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BETWEEN PERCEIVED SERVICE QUALITY AND PASSENGER  
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Simon Peter Njoroge  
Prof. F.N. Kibera  
Prof. G. Wainaina  
Dr. R. Musyoka

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University of Nairobi

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## THE ROLE OF BRAND EXPERIENCE IN THE RELATIONSHIP BETWEEN PERCEIVED SERVICE QUALITY AND PASSENGER SATISFACTION AT AIRPORTS IN KENYA

Simon Peter Njoroge<sup>1</sup>, Prof. F.N. Kibera<sup>2</sup>, Prof. G. Wainaina<sup>3</sup>, Dr. R. Musyoka<sup>4</sup>

### Abstract

The paucity of research examining the antecedents of satisfaction inspires the need to extend the frontiers of knowledge in the under-researched and emerging market environment of the airport user experience. The purpose of this study was to examine the role of brand experience on the relationship between perceived service quality and passenger satisfaction. A descriptive cross-sectional research design was adopted. Primary data was obtained through semi-structured questionnaires from 700 randomly selected respondents. Structural equation modelling partial least squares (SEM-PLS) techniques were applied to analyze the data. Results revealed that a positive relationship was present amongst the studied variables. The five components of perceived service quality namely; reliability, responsiveness, assurance, tangibility, empathy had a significant influence on overall satisfaction. The four dimensions of the brand experience scale; sensorial, affective, behavioral and intellectual were revealed to be valid and applicable while examining passenger satisfaction in the airport service context. Lastly, the study revealed a complementary partial mediation effect of brand experience on the relationship between perceived service quality and passenger satisfaction. The moderating effect of passenger socio-demographic characteristics on the examined relationships could be further investigated. This study was conducted among passengers who were using the airport for international departure flights in Kenya. Consequently, the findings are largely generalizable to this type and segment of air travel service consumers. This study contributes to ongoing research into the influence of perceived service quality on passenger satisfaction while incorporating the nascent construct of brand experience. Managers could apply the results of the study as an anchor for service quality, satisfaction and brand experience improvement initiatives.

**Key words:** Perceived service quality, passenger satisfaction, brand experience, mediation

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<sup>1</sup> Faculty of Business and Management sciences, University of Nairobi - [spnjoroge@gmail.com](mailto:spnjoroge@gmail.com)

<sup>2</sup> Professor, Faculty of Business and Management sciences, University of Nairobi

<sup>3</sup> Associate Professor, Faculty of Business and Management sciences, University of Nairobi

<sup>4</sup> Senior Lecturer, Faculty of Business and Management sciences, University of Nairobi

## Introduction

At the present time a key research agenda is the growing need to examine the multidimensional nature of service quality and the antecedents and consequences of satisfaction (Bezerra & Gomes, 2016). There is general agreement that high levels of service quality can allow a brand to differentiate itself from competition and command high prices in the market (Parasuraman, Zeithaml & Berry, 1988; Caruana, Money & Berthon, 2000; Abdel Fattah, Dahleez, Darwazeh & Al Alawi, 2021). The emergence of a service economy has brought about a recognition of the customer as co-producer and co-creator in the experience economy (Vargo & Lusch, 2004; Schembri, 2009). What this means is that customers have shifted their perspectives and now look beyond the functional components of brands and instead focus on experience (Brakus, Schmitt & Zarantonello, 2009; Nysveen, Pedersen & Skard, 2013). In today's evolving business environment everything and everyone is a brand and the experiential meaning of consumption is of key importance to users and practitioners. For service firms that wish to be or remain successful there is even greater impetus to invest in their brands to be their most valuable and strategic asset in order to generate value for a multiplicity of stakeholders (Aaker, 1991; Veloutsou & Guzmán, 2017) such as those found at airports. It is therefore increasingly relevant to examine service quality especially in sophisticated and complex service environments such as those prevailing in air transport services.

Customer satisfaction is an integral part of every business largely because it is a key factor in helping businesses and in particular airports identify clues to enhance the service experience. Conversely, a brand can provide a means to differentiate and provide competitive advantages for products and services (Aaker, 1991; Keller, 1993) while acting as a mechanism for engaging consumers and

producers in mutually beneficial long-term relationships; which is very similar to the overall goal of service quality enhancement. Overall, a majority of research in services continues to examine the relationship between service quality and satisfaction. It is critically important for decision makers to keep up with this important topic. However, the key challenge for managers remains obtaining a clear understanding of how service quality perceptions and customer satisfaction judgements interact. Added to that is the need to be aware of the influence of brand experience in an increasingly prominent and competitive service marketing environment in less well-developed economies (Khan & Rahman, 2015; Bapat, 2017).

Recognizing the need and suggestions from previous research coupled with the paucity of research on examining the antecedents of satisfaction, this study narrows the gap in literature by empirically examining the relationships between perceived service quality, satisfaction and brand experience. In doing so this study provides much needed insights into an under-researched and emerging market environment of the airport user experience (Bellizzi, Eboli & Mazzulla, 2020). Such an endeavor is essential to enriching the practice of airport marketing and management. This study therefore aims to answer the broad research question: What is the role of brand experience in the relationship between perceived service quality and satisfaction?

