



Mediating Role of Perceived Health Risk on Customer Experience and Customer Satisfaction: Evidence from the Airline Industry in India During COVID-19

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Abstract

With a steep decrease in the rate of COVID-19 infection, and a corresponding increase in the number of vaccinated people, countries have begun to re- open borders to foreign travellers, triggering the resumption of aviation services. However, people are still apprehensive, and are avoiding travel, hindering air travel to get back to the pre-COVID era. This paper determines the experience of air travellers' during the pandemic applying EXQ model. Additionally, it investigates the role of perceived health risk as a mediating variable in an extended EXQ model. We collected data from a sample of 122 air travelers during the pandemic and analyzed it using IBM SPSS. The outcome of this study sheds light on the experiences of pandemic-affected airline passengers, revealing in the process, factors that passengers value much more now than ever before. The findings confirm that perceived health risk significantly mediates the relationship between customer experience and satisfaction.

Keywords Airlines · Customer experience · EXQ model · Perceived health risk · Pandemic · Industry competitiveness

JEL Classification M31

Introduction

COVID-19 ever since its outbreak in 2019–20, has affected every operation across geographies. Governments across the world were compelled to close international borders, and impose stringent country-wide lockdowns, all in a bid to contain the spread of the rampaging virus. Due to these drastic measures, businesses and supply chains were severely impacted, with the airline industry being no exception (Pallini, 2020). The world virtually came to a halt, particularly in the early days of the pandemic, with skyrocketing rates of

infection, loss of human life, mandatory quarantine requirements, and severe restrictions on social and professional events demotivating people to travel (Choi et al., 2020).

Even though India stands third in the domestic civil aviation market globally (IATA Report, 2021; Khitha et al., 2021) low-profit margins, high operating costs, heavy tax burdens, and aggressive price wars make it one of the most challenging aviation markets in the world (Saranga & Nagpal, 2016). The COVID-19 outbreak significantly added to the sector's financial woes that were already under strain (Agrawal, 2021). In a swift response to the sudden spread of pandemic across India, based on government directives in the form of country-wide lockdown, the Directorate General of Civil Aviation suspended its scheduled international and domestic passenger flights with immediate effect from March 22 and March 24, 2020, respectively. According to an IATA Report (2021), this discontinuation of operations led to a 43% decline in passenger traffic. Now that the worse has passed, and India as a country has again opened up its economy with record number of vaccinated citizens, life's limping back to normalcy, with the airlines industry too recovering from the severe turbulence (Daon et al., 2020). The pandemic pushed every airline to develop fast-paced

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innovative approaches with process and procedure changes to remain competitive in the market (Amankwah-Amoah, 2020; Momaya, 2019).

Given this backdrop, this study examines the relevance of customer experience among air travellers during the pandemic. It also investigates the role of perceived health risk (PHR) in an extended EXQ model. We study EXQ (Customer Experience Quality), proposed by Klaus and Maklan (2013) in the context of air travellers (airlines being both hedonic and utilitarian product) and more specifically about their experience during the ongoing pandemic.

It may be noted that during the pandemic, one of the key challenges for the airline industry was customer management in terms of their experience and satisfaction levels (Monmousseau et al., 2020). Customer experience in various related services does play a decisive role in overall customer satisfaction, which significantly contributes to the intention to reuse a service per se (Park et al., 2019). Unsatisfied passengers would not only discontinue using specific airline services again in the future, but may also spread negative word of mouth (WoM), harming the company's credibility and image in the process (Namukasa, 2013). Thus, during the pandemic, meeting the customers' needs and developing new experiences could possibly create a new revenue stream for the airlines, and boost the confidence of potential travellers (Ullah et al., 2019). Hence, the relevance of providing a great experience to the customers is the need of the hour for the service sector, since it significantly influences satisfaction, loyalty and word-of-mouth (Klaus & Maklan, 2013; Scully et al., 2021). It is important for airlines to keep pace with the new developments and remain at the forefront in the highly competitive market (Amankwah-Amoah, 2020).

The outcome of this study would contribute to extant literature on the application of the EXQ model in a high involvement service sector during a very different context such as a health crisis. Moreover, knowledge of various factors that could provide great experience to airline customers during the pandemic would help the industry at large to redesign their service offerings and focus on areas that are important to customers.

