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Role of alliance brand awareness on customer's behavioural response and satisfaction: case of 'sky team' global airline alliance

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Abstract: Air travel is predicted to grow 5% annually over the next two decades (Boeing, 2022). Thus, quality service as well as its effect on client satisfaction and commitment are crucial to airline life and must be reviewed regularly. The purpose of this research is to determine whether or not passengers are more satisfied when they are aware of a worldwide airline alliance and to identify the variables that have led to these outcomes. Moreover, the study explores the current relationship between brand awareness, expected service quality, and perceived risk. Passengers' awareness of the airline brand (Middle East Airlines – MEA) is contrasted with their familiarity with the alliance brand. This study used 500 structured surveys and 10 in-depth face-to-face interviews to validate hypotheses and answer the research question with random Beirut International Airport passengers. According to our findings, passenger satisfaction has a beneficial effect on the reputation of the global airline alliance brand.

Keywords: marketing; brand; airline; alliance; service; quality; satisfaction; loyalty; risk; willing to pay; willing to recommend.

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Biographical notes: Ali Mohammad Kassir has 16 years of experience in the aviation industry. He becomes a dedicated Senior Consultant at AviaPro Consulting Inc. and known for his results-driven approach and passion for innovation. Simultaneously, his academic journey spans 15 years, during which he has excelled as an Associate Professor in Business Administration and guiding and inspiring students in management and marketing, contributing to the development of future leaders.

1 Introduction

With air transportation poised to grow by 5% annually over the next two decades (Boeing, 2022), the competitive landscape in the airline industry has become increasingly intense due to deregulation and enhanced freedom of entry and exit (Forgas et al., 2010). As a result, the evaluation of service quality and its impact on customer satisfaction and loyalty has taken on paramount importance within the airline sector. Noteworthy research by scholars such as Lippitt et al. (2023), Krystallis and Chrysochou (2014), Wang (2010), Aydin and Yildirim (2012), Lee and Yoo (2000), Parasuraman et al. (1985), and Saravanan and Rao (2007) have underscored the intrinsic link between customer satisfaction and service quality.

Branding, as a pivotal intangible asset in business strategy, endows customers with the ability to accrue knowledge and information about offerings, thereby diminishing their perceived risk (Khasbulloh and Suparna, 2022; M'zungu et al., 2010). Additionally, Peña et al. (2013) advocate for the recognition of a brand's image as a fundamental component of service quality.

In this study, we scrutinise the impact of global airline alliance brand awareness on passenger satisfaction levels. A well-publicised airline significantly influences customers' perceptions of interrelations between various service attributes, thereby shaping their expectations regarding service quality and perceived risk. Notably, airline alliance branding remains an underexplored area in many countries (Weibelzahl and Weber, 2003). Janawade (2013) delves into passenger awareness of global alliances in the airline industry, an endeavour made challenging by the scarcity of airlines successfully establishing powerful brands. Marketing managers stand to gain invaluable insights from an analysis of passengers' perceptions of brand and brand image, and their correlation with airline services and satisfaction levels (Mandarić et al., 2023).

As articulated by Kotler (2009), brands form the bedrock of customer relationship strategies, aimed at securing competitive advantages, benefits, and connections with target customers. Given that customers gravitate towards offerings that deliver heightened value, a customer-centric brand emerges as indispensable for a company's survival (Doyle and Stern, 2006; Gupta and Ramachandran, 2021).

Moreover, branding emerges as a potent accelerator of a company's cash flows, as expounded by Moschner et al. (2019). They underscore the presence of numerous customer-based dimensions in the measurement of customer-based brand equity (CBBE), encompassing the cost of rebuying, opportunity cost, satisfaction levels, brand preferences, and anticipated quality levels of offerings.

Aaker posits that brand awareness comprises various dimensions and levels. Keller (2003) further delineates two dimensions of brand knowledge or awareness: brand recognition, denoting the extent to which a consumer can distinguish a specific brand from a set of brands, and brand recall, which measures a consumer's ability to retrieve and remember a brand. These levels encompass brand recognition, brand recall, top of mind, brand dominance, brand knowledge, and brand opinion. As customers progress from mere recognition to forming beliefs about a brand, their level of brand awareness progressively heightens.

Against this backdrop, hypotheses were formulated to elucidate the positive or negative relationships between the dimensions of each variable, including brand awareness, perceived risk, and service quality. This study endeavors to determine the influence of global alliance brand awareness on passenger behaviour, as manifested by

their inclination to recommend and purchase, intention to exhibit loyalty, and overall satisfaction with a specific brand or service provider.

To collect pertinent data, in-depth interviews were conducted at Beirut International Airport (BEY), with questions focusing on travellers' ability to recall brands in both the airline and non-airline sectors. The study juxtaposes travellers' awareness of individual airline brands with their awareness of global airline brands. The questionnaire's analytical goal was to gauge the impact of brand awareness on consumer behaviour and intentions, with perceived risk and quality serving as mediating variables. The second data collection method employed a quantitative exploratory approach, chosen to address the central research question and test proposed hypotheses regarding the interplay between brand image and brand awareness.

In conclusion, this study establishes that brand awareness and knowledge, particularly with regard to airline alliances, exert a discernible influence on travellers' behaviour and intentions. However, distinct mediators play a role in travellers' readiness to recommend, willingness to pay, and intention to exhibit loyalty. For example, the alliance brand heightens the perceived level of risk, leading passengers to be more inclined to recommend their experience to others. Conversely, brand awareness mitigates perceived risk, enhancing passengers' willingness to remain loyal to the airline. The cumulative effect is an elevation in travellers' satisfaction levels.

2 Literature review

2.1 Branding

The concept 'brand image' has drawn significant attention from academics and practitioners since it was put forward, because it played an important role in marketing activities (Keller et al., 1998). Although brand image was recognised as the driving force of brand asset and brand performance, few studies have elaborated on the relationship between brand image and brand equity (e.g., Seo et al., 2020; Chen, 2010).

Brand awareness is the ability of a consumer to recognise and recall a brand in different situations (Bergkvist and Taylor, 2022; Aaker, 2009). Brand awareness plays an important role in purchase intention. Consumers tend to buy a familiar and well-known product (Daou and Azzi, 2021; Ilyas et al., 2020; Bekdash, 2019). Brand awareness can help consumers recognise a brand within a product category and make a purchase decision (Ilyas et al., 2020; Percy and Rossiter, 1992). Brand awareness also acts as a critical factor in the consumer's purchase intention (Ilyas et al., 2020). A product with a high level of brand awareness will receive higher consumer preferences (Dabbous and Barakat, 2020; Hoyer and Brown, 1990) because it has a higher market share and quality evaluation (Dodds et al., 1991; Grewal et al., 1998). When a product has a positive brand image, it will help in marketing activities (Kewat et al., 2023; Shah et al., 2023; Gautam et al., 2023). Brand awareness will affect purchase decisions through brand association (Dabbous and Barakat, 2020; Kim and Chao, 2019; Keller, 2003).

In the realm of airline alliances, a traveller's level of awareness and familiarity with a specific alliance brand exerts a significant influence on their behaviour and intentions. When a traveller is well-versed in the services, partnerships, and benefits offered by a particular airline alliance, this knowledge profoundly impacts their decision-making process when booking flights or selecting airlines within that alliance. It directly shapes

their preferences, determining which airlines they are more inclined to choose for their journeys. Moreover, it also affects their intentions, influencing whether they are more likely to opt for flights within that specific alliance in the future. This dynamic process involves various mediators that moderate a traveller's propensity to recommend the alliance, their willingness to pay potentially higher fares for associated benefits, and their intention to maintain loyalty to the brand. Notably, the alliance brand also plays a pivotal role in the perception of risk. When passengers perceive the alliance brand positively, they are more inclined to enthusiastically recommend their overall travel experience, thereby contributing to an increased likelihood of future patronage.