The approach adopted in this paper is to commence with an examination of the relevant literature including deriving the hypotheses. This is followed by presenting a research model. The empirical study and its findings are reported and discussed. Implications for theory and managerial practice are explained. And finally, the limitation and areas for further research are then elucidated.

## Literature and Hypotheses

### Perceived service quality and satisfaction

Service quality is recognized as a comparison to excellence in service encounters by customers (Parasuraman et al., 1988; Cronin & Taylor, 1992). Support for this position emerges from Bitner and Hubbert (1994) definition of service quality as the relative superiority of the organization and its services in the eyes of the customer. Service quality is distinct from customer satisfaction in several unique ways. Among them that satisfaction judgements can arise from non-quality issues such as perceptions of fairness or needs and that unlike quality perceptions satisfaction does not require experience with the service provider (Rust & Oliver, 1994, Taylor & Baker, 1994). Moreover, service quality has been described as an attitude while satisfaction is viewed as a judgment (Caruana et al., 2000; Abdel Fattah et al., 2021).

Under the disconfirmation of expectations paradigm satisfaction is a function of the degree to which performance expectation is confirmed through perceived performance (Oliver, 1980; Oliver, 1997). However, the nature of service quality and satisfaction relationship continues to perplex scholars and remains the subject of persistent debate. Service quality (SERVQUAL) is defined as the gap between customers' perception of service and actual service experienced (Parasuraman et al., 1988). However, the SERVQUAL scale has been criticized for problems in actually measuring perceived quality. As a consequence, Cronin and Taylor (1992) propose the performance only scale (SERVPERF) as a means to measure service quality. Both SERVQUAL and SERVPERF have been applied in numerous industries to measure the service quality and are composed of the five attributes of assurance, empathy, reliability, responsiveness, and tangibles. Consumer satisfaction is widely accepted as a summary judgement by the consumer upon the

evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service upon consumption (Tse & Wilton, 1988; Oliver, 2015).

An abundance of empirical studies examines the relationship between service quality and satisfaction. Specifically, passenger satisfaction is recognized as a key factor in helping airports identify clues to enhance their service offerings and remain competitive (Ong, Lee & Ramayah, 2018). An early investigation by Bitner (1990) examined air travelers' service perceptions by applying a model where satisfaction was the antecedent of service quality against the outcome of behavioral intentions. Fodness and Murray (2007) examined airport service quality as an antecedent of the decision to select an airport among domestic frequent fliers. Their study confirmed the significance of passenger service quality that includes functional, interaction and diversion. The relationship between airline service quality and satisfaction has been found to be highly significantly related (Rahim, 2016). Hong, Choi and Chae (2020) observed that perceptions of airport service quality differed between service providers and users. Other studies have examined the components of air transport experience: airport departure, airline, and airport arrival service (Munoz, Laniado & Cordoba, 2019). The relationship between service quality, passenger satisfaction and behavioral intentions including airport reuse and destination revisit has been found to be significant (Prentice & Kadan, 2019). On the basis of these evidences the study proposes the first null hypothesis thus:

*Hypothesis 1: Perceived service quality does not influence satisfaction for passengers*

### **Service Quality and Brand Experience**

Brand experiences occur when consumers associate with a brand and this includes whenever they are searching for, shopping for

or consuming goods and services (Holbrook, 2000). Tracing back from the holistic brand experience construct proposed by among others Pine, Pine and Gilmore (1999) and Schmitt (1999); Brakus et al. (2009) conceptualized brand experience as subjective, internal consumer responses and behavioral responses inspired by brand related stimuli that are part of a brand's design and identity, packaging, communications and environments. The four components of brand experience include sensorial, affective, behavioral and intellectual. Sensory experience refers to visual, auditory and tactile stimulations provided by brands. Affective brand experience includes moods and emotions; intellectual includes analytical and imaginative thinking; and behavioral includes actions, bodily and interactive experiences (Brakus et al., 2009; Trudeau & Shobeiri, 2016). Brand experience occurs in a continuum where they can in strength and the consequences could be extraordinary or mundane (Carù & Cova, 2003).

Brand experience is a nascent paradigm that is gaining prominence as core component of marketing practice (Khan & Rahman, 2015; Bapat, 2017; Beig & Nika, 2019). The construct has been tested in diverse settings including event marketing (Zarantonello & Schmitt, 2013), mobile phone services and applications (Nysveen et al., 2013; Kim & Yu, 2016), hotel and restaurant services (Ong, Lee & Ramayah, 2018), online banking (Khan, Rahman & Fatma, 2016); financial services (Bapat, 2017); airline brand equity and brand satisfaction (Lin, 2015), and destination marketing (Barnes, Mattsson, & Sorensen; 2014). Empirical evidence suggests that brand experience predicts brand loyalty (Brakus et al. 2009; Iglesias, Singh & Batista-Foguet, 2011). Emerging evidence also suggests that the new relational component of brand experience is of vital importance in the marketing of services (Nysveen et al., 2013; Cleff, Lin & Walter, 2014; Bapat, 2017). However, literature offers differing views of the antecedents and

consequences of brand experience which suggests perceived quality of brand or product or service attributes is a component of brand perception (Khan & Rahman, 2015; Veloutsou & Guzmán, 2017). Literature also suggests that there are a variety of applications of the brand experience scale and it also appears less well tested in the context of less well-developed countries.