In the next section, we review literature on customer experience and the EXQ model under various service settings, and thereby propose our own research model. The subsequent section covers the methodology used to collect responses, analyze data and the results derived from Structural Equation Modeling, using Smart PLS. The implications of the study to theory and practice and conclusion are presented in the final sections of the paper.

Literature Review

Customer Experience

Customer experience has been researched and explored for three decades; however, there is no single meaning, definitions, and interpretations that define this concept holistically. Customer experience is believed to have become popular, since conventional marketing activities were not satisfactorily meeting customer requirements (Schmitt, 1999). In fact, Codeluppi (2001) stated that the purpose of customer experience is to treat customers as active and integrated players in their interaction with a firm. The author went on to state that customer experiential marketing aims at establishing a connection with customers by integrating their senses at various service encounters. Bagdare and Jain (2013) further defined customer experience as a combination of emotional, sensorial, cognitive and behavioral response that emerges during a purchase process, albeit in the retailing context. All the above-mentioned definitions have tried to contribute different dimensions to the concept of customer experience. Table 1 represents some of the prominent consumer studies conducted in airlines industry employing both qualitative and quantitative research methods.

However, in the hospitality and tourism sector, it is believed that customers 'buy' experiences and memories, and not just focus on service quality and service delivery (Hemington, 2007; Walls et al., 2011). Hence, it is utmost important for organizations to design customer experiences solely by keeping the customer at the forefront, while viewing service delivery from a customer's perspective. For long, SERVQUAL has been guiding both researchers and practitioners of service industries as a competitive measurement model to analyse customer experience (Badgett et al., 2007; Kashif et al. 2014). SERVQUAL evaluates customers' attitudes and the functional aspects of service delivery which is a cognitive evaluation of the service (Chang & Horng, 2010; Jin et al., 2015; Otto & Ritchie, 1996). However, it has failed to address some of the hedonic tendencies and consumers' emotional aspects (Jin et al., 2015) and hence less holistic and limited in its approach (Jin et al., 2015; Maklan & Klaus, 2011). While the SERVQUAL method is assumed to be good for analyzing gap that exists between service expectation and delivery, it may not be fully relevant for assessing customer experience (Laming & Mason, 2014a, 2014b). As a matter of fact, several traditional service marketing measurement models, viz., GAP model, theory of planned behavior that exist, have had their own limitations in terms of understanding customer experience quality (Gilmore & Pine, 2002; Verhoef et al., 2009). Keeping various views of extant researchers and practitioners in mind, and after referring to the shortcomings of some of the

Table 1 Literature review of consumer studies in air transport industry

Year	Author/s	Constructs/methodology	Outcome
2021	İnci Polat, Dilek Erdogan and Osman Seraceddin Sesliokuyucu	Theory of planned behaviour was applied to understand travel intention of airline passengers during COVID-19 pandemic	Findings indicate that there is a significant relationship between travel intention and trust, perceived risk, perceived value, habit
2021	Hye-Jin Kwon, Hyun-Jeong Ban, Jae-Kyoon Jun and Hak-Seon Kim	The study was conducted using modeling and sentiment analysis on the reviews of the air passengers	The outcome of this study revealed 'delay' as one of the primary reasons for dissatisfaction, whereas 'staff' and 'food' were found to be satisfiers
2019	Hyun-Jeong Ban and Hak-Seon Kim	Qualitative method was adopted to understand customer experience and satisfaction of air passengers. Customer online reviews were considered	Seat comfort, staff, food and beverage (F&B), entertainment, ground service, and value for money were identified as important factors. All the factors except 'entertainment' were found to influence passenger satisfaction
2014	Fotis Misopoulos, Milijana Mitic, Alexandros Kapoulas, Christos Karapiperis	The study employed twitter to identify critical elements of customer service in the airline industry	Mobile check-in services, favorable prices, and flight experiences were found to be leading to positive sentiments whereas negatives sentiments were linked to flight delays and lost luggage
2014	Calum Laming and Keith Mason	This paper investigated the concept of customer experience in airlines industry and also assess impact of experience on loyalty and advocacy	The outcome of the study suggested that the airline passenger journey most strongly related to overall satisfaction, loyalty and advocacy
2012	Neil Curry and Yuhui Gao	Quantitative method was adopted to understand link between constructs: service quality, satisfaction, and loyalty, in the context of low cost airlines	The findings of the study suggested that the service quality and customer satisfaction have positive influence on repurchase intentions whereas satisfaction is found to be much stronger driver in influencing repurchase intention than service quality
2011	Christian M. Ringle, Marko Sarstedt, and Lore	This study investigates the customer satisfaction of airline passengers and introduces perceived safety as a satisfaction	The outcome of the study indicate that perceived safety greater impact on customer satisfaction who travel for pleasure than on that of business purpose