- Hypothesis 1: Brand awareness has a positive impact on perceived quality.
- Hypothesis 2: Brand awareness lowers the perceived risk of the consumers.
- Hypothesis 3: Brand awareness has a positive direct impact on consumers willing to recommend.
- Hypothesis 4: Brand awareness has a positive direct effect on consumers willing to pay.
- Hypothesis 5: Brand awareness has a direct positive effect on consumers' intention to be loyal.

2.2 Alliance branding

It is always a worry for brand managers when their organisations sign alliance branding agreements due to the challenge of managing joint promotions and 'parent brand strategies' that have little effect or don't adversely affect their own or individual brands (Hagtvedt and Patrick, 2009). Many researchers, such as Peng and Lu (2022), Tiernan et al. (2008) and Sultan and Simpson (2000) have also questioned whether airline alliances are a good way to get into new markets if both partners offer the same level of service quality. In the end, this may impair the success of the alliance, its reputation, and the brand equity and profitability of the individual partners.

2.3 Service quality

Service quality is a significant indicator of success for service-oriented organisations. Service quality is the difference between a customer's original service expectation and the actual service experience (Lee et al., 2022; Oureh and Mokhtaran, 2020). Most academic research into airline service quality illustrates that it is important to customer satisfaction and loyalty (Lippitt et al., 2023; Park et al., 2005; Rizan, 2010), future purchase intentions (Lee et al., 2022; Park et al., 2004), and firms' competitive advantage (Aziz and Salloum, 2023; Al Sayah et al., 2023; Parast and Fini, 2010; Suzuki et al., 2001). Customer satisfaction has long been viewed as an antecedent to service quality, while customer loyalty and purchase intentions are often viewed as service outcomes. This relationship puts service quality at the centre of these factors; a better understanding of service quality in a given industry could help link the understanding of the other three. This makes examining service quality important to the airline industry (Kassir and Ashaal, 2021; Issau et al., 2023). The SERVQUAL instrument was designed by Parasuraman et al. (1991) to measure service quality in terms of tangibles, reliability,

responsiveness, assurance, and empathy. Aydin and Yildirim (2012), Fick and Brent Ritchie (1991) and Sultan and Simpson (2000) have used SERVQUAL instruments to measure airline service quality and its impact on customer satisfaction and business performance. SERVQUAL determines customers' quality perceptions as influenced by a series of five distinct gaps that can interfere with the delivery of high-quality service. Each gap measures the difference. Gap 1 assesses the difference between actual customer expectations and management's perceptions of customer expectations. Gap 2 measures the difference between management's perception of customer expectations and service quality expectations. Gap 3 addresses the difference between service quality specifications and the service actually delivered. Gap 4 assesses the difference between the service delivered and what is communicated about the service to customers. Gap 5 is arguably the most important; it occurs between customer expectations and perceptions and gauges perceived service quality (Parasuraman et al., 1985).

- Hypothesis 6: Perceived quality has a positive impact on customers willing to recommend.
- Hypothesis 7: Perceived quality has a positive impact on customer's intention to buy.
- Hypothesis 8: Perceived quality has a positive impact on customer's intention to be loyal.

2.4 Perceived risk

Deciding on relevant drivers to increase customer satisfaction in this strongly service-oriented industry requires specific knowledge of its key antecedents from the customers' perspective (Hock et al., 2010). Similarly, Anderson et al. (2008) made an important contribution to the field by discovering that overall satisfaction is a function of passengers' partial satisfaction with core service elements (consisting of satisfaction with the flight and its punctuality) and peripheral service elements (consisting of satisfaction with the aircraft, the personal space available in it, the food provided, and interactions with airline staff). Furthermore, it has been well established that customers' perceived risk generally lowers their satisfaction (Johnson et al., 2006). The declines in passenger numbers in the aftermath of the September 11, 2001, attacks indicate that risk perceptions do influence consumer behaviour in air travel. Safety can be assumed to influence customer satisfaction and to be similarly moderated by personal characteristics, especially the purpose of a trip, as the safety perceptions of business travellers differ from those of pleasure travellers (Siomkos, 2000). For instance, airlines try to limit the risks associated with air travel through various safety and security measures. Passengers are aware of general efforts to make air travel safer, but they are unable to assess actual safety levels. They therefore resort to proxy measures of safety, such as an airline's service quality (Rhoades and Waguespack, 2008), or draw conclusions about a flight's safety based on their perceptions of an aircraft's appearance or the intensity of the security checks at the airport. Consequently, these encounters strongly shape passengers' perceptions of safety.

- Hypothesis 9: Perceived risk affects negatively the consumer's intention to be loyal.
- Hypothesis 10: Perceived risk affects negatively the consumer's intention to buy.

- Hypothesis 11: Perceived risk affects negatively the consumer's willing to recommend.

To answer the main research question that entails the impact of brand awareness on customers' responses and satisfaction, the study examines brand awareness in the context of alliances in the airline industry and its link to customer behaviour.

3 Research methodology and data collection

The objective of this study is to examine the impact of passengers' familiarity with the Global Alliance brand on their travel behaviour, purchase decisions, loyalty, and satisfaction with services. To achieve this, a mixed-method approach, combining qualitative and quantitative methods, was employed to gain insights into perceived quality and risk among frequent travellers in relation to brand awareness.

The decision to employ a mixed-method approach, combining qualitative interviews and quantitative surveys, in this study is underpinned by several compelling reasons. Firstly, mixed methods enable us to gain a holistic and comprehensive understanding of the research phenomenon, in this case, the impact of passengers' familiarity with the Global Alliance brand on their travel behaviour, purchase decisions, loyalty, and satisfaction with services. By combining qualitative and quantitative data, we can explore the topic from multiple angles and provide a richer, more nuanced picture. Secondly, the use of multiple data sources allows for data triangulation, enhancing the validity and reliability of the findings. By corroborating insights obtained from qualitative interviews with quantitative survey data, we can verify and validate our results, reducing the risk of bias or misinterpretation. Finally, the research questions involve assessing the relationship between brand awareness, perceived quality, perceived risk, willingness to refer, willingness to pay, and loyalty intention. A mixed-method approach is ideal for tackling these multifaceted questions, as it enables us to both explore the factors qualitatively and quantify their impact quantitatively.

The primary data for our study was gathered using a combination of two different approaches. First, we conducted in-depth face-to-face interviews with ten travellers at the Beirut International Airport (BEY) who had been selected at random. Conducting in-depth face-to-face interviews with ten randomly selected travellers at the Beirut International Airport served several purposes. First, it allowed us to explore passengers' perspectives, perceptions, and experiences related to various airline brands, including the Global Alliance brand. These insights helped us in understanding the underlying factors that influence passengers' attitudes and behaviours. Second, interviews were conducted to stimulate participants' memories and recall relevant details about their travel experiences and brand interactions. Third, the qualitative data gathered from interviews informed the development of the structured survey, ensuring that survey questions were relevant, comprehensive, and aligned with passengers' viewpoints.