Prior literature also suggests that satisfaction is considered a mediator between branding constructs and loyalty. For example, Osman and Sentosa (2013) found that satisfaction mediated the relationship between service quality and visitor loyalty in the rural tourism sector. On the other hand Abdel Fattah et al. (2021) study in the health insurance sector customer found that perceived value partially mediates the relationship between service quality and satisfaction. Other studies view satisfaction as an outcome of brand experience (Brakus et al., 2009; Barnes et al., 2014; Nysveen et al., 2013) and observe that brand experience is likely to result in further evaluation and thus affect satisfaction and loyalty indirectly. At the same time, these studies demonstrate empirically that brand experience has approximately equal direct and indirect effects on loyalty through satisfaction. A scrutiny of prior research suggests that brand experience could present an important outcome to service quality because it is in the interaction with the services of a provider that a consumer encounters the brand. At the same time there is ample evidence that satisfaction is a key outcome of service quality. On the basis of these considerations we anticipate that brand experience plays a role in hypothesis one (H1). Thus, two null hypotheses are derived:

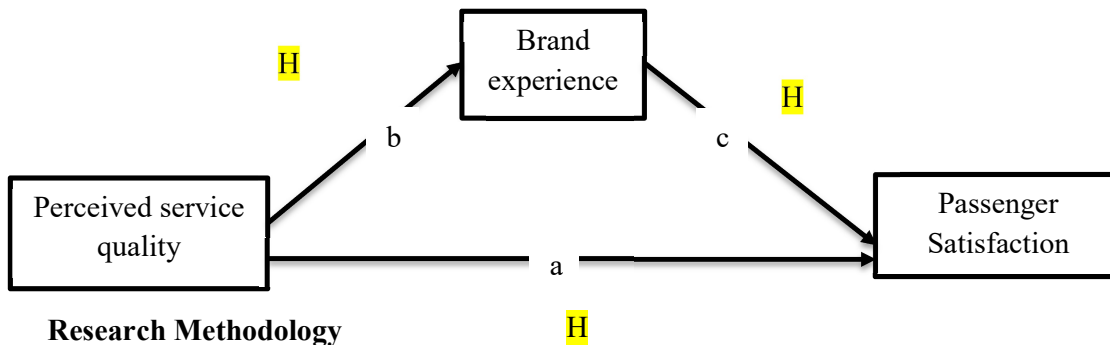
*Hypothesis 2: Service quality does not influence brand experience for passengers*

*Hypothesis 3: Brand experience does not mediate the relationship between service quality and satisfaction for passengers*

Based on the literature review an initial conceptual model is derived. In the model two routes between service quality and satisfaction are proposed. First, a direct effect *a* of service quality on satisfaction is outlined in hypothesis 1 (H1). A second route *b* hypothesizes a direct

effect of service quality on brand experience (H2). Third, the indirect route *c* between service quality and satisfaction through brand experience (H3). The research model is presented in Figure 1.

**Figure 1. Research model**



**Research Methodology**

**Research design**

The design of the study was quantitative cross-sectional and descriptive, meaning it was aimed at deriving an explanation of business elements from a considered subset of the larger population (Hair, Money, Samouel & Page, 2007). In line with the research objective this study sought primary data from respondents within the place of consumption which was the airport departure boarding areas. This methodology allowed the researcher to obtain insights into the phenomena under scrutiny in as near to real time conditions as possible. The scales applied were adopted from prior studies and assessed for robustness hence were considered appropriate for the investigation. The assistance of a marketing expert and marketing professors validated the use of the measures adopted for the constructs.

**Data collection**

In order to determine the sample size, the Krejcie and Morgan (1970) table with a

confidence interval of 0.05 was used. According to the Kenya National Bureau of

Statistics (KNBS, 2019) the total number of departing international passengers in 2018 at Jomo Kenyatta International Airport (JKIA) was 2,604,000 meaning a sample size of 384. Departing passengers from Mombasa International Airport (MIA) was 711,000 resulting in a sample size of 382. Therefore, the total sample size was 786.

The Krejcie and Morgan formula is outlined as:

$$s = \frac{X^2 * NP(1-P)}{(X^2 * P*(1-P) + d^2(N-1)}$$

Where: *s* = required sample size; *X*<sup>2</sup> = Chi-square for the specified confidence level at 1 degree of freedom (3.841); *N*= population size; *P* = population proportion; *d* = degree of accuracy of 0.05

**Table 1.** Sample size

Airport	Population	Sample
JKIA	2,604,000	384
MIA	711,000	382

The sample was collected at two international airports in Kenya; one in Nairobi and another in Mombasa. The sample consisted of departing international air travellers. Random sampling techniques were applied. A total of 652 questionnaires were received from 700 respondents who were approached to participate in the survey. 83 incomplete responses; that is with more than 15 percent missing data (Hair, Black, Babin & Anderson, 2019) were removed. Consequently, a total of 569 usable responses were obtained giving a response rate of 81.2 percent. Primary data was collected through self-administered questionnaires from 18 January to May 30, 2021.