Source: Author's own compilation

existing customer experience measurement models (Payne et al. 2008; Schouten et al., 2007) Klaus and Maklan (2013) developed the EXQ scale to measure customer experience ‘holistically’. The EXQ scale has been proposed keeping in mind both the emotional and cognitive evaluation of service quality from the consumers’ perspective. Specifically, the EXQ scale assesses the behavioral outcomes that are exhibited after a consumer avails a service per se. In the process, the EXQ model deeply borrows from behavioral theories, and lays a path towards achieving service excellence by ensuring positive outcomes (Klaus & Maklan, 2013; Kuppelwieser & Klaus, 2021).

Customer Experience Quality Model (EXQ)

With increasing competition across sectors, particularly airlines and hospitality, providing an effective and memorable customer experience is critical for survival. Hence, organizations should work towards improving customer experience proactively, specifically in these sectors (Siering et al., 2018; Bharwani & Jauhari, 2013). Many studies from the past have employed both quantitative (Elliott & Roach, 1993; Xu et al., 2018; Yu et al., 2017) and more recently, a qualitative approach (Adeniran & Fadare, 2018; Ban & Kim, 2019; Zaki Ahmed & Rodríguez-Díaz, 2020) to understand and assess both service quality and customer experience ‘holistically’, especially within the ambits of the airlines industry. In fact, analyzing customer experience quality become popular phenomenon in most of the service industries as can be seen from the research studies mentioned in Table 2; however, there seems to be limited applicability of EXQ scale in the airlines industry. Also, the customer experience studies conducted during the COVID-19 pandemic have not employed EXQ model (Kwon et al., 2021; Polat et al., 2021). Generally, in the context of the service industry, air travel is considered to be a high involvement service, thus understanding

customers in this sector and also the applicability of EXQ becomes more relevant as customers make purchase decision not only on the basis of functional benefits, but also to gain emotional satisfaction (Jin et al., 2015; Lemke et al., 2011). From the studies quoted in Tables 1 and 2, it could be noted that though customer experience studies have been conducted in pre-pandemic or in the ongoing pandemic in airlines industry none of these studies have employed dimensions of EXQ model to analyse customer experience. Hence, this becomes an essential basis for conducting this study.

Hypothesis Development

Klaus and Maklan (2013) proposed the EXQ model that consists of four dimensions of customer experience, viz., outcome focus, product experience, peace of mind and moments of truth (Kuppelwieser & Klaus, 2021; Laming & Mason, 2014a, 2014b). *Product experience* refers to various features and ranges of products and services offered by the organization, vis-a-vis the customers’ perceptions formed based on such offerings. Product experience is considered an essential element in creating consumer loyalty and refers to all possible experiences between customer and the product/service (Algharabat et al. 2017; Spinelli et al., 2019; Frank et al., 2014). Hence, the dimension of product experience asserts that the customers should be able to perceive that they can compare and choose from a range of product varieties offered by service provider (Lin & Bennett, 2014). According to Bui and Kemp (2013) product experience significantly contributes to shaping memorable customer experience. Therefore, we hypothesize:

H1: Product experience of air travelers significantly impacts EXQ during the pandemic

Outcome focus means that the organization extends enough trust in consumers that they do not seek out services

Table 2 Literature review of EXQ studies

Year	Author/s	Context/industry	Outcome
2021	Volker G. Kuppelwieser, Phil Klaus	B2B environment of two African countries vs European B2B companies	The B2B experience in Africa differs significantly from other countries
2018	Subhadip Roy	Hedonic vs Utilitarian services	The findings implied a differential effect of EXQ on the hedonic vs utilitarian services and regular
2015	Kashif et al	Healthcare	Findings of the study suggested, two dimensions of EXQ scale: moments of truth and peace of mind were found to be highly valued by customers. Furthermore, the EXQ perceptions significantly contribute to satisfaction and loyalty
2013	Philipp Klaus and Stan Maklan	Mortgage, fuel and service station, Retail banking, luxury goods	Tested in four different service settings, EXQ is considered to better explain behavioural intention and recommendation than traditional marketing models
2011	Stan Maklan and Philipp Klaus	UK Mortgage Bank	Proposed EXQ scale as a superior alternative to SERVQUAL