While the qualitative approach served as a framework, we then used a quantitative strategy to gather another primary information for our data analysis. We created and distributed a structured survey to a random sample of 500 individuals. The questionnaire's analytic goal was to assess the variation by identifying the effect of brand awareness on consumers' actions and intentions (stand-ins for client satisfaction) while also taking into account the mediating roles of perceived risk and quality. This approach

allowed us to gather data on a larger scale and quantify passengers' opinions, preferences, and intentions. The inclusion of ordinal scale questions about willingness to pay and optional demographic questions provided additional quantitative insights. The survey aimed to assess variations, identify the impact of brand awareness, and analyse mediating factors such as perceived risk and quality on passenger behaviours and intentions. Quantitative data was crucial for hypothesis testing, statistical analysis, and generalising findings to a broader population.

3.1 Interview design and technique

Between August and November, 2022, 60-minute interviews were conducted to gather information about the perspectives that passengers have regarding various brands, and to jog participants' memories. For privacy, this study anonymised all participants. An interview guide was used to ask unbiased, open-ended questions in common language (DeJonckheere and Vaughn, 2019). The interview responses were recorded and then transcribed. The interview was designed to accomplish two main goals: the first was to gather information about the perspectives that passengers have regarding various brands, and the second was to jog participants' memories regarding their own personal experiences, impressions, and perspectives regarding various brands. Some of the questions focused on determining whether or not travellers were able to recall brands from both the airline industry and other industries. In addition to inquiries regarding the traveller's personal information, there were also questions on the traveller's preferences, the personifications of brands, and the emotional connection they felt to the company logo.

The interview discussion was translated into Arabic to eliminate bias. We translated all sentences and prepared answers to cover all pertinent topics. We translated all Arabic statements into English for clarity. We were friendly, non-judgmental, and communicative during the conversation. Finally, the goal was to begin with a pre-testing phase and make use of the developing qualitative data from interviews to set up the questionnaire.

3.2 Survey design

The survey has 35 items constructed with a five-point Likert scale to examine the opinions of respondents. It also includes two ordinal scale questions (Q32_1 and Q32_2) to assess the passenger's willingness to pay for a ticket. Age, gender, and passenger type are included as optional questions to the survey.

This empirical study aims to comprehend the relationship between brand awareness and customer satisfaction. Eleven hypotheses are then formulated in relation to brand awareness, perceived risk, perceived quality, willingness to refer, willingness to pay, and loyalty intention. These are latent variables that cannot be directly assessed. Their measurement is achievable via the 37 items (Q1 to Q36, as well as Q32_1 and Q32_2) regarded as observed variables. It is vital to note that there are latent variables of both the first and second order. Observed factors yield first order variables such as brand awareness (Q1 to Q3) and perceived risk (Q4 to Q7).

Second order latent variables, such as perceived quality, are derived from first order latent variables, including in-flight services (Q8 to Q12), reservation-related service (Q13 and Q14), airport service (Q15 to Q18), reliability (Q19 to Q21), employee services (Q22 to Q26), flight availability (Q27 to Q28), willing to recommend (Q29 to Q31), willing to pay (Q32 1, Q32 2, and Q33), and intention to be loyal (Q34 to Q36).

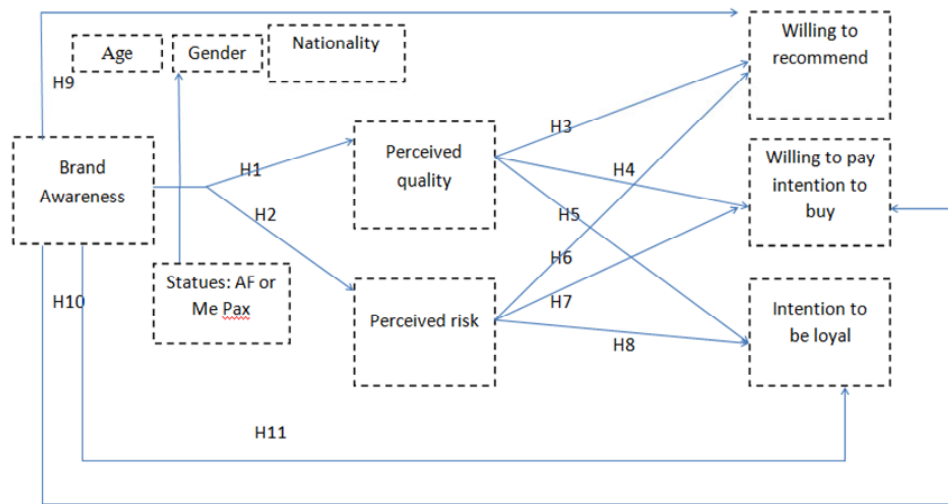
There were 500 people sent the survey, and 426 of them actually filled it out. Data was collected via two separate questionnaires with a single brand-level difference between them. The first survey is tailored specifically to the airline company, and as such, it exclusively collects data and ratings from that level (Middle East Airlines – MEA). The questions on the second survey are nearly identical to the first, with the exception of two that pertain to MEA and the strategic carrier alliance (Sky team).

3.3 Research model

It is generally agreed that raising brand awareness improves consumers' opinions of a product's quality (Liu et al., 2020; Hoyer and Brown, 1990).

Therefore, we will look at how customers' perceptions of service quality and risk affect their propensity to make future purchases, demonstrate brand loyalty, and spread the good news.

Figure 1 Proposed model and framework (see online version for colours)



3.4 Variables identification and determination

Table 1 provides a summary of the different types of scales that were used for each variable in our study specifically while we were collecting data. This table was created after a structure literature review was conducted concerning the topic that is the focus of the current investigation.

Table 1 Variable description

<i>Variable name</i>	<i>Variable scale</i>	<i>Reference</i>
<i>Independent variables</i>		
Brand awareness	Brand recall Brand recognition	Aaker (2009) and Yoo and Donthu (2001)
<i>Independent mediator variables</i>		
Perceived risk	Functional or technical risk Performance risk Financial risk Overall risk	Chen and Chang (2012, 2013)
Perceived quality	In-flight service Reservation-related service Airport service Reliability Employee services Availability of the flight schedule	Yoo and Park (2007), Park et al. (2004)
<i>Dependent variables</i>		
Intention to be loyal	Repurchase Future use Loyalty	Dick and Basu (1994), Cronin and Taylor (1992), Jones and Taylor (2000), Zeithaml et al. (1996)
Willingness to pay	Direct approach (Price range –MIN-MAX)	Abrams (1964), Stout (1969)
Willingness to recommend	Positive word of mouth Recommendation Encouragements	Tuškej et al. (2013), Kuenzel and Vaux Halliday (2008), Sichtmann (2007)

4 Results

Before initiating data collection, a pilot study is conducted to ascertain the reliability and validity of the instrument, as well as to assess the fit of the measurement model. Subsequently, the gathered data undergoes screening and analysis through various statistical techniques to scrutinise the 11 hypotheses outlined in Chapter 3.

The survey design, pilot study outcomes, data sampling methods, sample characteristics (including age, gender, and passenger type), as well as the normality of observed variables are progressively detailed. Confirmatory factor analysis (CFA) is employed to address reliability, validity, and model fit, while structural equation modelling (SEM) is constructed from latent variables to assess hypothesis acceptance. Data treatment utilises IBM SPSS® 23 for descriptive statistics, normality testing, and Cronbach's alpha, and Amos™ 23 for CFA and SEM.