### ***Procedure***

A pretest of the questionnaire was conducted before the actual survey to allow a refinement of the measurement scales while checking for ambiguity. The pretest was conducted using convenience sampling techniques of frequent air travellers located at the airport premier lounge. These respondents were not part of the final sample. A total of 39 complete responses were received in this exercise. Upon review of the findings it was evaluated that the wording and clarity of the instrument was satisfactory. A structured closed-ended questionnaire was deployed to obtain the primary data. The questionnaire comprised of four sections. Section A was made up of questions on demographic information namely age, education, gender, level of education, nationality and frequency of air travel as a proxy of frequency of use of airport services. Section B required respondents to provide responses to their perceptions of service

quality. Section C examined brand experience perceptions and part D satisfaction.

Trained assistants identified respondents using the random number table. Respondents were approached while in the airport departure area. Before commencing the survey respondents were screened to ensure that they were above the age of 18 years and that they were comfortable in taking the survey in the English language. The study was not incentivized and participation was voluntary. The questionnaires were completed by respondents and clarifications were provided whenever required.

### **Data analysis**

The SERVPERF scale adopted from Cronin and Taylor (1992) inquired about perceived service quality under the dimensions of reliability, responsiveness, empathy, assurance and tangibles. Brand experience was measured by adopting the twelve statements related to the four dimensions of sensorial, affective, behavioral and intellectual constructs of the brand experience scale (Brakus et al., 2009). In line with Iglesias et al. (2011) the items in the brand experience scale were positively worded. Passenger satisfaction included an assessment of fulfillment (“I am satisfied by the airport services”) and an assessment of willingness to recommend (“I would recommend this airport to a friend or colleague”). This was adopted from Tse and Wilton (1988), Oliver (1997) and Kim, Vogt and Knutson (2015). The responses were rated against 5-point Likert scale from 1- not at all to 5- very large extent; except for passenger satisfaction that was measured on a ten-point scale.

**Sample Characteristics**

The sample frame was departing international air travellers from Kenya. The selected sample was considered to be relevant to answering the research question because the airport context represents a diverse and captive audience in a

highly commercialized and controlled environment where respondents have considerably more free-time (Fodness & Murray, 2007). Table 2 presents a detailed summary of the sample demographic information.

**Table 2.** Sample characteristics

Demographic variable		Frequency	Percentage %
Gender	Male	356	62.6
	Female	213	37.4
Nationality	Kenyan	297	52.2
	Other	272	47.8
Age (years)	18 to 24	64	11.2
	25 to 34	256	45.0
	35 to 44	132	23.2
	≥ 45	117	20.6
Level of education	College	195	34.3
	Undergraduate degree	220	38.7
	Master’s degree	154	27.1
Reason for travel	Visiting friends and relatives	66	11.6
	Business	92	16.2
	Education	122	21.4
	Tourism	45	7.9
	Employment	244	42.9
Occupational status	Full-time employee	322	56.6
	Self-employed	18	3.2
	Part-time employee	125	22
	Unemployed	104	18.3
How often do you travel by air in a year?	1 - 3 times	282	49.6
	4 to 6 times	160	28.1
	7 or more times	127	22.3



The data consisted of Kenya nationals (52.2%), male (62.6%), ages between 24 and 35 years (45%). Majority of the respondents had an undergraduate degree and above (65.8%); the main reasons for travel was for employment (42.9%) and education (21.2%). Further, a majority of the respondents had used air transport between one to three times in the preceding year (49.6%).

As outlined in Figure 1 the goal of the study is to explain the effects of perceived service quality (PSSQ) and passenger satisfaction (CUSA) on brand experience (BEXPR). Partial least squares structural equation modeling (PLS-SEM) is appealing for testing of

hypothesized relationships while taking a prediction focus in the model estimation; further it allows the researcher to overcome the apparent dichotomy between explanation and prediction which is required to derive managerial implications (Sarstedt, Ringle & Hair, 2017). This study employed SmartPLS statistical software (Ringle, Wende & Becker, 2015) to conduct the data analysis. The analysis commenced with measurement model assessment, an assessment of discriminant validity, followed by indicator weights and significance testing and finally hypotheses testing.

**Table 3.** Measurement model assessment

Latent variable	Indicators	Mean	SD	Kurtosis	Skewness	Loading	P <sub>A</sub>	CA	P <sub>C</sub>	AVE
Perceived service quality (adapted from Parasuraman et al. (1988); Cronin & Taylor (1992))										
<b>PSSQ</b>	RELI1	4.091	0.94	0.936	-1.047	0.742	0.964	0.962	0.966	0.563
	RELI2	3.71	1.332	-0.357	-0.881	0.612				
	RELI3	4.081	1.027	0.974	-1.167	0.773				
	RELI4	4.049	1.005	0.37	-0.953	0.728				
	RELI5	2.967	1.565	-1.523	-0.005	0.532				
	RESP1	3.699	1.301	-0.498	-0.768	0.712				
	RESP2	4.011	1.07	0.302	-0.987	0.738				
	RESP3	4.021	1.087	0.531	-1.072	0.795				
	RESP4	3.91	1.19	0.243	-1.036	0.782				
	ASRC1	4.112	1	0.629	-1.073	0.818				
	ASRC2	4.343	0.861	2.685	-1.549	0.672				
	ASRC3	4.069	1.072	0.948	-1.2	0.748				
	ASRC4	3.74	1.307	-0.452	-0.818	0.718				
	EMPY1	3.884	1.192	-0.062	-0.924	0.755				
EMPY2	3.972	1.078	0.314	-0.948	0.801					

