspectives, 33, 100579. https://doi.org/10.1016/j.tmp.2019.100579
- Merrilees, B. (2016). Interactive brand experience pathways to customer-brand engagement and value co-creation. Journal of Product & Droduct & Management, 25(5), 402-408. https://doi.org/10.1108/jpbm-04-2016-1151
- Miao, L., Lehto, X., & Wei, W. (2011). The hedonic experience of travel-related consumption. Paper presented at the International CHRIE Conference-Refereed Track 7.
- Mukerjee, K. (2018). The impact of brand experience, service quality and perceived value on word of mouth of retail bank customers: investigating the mediating effect of loyalty. Journal of Financial Services Marketing, 23(1), 12-24. https://doi.org/10.1057/s41264-018-0039-8
- Nyilasy, G. (2007). Word of mouth: what we really know-and what we don't. In Connected marketing. Routledge. pp. 161-184.
- Park, J. H., & Park, J. W. (2015). The effects of experience in the A380 duty free showcase on customer behaviors. Journal of Air Transport Management, 47, 135-141. https://doi.org/10.1016/j.jairtraman.2015.05.009
- Rasool, A., Shah, F. A., & Tanveer, M. (2021). Relational Dynamics between Customer Engagement, Brand Experience, and Customer Loyalty: An Empirical Investigation. Journal of Internet Commerce, 20(3), 273-292. https://doi.org/10.1080/15332861.2021.1889818
- Ross, G. F. (2005). Senior tourists sociability and travel preparation. Tourism Review, 60(2), 6-15. https://doi.org/10.1108/eb058451
- Saleh, M. I. (2022). Attribution Theory Revisited: Probing the Link Among Locus of Causality Theory, Destination Social Responsibility, Tourism Experience Types, and Tourist Behavior. Journal of Travel Research, 62(6), 1309-1327. https://doi.org/10.1177/00472875221119968
- Sandeep, K., & Vinod, K. (2014). Perception of socio-culture impacts of tourism: A sociological review. International Research Journal of Social Sciences, 3(2), 40-43.
- Siguaw, J. A., Mai, E., & Sheng, X. (2020). Word-of-mouth, servicescapes and the impact on brand effects. SN Business & Economics, 1(1), 15. https://doi.org/10.1007/s43546-020-00016-7
- Simpson, P. M., & Siguaw, J. A. (2008). Destination Word of Mouth. Journal of Travel Research, 47(2), 167-182. https://doi.org/10.1177/0047287508321198
- Sohail, M. S., & Al-Gahtani, A. S. (2005). Measuring service quality at King Fahd international airport. International Journal of Services and Standards, 1(4), 482-493. https://doi.org/10.1504/ijss.2005.007473
- Sohn, H. K., & Lee, T. J. (2016). Tourists' impulse buying behavior at duty-free shops: the moderating effects of time pressure and shopping involvement. Journal of Travel & Marketing, 34(3), 341-356. https://doi.org/10.1080/10548408.2016.1170650
- Streukens, S., & Leroi-Werelds, S. (2016). Bootstrapping and PLS-SEM: A step-by-step guide to get more out of your bootstrap results. European Management Journal, 34(6), 618-632. https://doi.org/10.1016/j.emj.2016.06.003
- Thubert, S., Francoulon, L., Weber, L., et al. (2017). Duty-free shops: Are luxury brands being democratized? Procedia Computer Science, 122, 533-540. https://doi.org/10.1016/j.procs.2017.11.403
- Trinanda, O., Sari, A. Y., Cerya, E., et al. (2021). Predicting place attachment through selfie tourism, memorable tourism experience and hedonic well-being. International Journal of Tourism Cities, 8(2), 412-423. https://doi.org/10.1108/ijtc-09-2020-0188
- Ursache, M. (2015). Tourism Significant Driver Shaping a Destinations Heritage. Procedia Social and Behavioral Sciences, 188, 130-137. https://doi.org/10.1016/j.sbspro.2015.03.348

- Wangenheim, F., & Bayón, T. (2004). The effect of word of mouth on services switching. European Journal of Marketing, 38(9/10), 1173-1185. https://doi.org/10.1108/03090560410548924
- Wang, T. L., Tran, P. T. K., & Tran, V. T. (2017). Destination perceived quality, tourist satisfaction and word-of-mouth. Tourism Review, 72(4), 392-410. https://doi.org/10.1108/tr-06-2017-0103
- Zhang, J., Li, F., & Xiang, K. (2023). Exploring the Mechanisms of Well-Being Occurrence Among Event Tourists: Mixed Empirical Evidence from Positive Psychology. Psychology Research and Behavior Management, 6, 2581-2597. https://doi.org/10.2147/prbm.s413012