Table 2 Reliability and validity measures for pilot study

<i>Latent variable</i>	<i>Observed variable</i>	<i>Loading (λ)</i>	<i>CR (>0.7)</i>	<i>AVE (>0.5)</i>	<i>Cronbach's alpha ($\alpha > 0.7$)</i>	<i>Convergent validity ($CR > AVE$)</i>
Brand awareness	Q1	0.851*	0.899	0.749	0.852	Yes
	Q2	0.894*				
	Q3	0.851*				
Perceived risk	Q4	0.498*	0.719	0.598	0.770	Yes
	Q5	0.718*				
	Q6	0.546*				
	Q7	0.727*				
In-flight service	Q8	0.795*	0.812	0.568	0.825	Yes
	Q9	0.719*				
	Q10	0.703*				
	Q11	0.656*				
	Q12	0.515*				
Reservation-related service	Q13	0.804*	0.771	0.627	0.771	Yes
	Q14	0.780*				
Airport service	Q15	0.675*	0.726	0.501	0.713	Yes
	Q16	0.669*				
	Q17	0.650*				
	Q18	0.527*				
Reliability	Q19	0.564*	0.640	0.574	0.649	Yes
	Q20	0.580*				
	Q21	0.684*				
Employee services	Q22	0.666*	0.881	0.599	0.888	Yes
	Q23	0.829*				
	Q24	0.800*				
	Q25	0.799*				
	Q26	0.765*				
Flight availability	Q27	0.796*	0.701	0.542	0.678	Yes
	Q28	0.671*				
Willing to Recommend	Q29	0.864*	0.878	0.706	0.877	Yes
	Q30	0.852*				
	Q31	0.804*				
Willing to pay	Q32_1	0.755*	0.700	0.572	0.661	Yes
	Q32_2	0.872*				
	Q33	0.295*				
Intention to be loyal	Q34	0.843*	0.875	0.701	0.872	Yes
	Q35	0.845*				
	Q36	0.823*				

Note: *Significant at $p < 0.05$

A pretest pilot study follows the definition of measurement constructs, involving the generation of items derived from existing scales and insights gathered from passenger interviews. This qualitative phase, preceding the quantitative study, aids in refining the conceptual domain and ensures alignment of constructs and items with the research focus.

Reliability, validity, and model fit are rigorously evaluated through the pilot study prior to survey distribution. This study involved 94 respondents who completed the survey. CFA, employing maximum likelihood estimation, is chosen due to the a priori nature of hypotheses with predefined latent variables (Cudeck, 2000).

The study evaluates reliability through two metrics: composite reliability (CR) and Cronbach's alpha (α). Reliability assesses the internal consistency of observed variables in measuring the same underlying construct. A CR value above 0.7 indicates strong reliability (Malhotra and Dash, 2011), while a Cronbach's α value exceeding 0.6 signifies satisfactory reliability (Gliem and Gliem, 2003). Inspection of both CR and Cronbach's α values confirms they meet these criteria, affirming the instruments' reliability.

Validity is determined by factor loading (λ) and average variance extracted (AVE). Factor loadings reflect the strength of the relationship between observed and latent variables, while AVE gauges the proportion of a latent variable explained by its observed indicators. All loadings are statistically significant at $p < 0.05$, indicating a robust association between latent and observed variables. Additionally, all AVE values surpass 0.5 and are less than CR, demonstrating strong convergent validity.

Model fit is assessed using various criteria, including the Chi-square over degree of freedom (CMIN/DF) absolute fit measure (Harrington, 2009). The pilot test model exhibits a CMIN/DF value of 1.621, which falls within the excellent range (1 to 3). This affirms the validity, reliability, and model fit for the pilot study, warranting that no items should be omitted from the survey. Thus, employing a robust sampling method is crucial for further data collection and hypothesis investigation. Details regarding sample techniques and size are discussed in the subsequent section.

4.1 Data analysis

The score Z is set at a value of 1.96 whereby a 95% confidence interval is used, p is set at a value of 0.5 indicating the probability of choosing a right answer, and se is set at a value of ± 0.05 , which represents the margin of error. The latter figures produce a sample size of 385 participants.

The survey is distributed to 500 participants out of which 426 duly completed survey. Two questionnaires were used to collect data using one difference only at the brand level. The first questionnaire contains information and evaluation related to the airline level only (MEA). The second questionnaire holds the same questions with only one difference related to MEA and the strategic airline alliance (Sky team). The latter indicates a response rate of 85.2%. Further, since a comparison between MEA and MEA and SKYTEAM is preplanned, the 500 participants were conveniently divided in two independent groups of equal sizes. The 426 kept surveys show that 53% of the participant belongs to MEA & SKYTEAM group. The collected data is now ready for statistical treatment starting with description of the sample's characteristics (Age, gender, and passenger type) reported in the following section.

4.2 Descriptive analysis

The age categories for the respondents show that the majority 57.28% of the respondents are between 26 and 35 years old, followed by 15.02% are between 46 and 55 years old. In addition, 54.69% of the respondents are males and 45.31% are female. To add most of the respondent (85.45%) travels in economy class while 10.33% travel in business class.

Referring to Table 3, all standardised scores fall outside ± 1.96 to the exemption of Z_{kurt} of Q11 and Q32_1. Then skewness can be inferred for all observed variables and kurtosis can be inferred for all observed variables to the exemption of Q11 and Q32_1.

Table 3 Measures of distribution of each observed value

Item	Skewness	SES	Kurtosis	SEK	Z_{skew}	Z_{kurt}	SW	p
Q1	-1.437	0.118	1.469	0.236	-12	6.23	0.739	0.0001
Q2	-1.207	0.118	0.891	0.236	-10	3.78	0.777	0.0001
Q3	-1.385	0.118	1.839	0.236	-5.9	7.79	0.775	0.0001
Q4	-.726	0.118	0.368	0.236	7.79	1.56	0.838	0.0001
Q5	-1.228	0.118	2.524	0.236	1.56	10.7	0.742	0.0001
Q6	-.861	0.118	1.334	0.236	-7.3	5.65	0.827	0.0001
Q7	-1.595	0.118	5.769	0.236	-13	24.4	0.700	0.0001
Q8	-1.036	0.118	1.959	0.236	-8.8	8.3	0.810	0.0001
Q9	-1.073	0.118	2.026	0.236	-9.1	8.59	0.801	0.0001
Q10	-0.883	0.118	0.635	0.236	-7.5	2.69	0.823	0.0001
Q11	-0.743	0.118	0.123	0.236	-6.3	0.52	0.849	0.0001
Q12	-1.110	0.118	1.372	0.236	-9.4	5.81	0.797	0.0001
Q13	-1.139	0.118	3.651	0.236	-9.6	15.5	0.727	0.0001
Q14	-1.165	0.118	3.691	0.236	-9.9	15.6	0.727	0.0001
Q15	-1.641	0.118	5.200	0.236	-14	22	0.680	0.0001
Q16	-1.210	0.118	2.247	0.236	-10	9.52	0.781	0.0001
Q17	-0.741	0.118	1.875	0.236	-6.3	7.95	0.798	0.0001
Q18	-0.133	0.118	-0.269	0.236	-1.1	-1.14	0.890	0.0001
Q19	-1.363	0.118	3.459	0.236	-12	14.7	0.738	0.0001
Q20	-0.636	0.118	0.999	0.236	-5.4	4.23	0.806	0.0001
Q21	-1.119	0.118	2.881	0.236	-9.5	12.2	0.762	0.0001
Q22	-1.188	0.118	6.437	0.236	-10	27.3	0.662	0.0001
Q23	-1.048	0.118	3.110	0.236	-8.9	13.2	0.752	0.0001
Q24	-0.768	0.118	1.476	0.236	-6.5	6.25	0.812	0.0001
Q25	-0.642	0.118	1.613	0.236	-5.4	6.83	0.804	0.0001
Q26	-0.920	0.118	2.127	0.236	-7.8	9.01	0.783	0.0001
Q27	-1.223	0.118	5.119	0.236	-10	21.7	0.692	0.0001
Q28	-0.672	0.118	0.455	0.236	-5.7	1.93	0.845	0.0001
Q29	-1.227	0.118	6.426	0.236	-10	27.2	0.662	0.0001
Q30	-1.262	0.118	3.451	0.236	-11	14.6	0.741	0.0001
Q31	-1.116	0.118	2.976	0.236	-9.4	12.6	0.761	0.0001
Q32_1	0.489	0.118	-0.128	0.236	4.14	-0.54	0.897	0.0001