EMPY3	3.884	1.119	-0.001	-0.849	0.814
EMPY4	3.912	1.114	0.159	-0.913	0.812
EMPY5	3.995	1.028	0.608	-0.993	0.778
TANG1	3.842	1.112	-0.061	-0.791	0.699
TANG2	3.78	1.179	-0.287	-0.76	0.811
TANG3	4.098	0.994	0.511	-1.005	0.756
TANG4	3.856	1.159	-0.208	-0.817	0.836

Brand experience scale adapted from Brakus et al. (2009)

<b>BEXPR</b>	SENS1	3.425	1.227	-1.043	-0.219	0.800	0.95	0.932	0.942	0.586
							2			
	SENS2	3.381	1.24	-1.01	-0.243	0.816				
	SENS3	2.903	1.318	-1.104	0.230	0.767				
	AFFECT1	3.002	1.35	-1.162	0.035	0.870				
	AFFECT2	2.717	1.365	-1.094	0.300	0.786				
	AFFECT3	2.62	1.367	-1.01	0.402	0.840				
	BEHAV1	2.32	1.394	-0.789	0.712	0.773				
	BEHAV2	2.323	1.369	-0.754	0.688	0.832				
	BEHAV3	2.26	1.346	-0.646	0.749	0.723				
	INTELLE1	2.921	1.404	-1.25	0.076	0.793				
	INTELLE2	2.793	1.4	-1.211	0.261	0.733				
	INTELLE3	3.808	2.134	1.537	1.184	0.273				

Passenger satisfaction adapted from Oliver (1980; 1997)

<b>CUSA</b>	CS	7.533	2.037	0.218	-0.805	0.885	0.69	0.689	0.865	0.762
							5			
	ITR	4.23	0.995	1.461	-1.366	0.861				

Where: CA: Cronbach's alpha  $\leq 0.70$ ; P<sub>A</sub>: Construct reliability; P<sub>C</sub>: composite reliability; AVE: average variance extracted  $\leq 0.50$

Table 3 shows the results of the measurement model assessment. Evaluation of the measurement model was conducted by deploying standard evaluation criteria as per

Hair, Hult, Ringle and Sarstedt (2016) and Sarstedt et al. (2017). The outer loadings for all the indicators are above 0.70 except for RELI1, RELI5, ASRC2, TANG1, and INTELLE3.

Convergent validity was assessed through computing the average variance extracted (AVE) whereby all constructs surpassed the threshold of 0.5. Reliability as measured by Cronbach’s alpha which met the threshold of 0.6 (Cho, 2016). These findings suggested that the research model largely met established measures of validity and reliability for the variables under scrutiny.

Discriminant validity was tested using the Heterotrait-Monotrait ratio (HTMT) criterion. Applying bootstrapping procedure with 10,000 samples and the no sign change option and found that none of the bias corrected and accelerated (Bca) confidence intervals included the conservative threshold of 0.85 (Franke & Sarstedt, 2019). The results presented in Table 4 illustrates that discriminant validity was not an issue.

**Table 4.** Assessment of discriminant validity using HTMT

	BEXPR	CUSA	PSSQ
BEXPR			
CUSA	0.461 [0.369;0.547]		
PSSQ	0.373 [0.292;0.442]	0.687 [0.594;0.766]	

Note: HTMT: Heterotrait-Monotrait criterion; BCa: Bias-corrected and accelerated. Parentheses indicate the lower and upper bounds of the 95% BCa confidence intervals

Indicator weights and significance testing

**Table 5:** Indicator weights and significance testing

Latent variable	Indicators	Outer weights / Outer loadings	95% Bca Confidence interval	95% Bca Confidence interval	T-values	Significance (p<0.05)	VIF
<b>PSSQ</b>	RELI1	0.068 (0.742)	0.061	0.076	18.454	0.01	2.955
	RELI2	0.049 (0.612)	0.039	0.058	9.959	0.01	1.754
	RELI3	0.057 (0.773)	0.049	0.064	15.508	0.01	3.009
	RELI4	0.062 (0.728)	0.054	0.069	16.157	0.01	2.697
	RELI5	0.044 (0.532)	0.035	0.054	9.098	0.01	1.407
	RESP1	0.058 (0.712)	0.051	0.064	17.114	0.01	2.207
	RESP2	0.058	0.051	0.065	15.760	0.01	2.57