Table 3 Measures of distribution of each observed value (continued)

<i>Item</i>	<i>Skewness</i>	<i>SES</i>	<i>Kurtosis</i>	<i>SEK</i>	<i>Z_{skew}</i>	<i>Z_{kurt}</i>	<i>SW</i>	<i>p</i>
Q32_2	−0.137	0.118	−1.104	0.236	−1.2	−4.68	0.898	0.0001
Q33	−0.516	0.118	−0.183	0.236	−4.4	−0.78	0.882	0.0001
Q34	−0.974	0.118	2.866	0.236	−8.2	12.1	0.753	0.0001
Q35	−0.441	0.118	0.758	0.236	−3.7	3.21	0.834	0.0001
Q36	−0.842	0.118	0.906	0.236	−7.1	3.84	0.819	0.0001

All observed variables depart from normality with $p < 0.05$. Even though such finding might hinder a vital assumption from many statistical procedures such as normality, the use of maximum likelihood as a method of estimation significantly tolerates the departure from normality (Kline, 2005). After the description of the data distribution, CFA can be proceeded to test for reliability, validity, and model fit. This will be discussed in the following section.

4.3 Confirmatory factor analysis

The reliability and validity measures are reported in Table 4. All CR values greater than 0.7 indicate strong reliability. All Cronbach's α values greater than 0.6 indicate satisfactory reliability. A visual inspection of all CR and Cronbach's α values shows that they abide by the mentioned criteria, hence the instruments are reliable.

Table 4 Reliability and validity measures for pilot study

<i>Latent variable</i>	<i>Observed variable</i>	<i>Loading (λ)</i>	<i>CR (>0.7)</i>	<i>AVE (>0.5)</i>	<i>Cronbach's alpha ($\alpha > 0.7$)</i>	<i>Convergent validity (CR > AVE)</i>
Brand awareness	Q1	0.845*	0.849	0.658	0.854	Yes
	Q2	0.909*				
	Q3	0.658*				
Perceived risk	Q4	0.602*	0.763	0.552	0.766	Yes
	Q5	0.830*				
	Q6	0.549*				
	Q7	0.676*				
In-flight service	Q8	0.819*	0.843	0.522	0.824	Yes
	Q9	0.761*				
	Q10	0.759*				
	Q11	0.678*				
	Q12	0.568*				
Reservation-related service	Q13	0.758*	0.741	0.588	0.762	Yes
	Q14	0.776*				
Airport service	Q15	0.622*	0.709	0.588	0.709	Yes
	Q16	0.724*				
	Q17	0.682*				
	Q18	0.419*				

Note: *Significant at $p < 0.05$

Table 4 Reliability and validity measures for pilot study (continued)

<i>Latent variable</i>	<i>Observed variable</i>	<i>Loading (λ)</i>	<i>CR (>0.7)</i>	<i>AVE (>0.5)</i>	<i>Cronbach's alpha ($\alpha > 0.7$)</i>	<i>Convergent validity ($CR > AVE$)</i>
Reliability	Q19	0.580*	0.621	0.553	0.641	Yes
	Q20	0.615*				
	Q21	0.588*				
Employee services	Q22	0.595*	0.881	0.604	0.886	Yes
	Q23	0.927*				
	Q24	0.906*				
	Q25	0.725*				
	Q26	0.680*				
Flight availability	Q27	0.791*	0.660	0.597	0.681	Yes
	Q28	0.607*				
Willing to recommend	Q29	0.853*	0.863	0.677	0.873	Yes
	Q30	0.832*				
	Q31	0.782*				
Willing to pay	Q32_1	0.773*	0.683	0.554	0.664	Yes
	Q32_2	0.830*				
	Q33	0.275*				
Intention to be loyal	Q34	0.821*	0.835	0.627	0.867	Yes
	Q35	0.811*				
	Q36	0.742*				

Note: *Significant at $p < 0.05$

Validity is assessed through factor loadings (λ) and AVE. Factor loadings quantify the relationship between observed and underlying variables, while AVE gauges the proportion of a latent variable explained by its observed indicators. Both λ and AVE are presented in the table. Significantly, all loadings demonstrate a strong association between latent and observed variables at a p -value < 0.05 , affirming the adequacy of this relationship. Additionally, with AVE values surpassing 0.5 and being less than CR, there is robust evidence of good convergent validity. As a result, both validity and reliability are confirmed.

The adequacy of the model fit is evaluated using two key indicators: the Chi-square over degree of freedom ratio (CMIN/DF) and the standardised root mean residual (SRMR). The CMIN/DF value of 4.099 falls within the acceptable range of 3 to 5, indicating a satisfactory fit. Additionally, the SRMR value of 0.096, falling between 0.08 and 0.1, further confirms an acceptable fit. As a result, the model demonstrates a good fit, setting the stage for the examination of the 11 hypotheses within the SEM framework in the subsequent section.

4.4 Analysing hypotheses using SEM

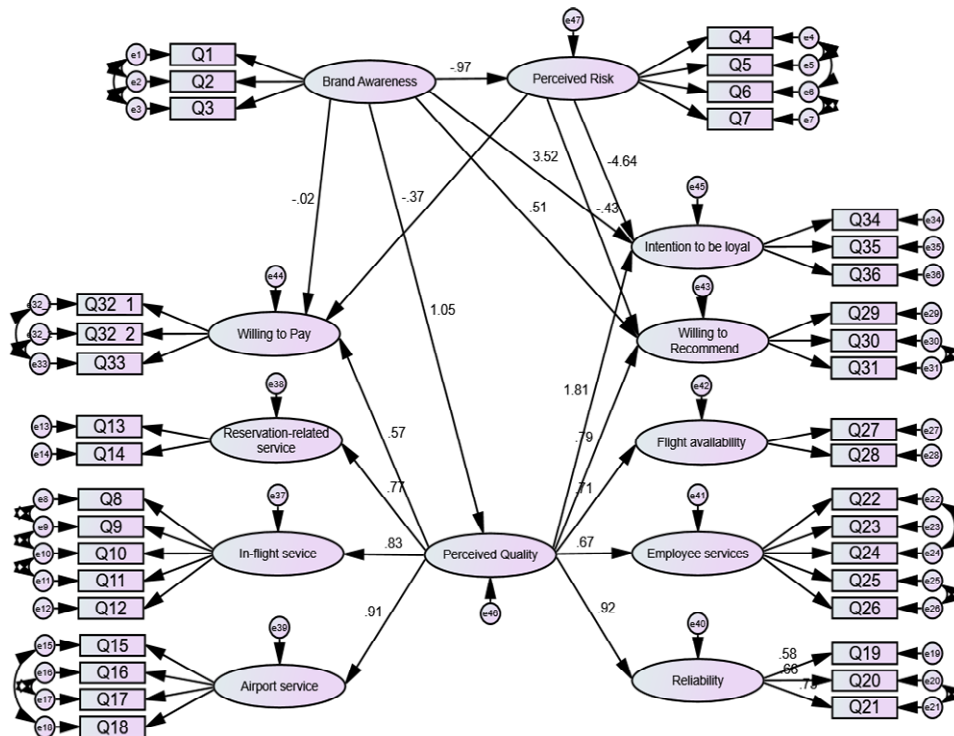
The data analysis in this thesis aims to explore the relationship between brand awareness and customer satisfaction by examining 11 hypotheses that delineate the interplay of

multiple independent and dependent latent variables encompassing brand awareness, perceived risk, perceived quality, willingness to recommend, willingness to pay, and intention to be loyal. When scrutinising such relationships, SEM is the recommended confirmatory approach, as endorsed by Byrne (2016). SEM proves robust in testing multiple hypotheses simultaneously, offering a valid and reliable tool.

In this study, standardised path coefficients are utilised for comparability, a crucial aspect in conducting a comparative analysis between MEA and the MEA and SKYTEAM scenarios for various hypotheses. Both standardised and unstandardised path coefficients are deemed statistically significant at $p < 0.05$ and $p < 0.1$, indicating 95% and 90% confidence intervals in the results, respectively. Path coefficients can be either positive, signifying that both independent and dependent variables move in the same direction, or negative, indicating opposite directions.

Before delving into hypothesis testing, the complete structural causal model is visually represented in Figure 2. Here, ellipses denote latent variables, rectangles signify observed variables, and circles represent residual errors – these being the disparities between observed and estimated values. Single-headed arrows depict causal relationships from independent to dependent variables, with standardised path coefficients provided. Additionally, single-headed arrows connect latent to observed values.

Figure 2 The structural causal model (see online version for colours)



Hypotheses, standardised path coefficients, and significance are reported below.

Moreover, a hypothesis is considered valid at two critical junctures:

- 1 when it exhibits statistical significance within the sample, with p-values of less than 0.05 or 0.1
- 2 following a post hoc power analysis which assesses the model's capacity to accurately detect a significant effect that genuinely exists.

This analysis takes into account sample size ($n = 426$), significance level ($\alpha = 0.05$), the number of predictors involved in the hypothesis, and the coefficient of determination R^2 (Soper, 2017). The crucial threshold for statistical power is set at 0.8, indicating that a finding is reliable within the sample only when the statistical power exceeds 0.8.

Table 5 Empirical testing of hypotheses

<i>Hypothesis</i>	<i>Path coefficient</i>	<i>Decision</i>
H1: Brand awareness has a positive impact on perceived quality	1.054*	Accepted
H2: Brand awareness lowers the perceived risk of the costumers	-0.966*	Accepted
H3: Perceived quality has a positive impact on customer's willing to recommend	0.788*	Accepted
H4: Perceived quality has a positive impact on customer's willing to pay	0.572**	Accepted
H5: Perceived quality has a positive impact on customer's intention to be loyal	1.807*	Accepted
H6: Perceived risk affects negatively the costumer's willing to recommend	-0.425*	Accepted
H7: Perceived risk affects negatively the customer's willing to pay	-0.372*	Accepted
H8: Perceived risk affects negatively the customer's intention to be loyal	-4.643**	Accepted
H9: Brand awareness has positive direct impact on customer's willing to recommend	0.508*	Accepted
H10: Brand awareness has a positive direct effect on customer's willing to pay	-0.016 (NS)	Rejected
H11: Brand awareness has a direct positive effect on customer's intention to be loyal	3.519 (NS)	Rejected

Notes: *Significant at $p < 0.05$; **Significant at $p < 0.1$; NS = not significant.

4.4.1 The impact of brand awareness on perceived quality (Hypothesis 1)

Hypothesis 1 posits that brand awareness exerts a positive influence on perceived quality. SEM results demonstrate a significant positive standardised path coefficient of 1.054 ($p < 0.05$), validating the acceptance of H1. The post hoc power analysis considers sample size ($n = 426$), significance level ($\alpha = 0.05$), one predictor (brand awareness), and coefficient of determination ($R^2 = 0.111$). The observed statistical power of 0.999 provides a 95% confidence level that the finding is not solely an artifact of the sample, thus affirming the positive impact of brand awareness on perceived quality.

This study's findings underscore that a higher level of brand awareness positively influences customers' purchasing decisions by enhancing perceived quality. This suggests that when a product aligns with consumers' expectations upon trial, it contributes to a positive purchasing experience.

4.4.2 The impact of brand awareness on perceived risk (Hypothesis 2)

Hypothesis 2 postulates that brand awareness leads to a reduction in perceived customer risk. SEM results reveal a significant negative standardised path coefficient of -0.966 ($p < 0.05$). This signifies that as brand awareness increases, perceived risk decreases. The empirical evidence substantiates the acceptance of H2.

The post hoc power analysis incorporates sample size ($n = 426$), significance level ($\alpha = 0.05$), one predictor (Brand awareness), and coefficient of determination ($R^2 = 0.934$). The observed statistical power of 0.99999999 instils a 95% confidence level that this finding transcends the sample, affirming that brand awareness indeed mitigates perceived risk.

4.4.3 The impact of perceived quality on the customer's willing to recommend (Hypothesis 3)

Hypothesis 3 posits that perceived quality positively influences a customer's willingness to recommend. SEM analysis yields a significant positive standardised path coefficient of 0.788 ($p < 0.05$). This empirical evidence substantiates the acceptance of H3.

The post hoc power analysis incorporates sample size ($n = 426$), significance level ($\alpha = 0.05$), one predictor (perceived quality), and coefficient of determination ($R^2 = 0.804$). The observed statistical power of 0.99999999 instils a 95% confidence level that this finding transcends the sample, affirming that perceived quality indeed enhances a customer's willingness to recommend.

4.4.4 The impact of perceived quality on the customer's willing to pay (Hypothesis 4)

Hypothesis 4 asserts that perceived quality positively influences a customer's willingness to pay. SEM results reveal a significant positive standardised path coefficient of 0.372 ($p < 0.1$). This empirical finding substantiates the acceptance of H4.

The post hoc power analysis considers sample size ($n = 426$), significance level ($\alpha = 0.05$), one predictor (perceived quality), and coefficient of determination ($R^2 = 0.25$). The observed statistical power of 0.99999999 instils a 95% confidence level that this finding transcends the sample, affirming that perceived quality indeed enhances a customer's willingness to pay.

4.4.5 The impact of perceived quality on the customer's intention to be loyal (Hypothesis 5)

Hypothesis 5 postulates that perceived quality positively influences a customer's intention to be loyal. SEM results reveal a significant positive standardised path coefficient of 1.807 ($p < 0.05$). This empirical evidence substantiates the acceptance of H5.

The post hoc power analysis incorporates sample size ($n = 426$), significance level ($\alpha = 0.05$), one predictor (Perceived quality), and coefficient of determination ($R^2 = 0.15$). The observed statistical power of 0.99999999 instils a 95% confidence level that this finding transcends the sample, affirming that perceived quality indeed fosters a customer's intention to be loyal.

4.4.6 *The impact of perceived risk on the customer's willing to recommend (Hypothesis 6)*

Hypothesis 6 posits that perceived risk exerts a negative impact on a customer's willingness to recommend. SEM results reveal a significant negative standardised path coefficient of -0.425 ($p < 0.05$). This empirical finding substantiates the acceptance of H6.

The post hoc power analysis considers sample size ($n = 426$), significance level ($\alpha = 0.05$), one predictor (perceived risk), and coefficient of determination ($R^2 = 0.804$). The observed statistical power of 0.99999999 instils a 95% confidence level that this finding transcends the sample, affirming that perceived risk indeed diminishes a customer's willingness to recommend.