		(0.738)					
	RESP3	0.067 (0.795)	0.059	0.074	18.443	0.01	3.337
	RESP4	0.062 (0.782)	0.055	0.069	17.563	0.01	3.041
	ASRC1	0.067 (0.818)	0.06	0.074	18.703	0.01	3.448
	ASRC2	0.063 (0.672)	0.053	0.073	12.795	0.01	2.122
	ASRC3	0.055 (0.748)	0.047	0.063	14.311	0.01	2.498
	ASRC4	0.059 (0.718)	0.052	0.067	15.203	0.01	2.321
	EMPY1	0.056 (0.755)	0.048	0.064	14.448	0.01	2.856
	EMPY2	0.063 (0.801)	0.056	0.07	17.046	0.01	4.330
	EMPY3	0.062 (0.814)	0.055	0.068	18.846	0.01	4.928
	EMPY4	0.064 (0.812)	0.058	0.071	19.558	0.01	4.766
	EMPY5	0.060 (0.778)	0.052	0.067	14.907	0.01	3.147
	TANG1	0.063 (0.699)	0.056	0.072	16.274	0.01	3.239
	TANG2	0.065 (0.811)	0.059	0.072	19.449	0.01	6.073
	TANG3	0.060 (0.756)	0.053	0.068	15.883	0.01	3.513
	TANG4	0.069 (0.836)	0.063	0.076	21.039	0.01	5.798
<b>BEXPR</b>	SENS1	0.143 (0.800)	0.126	0.166	13.948	0.01	8.685
	SENS2	0.138 (0.816)	0.121	0.16	14.052	0.01	9.429
	SENS3	0.082 (0.767)	0.064	0.097	9.687	0.01	2.941

	AFFECT 1	0.129 (0.870)	0.115	0.144	17.359	0.01	3.837
	AFFECT 2	0.087 (0.786)	0.068	0.102	10.316	0.01	2.962
	AFFECT 3	0.140 (0.840)	0.124	0.160	15.220	0.01	3.384
	BEHAV1	0.095 (0.773)	0.076	0.112	10.366	0.01	3.712
	BEHAV2	0.124 (0.832)	0.109	0.142	14.750	0.01	3.953
	BEHAV3	0.080 (0.723)	0.059	0.097	8.417	0.01	2.410
	INTELLE 1	0.127 (0.793)	0.112	0.145	15.175	0.01	3.179
	INTELLE 2	0.105 (0.733)	0.087	0.123	11.488	0.01	3.234
	INTELLE 3	0.002 (0.273)	-0.033	0.033	0.125	0.90	1.214
<b>CUSA</b>	CS	0.597 (0.885)	0.553	0.649	24.650	0.01	1.382
	ITR	0.547 (0.861)	0.500	0.594	22.885	0.01	1.382

Table 5 outlines the outcome of the assessment of the formative measurement model which included an examination of the convergent validity, indicator collinearity and statistical significance and relevance of the indicator weights. All indicators met the collinearity threshold of 5 except for TANG2, TANG4, SENSE1 and SENSE2. This is indicative of collinearity among the elements of perceived service quality (independent variable) and brand experience (mediating variable). Literature suggests that sensory and affective dimensions of the brand experience scale have been found to have especially large effects with cognitive and behavioral and relational components to a lesser extent (Cleff et al.,

2014). Other studies found the sensory dimension to be insignificant in the relationship between brand experience and brand loyalty (Kim & Ah Yu, 2017).

Assessing the statistical significance using bias-corrected and accelerated BCa bootstrapping with 10,000 samples at 95% confidence interval from the original data with replacement suggested that all the indicators were significant except INTELLE3. Similarly, all indicator weights were assessed for relevance and found to be positive with the exception of INTELLE3 (0.002) with  $p=0.90$ . This finding suggested that the cognitive component namely whether and the airport brand makes one think was not statistically significant.

**Hypothesis testing**

Testing the three study hypotheses proceeded with SmartPLS version 3.3.3 software (Ringle, Wende & Becker, 2015). A path weighting with maximum 300 iterations and a stop criterion of  $10^{-7}$  ( $=1.0E-07$ ) in the partial least squares structural equation modelling (PLS-SEM) algorithm settings was executed. The predictive capabilities of the model were assessed using coefficient of determination ( $R^2$ ), cross-validated redundancy ( $Q^2$ ) and the path coefficients.

Evaluation of the measurement model through standard evaluation criteria suggested by Sarstedt et al. (2017) concluded that the relationship between perceived service quality and passenger satisfaction ( $R^2=0.349$ ) was significant and substantial. Perceived service quality and brand experience ( $R^2=0.135$ ) was significant and moderate. Blindfolding procedure with an omission distance of 7 was deployed and the outcome of  $Q^2$  values (Geisser, 1974; Stone, 1974) which were all greater than zero indicating that the model's predictive accuracy was acceptable.