4.4.7 *The impact of perceived risk on the customer's willing to pay (Hypothesis 7)*

Hypothesis 7 posits that perceived risk exerts a negative influence on the customer's willingness to pay. Results obtained from the SEM analysis reveal a significant, negative standardised path coefficient of -0.372 at $p < 0.05$, thus affirming the acceptance of H7.

The corresponding test incorporates factors such as sample size ($n = 426$), significance level ($\alpha = 0.05$), the number of predictors (one predictor in this case, i.e., Perceived risk), and the coefficient of determination ($R^2 = 0.25$). Notably, the observed statistical power stands at an impressive 0.99999999, providing a 95% confidence level that this finding is robust and not solely contingent on the sample. Consequently, it is established that perceived risk exerts a negative impact on the customer's willingness to pay.

4.4.8 *The impact of perceived risk on the customer's intention to be loyal (Hypothesis 8)*

Hypothesis 8 posits that perceived risk negatively impacts the customer's intention to be loyal. SEM results demonstrate a substantial, negative standardised path coefficient of -4.643 at $p < 0.1$, thus confirming the acceptance of H8.

The corresponding test incorporates factors such as sample size ($n = 426$), significance level ($\alpha = 0.05$), the number of predictors (one predictor in this case, i.e., perceived risk), and the coefficient of determination ($R^2 = 0.15$). Notably, the observed statistical power stands at an impressive 0.99999999, providing a 95% confidence level that this finding is robust and not solely contingent on the sample. Consequently, it is established that perceived risk negatively affects the customer's intention to be loyal.

4.4.9 *The impact of brand awareness on the customer's willing to recommend (Hypothesis 9)*

Hypothesis 9 asserts that brand awareness positively impacts the customer's willingness to recommend. The SEM analysis yields a significant, positive standardised path coefficient of 0.508 at $p < 0.05$, thereby confirming the acceptance of H9.

This evaluation encompasses considerations such as sample size ($n = 426$), significance level ($\alpha = 0.05$), the number of predictors (in this case, one predictor – brand awareness), and the coefficient of determination ($R^2 = 0.804$). Remarkably, the observed

statistical power stands at an impressive 0.99999999, providing a 95% confidence level that this finding is robust and not solely contingent on the sample. Consequently, it is established that brand awareness positively influences the customer's willingness to recommend.

4.4.10 The impact of brand awareness on the customer's willing to pay (Hypothesis 10)

Hypothesis 10 posits that brand awareness positively influences the customer's willingness to pay. However, SEM analysis reveals a non-significant, negative standardised path coefficient of -0.016 at all significance levels. This finding contradicts H10 and leads to its rejection. Consequently, it is crucial to investigate whether perceived risk and perceived quality act as mediators in the relationship between brand awareness and the customer's willingness to pay.

Mediation analysis involves assessing both direct and indirect effects (Mathieu and Taylor, 2006). The direct effect is represented by the standardised path coefficient indicating the direct relationship between independent and dependent variables. Conversely, the indirect effect pertains to the standardised path coefficient signifying the mediated relationship between independent and dependent variables. Full mediation occurs when the direct effect is non-significant and the indirect effect is significant. Partial mediation is observed when both the direct and indirect effects are significant. Please refer to Table 6 for detailed results from the mediation computations.

Table 6 The effect of mediation on H10 and H11

<i>Hypothesis</i>	<i>Direct effect</i>	<i>Indirect effect</i>	<i>Conclusion</i>
H10: Brand awareness has a positive effect on customer's willing to pay	0.033 (NS)	0.211*	Full mediation
H11: Brand awareness has a positive effect on customer's intention to be loyal	0.040 (NS)	0.416*	Full mediation

Notes: * $p < 0.05$; NS = Not significant

It is evident that the direct effect of brand awareness on customer's willing to pay is not significant with a standardised path coefficient of 0.033. Nevertheless, the indirect effect is significant at $p < 0.05$ with a positive standardised path coefficient of 0.211. The post hoc power analysis is computed using the size of the sample ($n = 426$), the significance level ($\alpha = 0.05$), the number of predictors (three predictors here which are brand awareness, perceived risk, and perceived quality), and the coefficient of determination ($R^2 = 0.148$). The observed statistical power here is 0.99999999 which gives a 95% confidence that this finding is not only due to the sample, hence brand awareness positively affects the customer's willing to pay when mediated by both perceived risk and perceived quality.

4.4.11 The impact of brand awareness on the customer's intention to be loyal (Hypothesis 11)

Hypothesis 11 states that brand awareness has a positive impact on the customer's intention to be loyal. Results from SEM show a positive standardised path coefficient of

3.519 that is not significant at any level. This finding contradicts H11 that can be rejected.

Nevertheless, it becomes pertinent to test whether or not perceived risk and perceived quality mediate the relationship between brand awareness and the customer's intention to be loyal.

The mediation results are reported. The direct effect of brand awareness on customer's intention to be loyal is not significant with a standardised path coefficient of 0.040. Nevertheless, the indirect effect is significant at $p < 0.05$ with a positive standardised path coefficient of 0.416. The post hoc power analysis is computed using the size of the sample ($n = 426$), the significance level ($\alpha = 0.05$), the number of predictors (three predictors here which are brand awareness, perceived risk, and perceived quality), and the coefficient of determination ($R^2 = 0.766$). The observed statistical power here is 0.99999999, which gives a 95% confidence that this finding is not only due to the sample, hence brand awareness positively affects the customer's intention to be loyal when mediated by both perceived risk and perceived quality.

5 Comparative analysis of hypotheses between MEA and MEA and SKYTEAM

After concluding the assessment of the 11 hypotheses, there arises a need to conduct a comparative analysis, distinguishing between passengers who are aware of the SKYTEAM alliance (MEA and SKYTEAM) and those who are solely aware of MEA. Hypotheses 1, 2, 9, 10, and 11 examine the influence of brand awareness on perceived quality, perceived risk, willingness to recommend, willingness to pay, and intention to be loyal, respectively. These hypotheses are reevaluated by segregating passengers based on their awareness of the alliance.

It is noteworthy that the disparity in standardised path coefficients for the same hypothesis is appraised through a Chi-square statistic with one degree of freedom. The critical value for this comparison is 3.841. Consequently, any Chi-square value falling below 3.841 signifies no statistically significant distinction between the two groups.

Table 7 Comparison of the effect of brand awareness on perceived quality, perceived risk, willing to recommend, willing to pay, and intention to be loyal

Hypothesis	Standardised path coefficient			Decision
	MEA and SKYTEAM	MEA	Chi-square (df)	
H1	1.344*	0.940*	6.7736 (1)	Significant difference
H2	-0.866*	-0.976*	1.358 (1)	No difference
H9	0.582*	0.435*	7.355 (1)	Significant difference
H10	0.140*	0.293*	6.309 (1)	Significant difference
H11	1.390*	0.898*	0.297 (1)	No difference

Notes: *Significant at $p < 0.05$; **significant at $p < 0.1$; NS = Not significant

A visual examination of the outcomes does not reveal a substantial difference between passengers who are cognisant of the alliance and those who are not, as evidenced by their respective Chi-square statistics values, all of which fall below 3.841. This indicates that passengers who are aware of the MEA and SKYTEAM alliance do not exhibit

significantly lower perceived risk (H2) or higher intention to be loyal (H11) compared to those who lack awareness of the alliance.

On the other hand, distinctions emerge in the case of perceived quality (H1), willingness to recommend (H9), and willingness to pay (H10), as denoted by their Chi-square statistics exceeding 3.841. Passengers who are aware of the MEA and SKYTEAM alliance tend to perceive quality 1.43 times more favourably than those who are not aware. Additionally, they are 1.34 times more inclined to recommend, whereas passengers lacking awareness of the alliance demonstrate willingness to pay twice as much as their aware counterparts.

6 Conclusions

This study endeavors to determine the influence of global alliance brand awareness on passenger behaviour, as manifested by their inclination to recommend and purchase, intention to exhibit loyalty, and overall satisfaction with a specific brand or service provider. The investigation explored 11 hypotheses assessing the relationships between critical latent variables in the context of the global airline industry. The findings illuminate significant associations between these constructs. Specifically, brand awareness demonstrated a positive influence on perceived quality ($\lambda = 1.054$, $p < 0.05$) and a negative impact on perceived risk ($\lambda = -0.966$, $p < 0.05$). Perceived quality positively influenced willingness to recommend ($\lambda = 0.788$, $p < 0.05$), willingness to pay ($\lambda = 0.572$, $p < 0.1$), and intention to be loyal ($\lambda = 1.807$, $p < 0.05$). Conversely, perceived risk negatively affected willingness to recommend ($\lambda = -0.425$, $p < 0.05$), willingness to pay ($\lambda = -0.372$, $p < 0.05$), and intention to be loyal ($\lambda = -4.643$, $p < 0.1$). Additionally, brand awareness had a direct positive impact on willingness to recommend ($\lambda = 0.508$, $p < 0.05$). However, brand awareness did not exhibit a significant direct effect on willingness to pay ($\lambda = -0.016$, NS) or intention to be loyal ($\lambda = 3.519$, NS). These findings shed light on the intricate dynamics of brand awareness and its repercussions on passenger behaviour, offering valuable insights for stakeholders in the global airline industry.

This study establishes that brand awareness and knowledge, particularly with regard to airline alliances, exert a discernible influence on travellers' behaviour and intentions. However, distinct mediators play a role in travellers' readiness to recommend, willingness to pay, and intention to exhibit loyalty. For example, the alliance brand heightens the perceived level of risk, leading passengers to be more inclined to recommend their experience to others. Conversely, brand awareness mitigates perceived risk, enhancing passengers' willingness to remain loyal to the airline. The cumulative effect is an elevation in travellers' satisfaction levels. These findings shed light on the intricate dynamics of brand awareness and its repercussions on passenger behaviour, offering valuable insights for stakeholders in the global airline industry.

Therefore, our study fills a critical gap in the existing literature by delving into the impact of global airline alliance branding on customer satisfaction and service quality assessment – an aspect often overlooked in previous research. Unlike most studies that focus on individual airline brands, our investigation centred on the collective influence of global airline alliances, using the SkyTeam brand as a prominent example. Specifically, we honed in on the effect of brand awareness within the Global Airlines Alliance on passenger satisfaction.

The significance of probing into the role of global airline alliance brands is underscored by several key factors. Firstly, airlines increasingly join alliances to augment customer benefits, such as extended routes, seamless travel experiences, and enhanced frequent flyer programs. By effectively communicating a robust brand image of the membered alliance, these airlines have the potential to gain a distinct competitive advantage. Secondly, as elucidated in the literature, the global airline alliance brand elevates customer expectations for service quality, potentially justifying premium pricing and fostering positive word-of-mouth endorsements. This creates an additional avenue for airline managers to position themselves as high-quality carriers. Thirdly, the association of a global airline alliance brand with a perception of safety provides passengers with an added layer of assurance.

In summary, our findings unequivocally demonstrate a positive correlation between the global airline alliance brand and passenger satisfaction. Notably, for Lebanon-based carriers like MEA, which often operate in regions characterised by occasional security challenges, alliance membership serves to mitigate perceived risks – a particularly crucial factor in areas with abnormal situations.

While our research offers valuable insights, it is essential to acknowledge its limitations. Our study primarily focused on the case of SkyTeam, one of the three major global alliances, and evaluated its brand perception within the context of Lebanon. Given Lebanon's unique geopolitical landscape and occasional security challenges, it diverges from what is traditionally considered a 'normal' tourist destination. Future research endeavours should prioritise examining the impact of global airline alliance branding in countries characterised by stable political environments and secure conditions. This will provide deeper insights into the unvarnished effect of global airline alliance brands on customer satisfaction in more standard settings, thereby contributing to a more comprehensive understanding of this dynamic in the aviation industry.

7 Managerial contributions

The responsibility of airline managers relies on building a high recognisable and recallable brand to generate favourable and positive associations in the consumer's minds. As alliance brand awareness became increasingly a strategic plan to counter the effect of fierce competition and provide more value to customers, this thesis has important implications for practitioners. The results of this study tell the practitioners that joining a global alliance can have a positive effect on the perceived service quality. Thus, it is very important that the practitioners carefully consider the level of alliance brand category, determine whether customers are aware, and can recall the alliance brand. If the global alliance brand awareness is low, companies will lose the opportunity to raise the level of the perceived quality in the consumer's mind. These findings suggest that companies should try through communicational programs, and repetitive advertising campaigns to reinforce the brand image of the alliance. Furthermore, results demonstrated that perceived risk in the Lebanese consumer's mind is not affected significantly when they are aware of the global alliance brand. The possibility that perceived risk will be affected by alliance brand awareness is related to cultural context and country of origin. Practitioners should have different awareness strategies for different diversified consumers.

Overall, the results suggested that the brand awareness strategy represents today an opportunity in the market for companies and specifically airlines. Through integrated communication and advertising plan, the awareness of global alliances brand should be considered to elevate the service quality perception and motivate customers to take positive behaviours. Managers should benefit from the alliance brand attributes and enforce its positive images to affect the intentions of the customers. Marketers have to invest substantial sums of money to improve a brand's overall awareness levels. The advertising and promotional effort should be intensified until awareness returns to the desired level.

Managers should be able to validate the outcome of joining a strategic alliance by understanding how and why strategic alliances affect their customers' value, and/or what type of value is generated through alliances. As for MEA marketing manager, the major contribution of this study represents in the findings that its allied brand with sky team have potential to assist its individual brand by drawing positive associations and image after a successful brand awareness action.

8 Academic contributions

This study clarifies the concept of alliance brand awareness and successfully extends it into brand alliance research. Waluya et al. (2019) have also indicated that brand awareness indirectly affects purchase behaviour, as it has a positive influence on perceptions and attitudes towards the brand recall and retrievability to impact to the purchase of the brand i.e., repeated purchase behaviour which creates consumer/brand loyalty.

Second, this study provides clear evidence that the brand awareness affects the passengers willing to pay and spread of positive word of mouth. Contrary to the previous research findings, effect of awareness of alliance brand on perceived risk was not found significant in this study.

The quantitative study of this thesis contributes to the body of knowledge of literature investigating the effect of brand awareness of an alliance on the consumer's behavioural intentions. The study concluded that customers when they are well aware of the alliance brand, their perception about service quality increases, and they are willing to pay more, and recommends favourably about the company. These conclusions confirm previous studies done by Kotler (2009) and Keller (2003) that brand awareness, if built correctly, increases the level of perceived quality and affect the behaviour of the customer. The study also reveals interesting conclusion which is represented by customers who are aware of the alliance brand are not willing to give more loyalty from people not aware of the alliance brand. This confirms with Konecnik and Gartner (2007) studies that strategic brand awareness is not a sufficient necessarily leading to repeat purchases and trails. The effect between the alliance brand awareness and customer's intention to be loyal has been found to be affected indirectly through mediating variables such as perceived risk and perceived quality.

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