**Figure 2. Relationship between perceived service quality, brand experience and customer satisfaction**

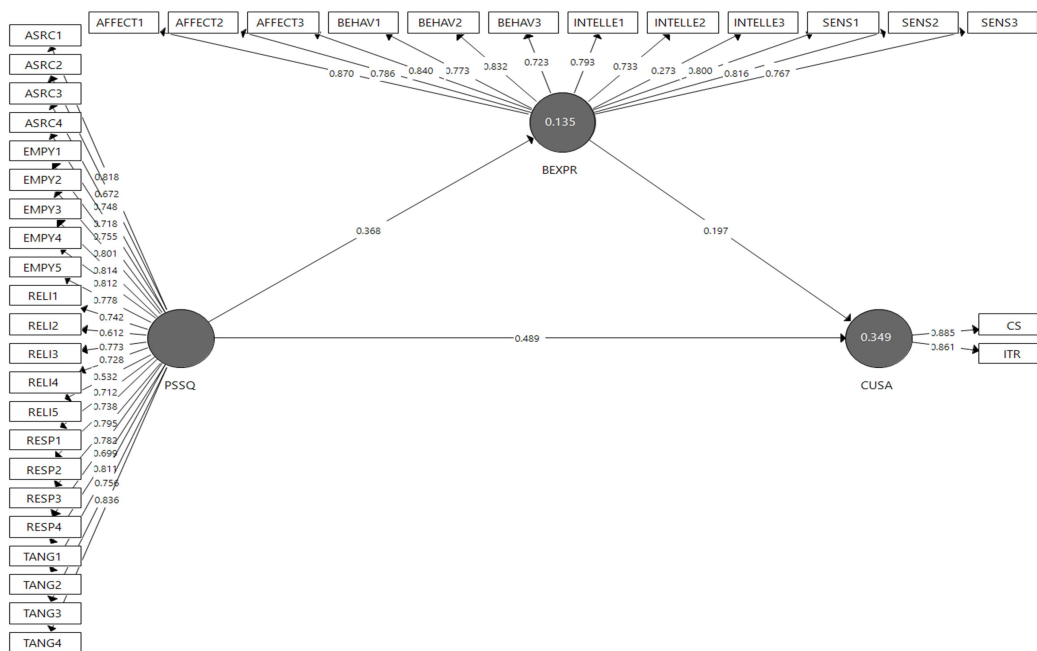


Figure 2 illustrates the results from testing the significance of the relationship between the variables in the study. Specifically, PSSQ ( $\beta=0.489$ ), and BEXPR ( $\beta=0.197$ ) both have

statistically significant and positive effects on CUSA. Similarly, PSSQ ( $\beta=0.368$ ) has a significant and positive effect on BEXPR; at  $p<0.01$ .

**Table 6. Hypotheses testing results**

		B	R <sup>2</sup>	Q <sup>2</sup>	F <sup>2</sup>	T statistics	p values	Interpretation
H1	PSSQ -> CUSA	0.489	0.349**	0.256	0.317	15.948	0.01	H1 supported
H2	PSSQ -> BEXPR	0.368	0.135**	0.075	0.156	4.965	0.01	H2 supported

Note: p<0.05; \*\*p<0.01

Table 6 illustrates the summary of the hypothesis testing. The results reveal that the relationship between perceived service quality and passenger satisfaction was significant (R<sup>2</sup>=0.349). The relationship between perceived service quality and brand experience was also found to be significant (R<sup>2</sup>=0.135); at p>0.01. Therefore, both H1 and H2 are supported.

### Mediation analysis

The third hypothesis required the researcher to test whether brand experience (BEXPR)

mediates the relationship between service quality (PSSQ) and passenger satisfaction (CUSA). Baron and Kenny (1986); Mackinnon, Fairchild and Fritz (2007) explain mediation as transpiring when an association between an independent variable and a dependent variable is affected by an additional variable. The analysis of a mediation model starts with assessing the global fit of the model (Nitzl, Roldan & Cepeda, 2016) by examining the standardized root mean square residual (SRMR) which was 0.061 which is less than the threshold of 0.08 (Henseler et al., 2014). Therefore, the PLS path model provided a sufficient fit for the empirical data.

**Table 7.** Mediation analysis

		B	R <sup>2</sup>	T statistic	p-value
Direct effect	PSSQ -> CUSA	0.489	0.349	15.948	0.01
Indirect effect	PSSQ -> BEXPR -> CUSA	0.197	0.072	4.726	0.01

Table 7 illustrates that after applying the mediation analysis the results revealed an indirect effect of PSSQ->BEXPR->CUSA with a value of R<sup>2</sup>=0.072 at p>0.01. H<sub>3</sub> was significant at p>0.01 therefore the null hypothesis was rejected. There was statistical evidence that brand experience mediated the relationship between perceived service quality

and passenger satisfaction. In support of these findings the absolute value of the standardized total effect c' = a x b + c was greater than 0.2 (Hair et al., 2016). As all the effects are positive the mediation was classified as complementary partial mediation (Nitzl et al. 2016).

### Discussion

The first hypothesis H1 assumed that service quality and passenger satisfaction were

positively related. The results show that perceived service quality strong positive effect on satisfaction ( $R^2=0.349$ ,  $p>0.01$ ). Similar results have been reported in other contexts for instance Rahim (2016) in the Nigeria airline service; Prentice and Kadan (2019) in the Australian airport services context; Hong et al. (2020) among airport service providers and airport users in the USA and Munoz et al. (2019) in Colombia.

Testing the second hypothesis H2 revealed that service quality ( $R^2=0.135$ ,  $p>0.01$ ) had a moderate and positive effect on brand experience. This finding contradicts prior research. For example, Brakus et al. (2009) found that the relationship between brand experiences and loyalty was stronger than the one between brand experiences and satisfaction. On the other hand, Iglesias et al. (2011) observed that the affective commitment mediates the relationship between brand experience and brand loyalty.

The researchers finally tested the hypothesis that brand experience mediates the relationship between service quality and passenger satisfaction H3. The results showed that there was an indirect effect of brand experience in the relationship between service quality and satisfaction ( $R^2=0.072$ ,  $p>0.01$ ). Further testing of this relationship revealed a complementary partial mediation effect. This finding stands in contrast to prior literature that suggests satisfaction is a mediator of brand experience (Osman & Sentosa, 2013). Other studies revealed that brand experience is a stronger moderator than brand attitude in the relationship between event marketing and brand equity (Zarantonello & Schmitt, 2013). Furthermore, some studies have found differences between affective, behavioral, cognitive and relational experience on brand loyalty (Kim & Yu, 2017). Moreover, Chen-Yu, Cho and Kincaide (2016) revealed that brand effect which included a general attitude towards the brand; mediated the relationship

between brand experience and brand trust. This observation highlights the importance of examining variables other than service quality in building satisfaction which is well documented in literature (Khan et al., 2016; Bapat, 2017; Ong et al., 2018, Abdel Fattah et al., 2021).

The findings of the current study partly agree with those of Knoll, Matthes, Munch and Ostermann (2017) who examined the moderating effect of brand experience in the relationship between transfer effects and celebrity liking. Prior studies do not appear to account for the possibility that service quality positively influences brand experience. The results of the current study evidence a direct relationship between satisfaction and brand experience which partly supports the findings of Brakus et al. (2009).

## Conclusion and implications

The goal of this study was to examine the effects of service quality on customer satisfaction and the mediating influence of brand experience. The sample was international air transport users in Kenya. Empirical results obtained using PLS-SEM techniques exposed that perceived airport service quality has a positive impact on satisfaction. This study also revealed that brand experience mediates the relationship between perceived airport service quality and satisfaction. These findings support the notion that service quality is elusive and difficult to define. This study also supports the proposition that higher perceived service quality leads to higher levels of satisfaction. This study therefore concludes that there is a positive interactional effect between perceived service quality, satisfaction and brand experience. This was a unique finding that offers stimulating research avenues in the arena of airport services. The findings from this study provide support for the inclusion of brand experience in the assessment of the antecedents and consequences of the relationship between service quality and overall satisfaction. This



conclusion forms a unique contribution to knowledge as there is scanty evidence of studies that have exposed and tested these relationships in developing country contexts and more so in the airport service context.

### ***Managerial implications***

The results arising from this study provide support for the inclusion of brand experience in the assessment of the antecedents and consequences of the relationship between service quality and passenger satisfaction. Airport managers are in constant search of ways to measure service quality and its outcomes in this complex service setting. The results of this study provide four important managerial implications. First, this study provides empirical evidence that supports the inclusion of brand experience among outcomes of service quality. Meaning that airport decision makers and marketing practitioners need to understand that to develop and sustain passenger satisfaction, their service quality improvement efforts there is need to integrate a brand experience mindset. Managers could practice broad-based communication to users and apportion budgetary resources to training staff on ways to better communicate to users. Second, managers could develop broader ways to assess the effectiveness of short-term passenger satisfaction levels and longer-term service quality attitudes. This may include instituting regular customer surveys. Third, managers need to be aware of the disruption in consumer behaviors due to hastened adoption of new technologies that have been spurred by the Coronavirus pandemic.

Marketing managers could adjust airport brand experiences using the four components namely sensorial, affective, behavioral and intellectual. To enhance sensorial component of brand experience, managers to invest in ways to improve sensory stimulation by way of sight and sound. This could include providing distinctive high impact multimedia, and multichannel advertisements throughout all the

stages of the airport passenger journey. This study revealed that the intellectual component of brand experience had a lesser impact on passengers which is partly due to the fact that airport services largely provide functional benefits. Nevertheless, the intellectual component could be enhanced by delivering thought provoking imagery for the airport brand. The affective dimension could be enhanced through appealing to passengers' inner feelings, moods and emotions. This can be achieved through sponsoring high-profile national sporting events such as world-leading Kenyan athletics thereby creating further brand association. The behavioral dimension could be enhanced by establishing connections with lifestyles relating air travellers to tourism of exotic destinations. Fourth, managers in adjacent sectors including hospitality, retail, healthcare and travel and tourism could apply the results of the study to enhance their service quality, satisfaction and brand experience initiatives.

### ***Limitations and further research***

This exploratory study has several limitations which also constitute areas for further inquiry. First, the responses to the questionnaires were self-reported which means that it is likely that the chosen methodology was susceptible to common method and social desirability bias. Secondly, high VIF values for the sensory component of brand experience were observed which is not surprising given that prior research indicates that sensory experiences also improves brand recognition and image which subsequently leads to long lasting memories (Keller, 1993; Brakus et al. 2009). To overcome such a limitation would necessitate removing one or more indicators which would significantly alter the operational definition of the construct. Future research could extend the analysis of this dataset. Third, the study did not assess the moderating effect of passenger socio-demographic characteristics such as gender, occupational status, trip purpose or

frequency of travel on the examined relationships. Finally, considering its limited research in Kenya among international departing passengers, the findings can only be generalized to this user segment and geographical location. This study offers a contribution literature and a managerial anchor for future studies to address the limitations arising.

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