Source: Author’s own compilation

elsewhere. Outcome focus instills a sense of goal-oriented consumer behavior, reducing the urge to find new service providers (Nsairi, 2012). In other words, it relates to reducing the customers' transaction costs (Havř, 2017; Raina et al., 2019). According to Wu et al. (2014) decreasing transaction costs would lead to increased repurchase intention of consumers. Che et al. (2015) also suggested that lock-in effect created due to low transaction costs encourages consumers to revisit the same service provider. Also it is not always possible for customers to evaluate any service before purchase and therefore consumers would like to stay with known service provider (Tang et al., 2020). Therefore it may be posited that:

H2: Outcome focus significantly impact EXQ of air travellers during the pandemic

A *moment of truth* occurs when a customer meets the service provider for service delivery and is any form of interaction during which a customer may form some impression of a company's services. A customer avails a service during the moment of truth, and organizations should ensure that service delivery is appropriate and to be remembered by consumers even after purchase (Jaakkola et al., 2015). It also emphasizes the service recovery component in case of complications due to service failure (Gallan et al., 2013). In other words, moment of truth is influenced by consumers' perception of a service delivery being good/bad, coupled with the skills of the service provider within the ambits of a service interaction (Lin & Bennett, 2014). Hence, we posit:

H3: Moment of truth factor would have a significant and positive impact on EXQ of air travellers during the pandemic

Peace-of-mind refers to the consumers' assessment of various touch-points in the overall delivery of service. For instance, it may relate to the consumers' emotional journey with the service provider that may occur either in a pre-purchase or post-purchase context of a service being rendered (Deshwal, 2016; Hwang & Seo, 2016; Roy, 2018). In other words, it alludes to the consumers' perception of the service providers' expertise, vis a vis the customer's own emotional enjoyment experiences through the process of service delivery. Hence, it is relevant to understand, if:

H4: Peace of mind would have significant positive impact on EXQ of air travellers during the pandemic

Having presented the literature on EXQ model, it may be noted that the scale promoted by Klaus & Maklan (2011, 2013) is still to be tested in many industry sectors in the backdrop of pandemic situation. Hence, adopting this scale to understand airlines' customer experience quality during such unprecedented situations offers the potential to assess the application of this scale and bring a different perspective. When the restrictions imposed by various Governments were lifted, consumers were apprehensive due to various risk associated with travelling and as a result only a limited number of consumers started travelling. It kick-started the

airline operations; however, it needs to be assessed if airlines could extend the same experience and quality as earlier? Hence, the researchers felt the need to establish a link between EXQ and the Airline's sector and assess its impact during pandemic times.

The EXQ model proposes three important outcomes from customer experience, viz., satisfaction, word-of-mouth and loyalty. Existing literature support that customer experience leads to satisfaction (Anderson & Mittal, 2000; Nisar & Prabhakar, 2017; Otto et al., 2020) increase loyalty (Shankar & Jebarajakirthy, 2019; Srivastava & Rai, 2018) and promote word of mouth (Babin et al., 2005; Keiningham et al., 2007; Voss & Zomerdijk, 2007).

Customer Experience and Customer Satisfaction

Satisfaction can be understood as the post-purchase evaluation of a customer's decision (Roy, 2018; Wirtz et al., 2000) which leads to customer loyalty, advocacy, retention and profitability (Messner, 2020; Parasuraman et al., 2005; Shankar et al., 2003). Customer satisfaction which is the desired outcome of marketing activities employed by the firm has been researched widely in academics across different industries (Farooq et al., 2018; Keiningham et al., 2003; Luo & Bhattacharya, 2006) Customer experience has been seen as a key indicator of satisfaction (Caruana, 2002; Messner, 2020; Yang, 2017) and exhibits a contributory relationship with customer experience (Yang, 2017; Sezgen 2019; Garbarino & Johnson, 1999). In a service industry, customer satisfaction can be seen as an evaluation of customer experience (Hsu et al., 2014) and is understood as an outcome derived from various experiences a customer undergoes in the process of service delivery (Khan et al., 2015). Since experience is seen as driving satisfaction, which in turn leads to customer loyalty, we hypothesize:

H5: The EXQ of air travellers leads to customer satisfaction during the pandemic

Perceived Health Risk as a Mediator

Perceived risk is considered as an essential element of consumer decision-making, especially in the service sector (Fuchs & Reichel, 2006; Han et al., 2019; Quintal et al., 2010). Quintal et al. (2010) defined perceived risk as a loss that may be encountered due to uncertainty related to the consumption of any service. In travel and tourism context perceived risk may include psychological, health risk and financial risk (Chen & Noriega, 2004; Huang et al., 2020; Lepp & Gibson, 2003; Shin & Kang, 2020; Sönmez & Graefe, 1998). Compared to other kinds of risks, health risk is considered to significantly impact travel decisions of individuals (Godovykh & Tasci, 2022; Jonas & Mansfeld, 2017). This was evident in the ongoing pandemic since people were

restricting travel due to associated health risk in the form of spread of infection (Chua et al., 2021; Cori et al., 2020; Reddy & Gupta, 2020).

Mediation variable is introduced with an intention to describe missing link between antecedent and the outcome variable (Lowry & Gaskin, 2014). In other words it is used here to provide a more accurate explanation for the customer experience's causal effect on customer satisfaction. Since this study is conducted during the pandemic and lockdown period perceived health risk among consumers may affect the causal relationship between customer experience and satisfaction during air travel. Thus, in this study, perceived risk has been hypothesised as mediating between customer experience and the outcome in the form of satisfaction among the air travellers.

H6: Perceived health risk significantly mediates between customer experience and satisfaction

Drawing on the literature of customer experience using EXQ models and integrating it with the concept of perceived risk a research model for this study is proposed and same has been diagrammatically presented through Fig. 1.

Questionnaire Design and Data Collection

We identified the constructs for the study from the customer experience quality model (EXQ), proposed by Klaus and Maklan (2013), based on which, we formulated our set of hypotheses for further empirical analysis. In an effort to test the EXQ model in the new normal, we also explored a mediating variable i.e. perceived health risk (Quintal et al., 2010). We obtained data for our research with the help of a structured questionnaire, using a pre-validated scale. Since this study intends to understand air travellers' experience quality during a pandemic, the statements in the original questionnaire were modified to suit the study requirement.

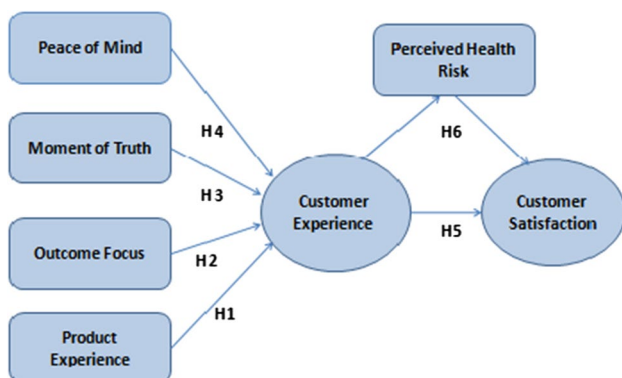


Fig. 1 Conceptual framework of EXQ dimensions with extended mediating factor of perceived health risk. Source: Authors' own creation

The items of the questionnaire can be found in Table A1 (as shown in Appendix in a separate supplementary file).

Given the nature of the study, we floated the questionnaire among more than 250 air passengers, who travelled during the pandemic, applying judgmental sampling (Malhotra et al., 2004). According to Malhotra (2010) the researcher, exercising judgement or expertise, chooses the elements to be included in the sample because it is believed that they are representative of the population of interest, or are otherwise appropriate. Hence, it was deemed appropriate to adopt judgmental or non-probability sampling for the current study. We took utmost care to ensure that the survey was attempted by a respondent only once. We also looked to ensure that the participants were adults (i.e. above 18 years of age) and were literate.

Sample Size

The sample size requirement of the study was achieved as proposed by Zikmund et al. (2012) to have a sample of ten times of the variables. The rule regarding sample size is even more fluid while using SMART PLS Structural equation modeling (Hair et al., 2017). Out of the total 250 respondents approached, we received 139 responses, of which 122 responses were complete in all respect, and therefore, these responses were considered for further analysis. As mentioned earlier, items of the questionnaire were picked from the tested scale by Klaus and Maklan (2013), using a 7-point scale. The responses were collected between July to December 2021 from both domestic and international air passengers. Responses were gathered mostly by floating online survey, considering the pandemic situation collecting physical responses was avoided.

Results and Discussion

We analyzed the data using SPSS and SMART PLS version 3.3.7. Demographic profile of the respondents was derived using SPSS, and the same has been presented in Table 3. The total sample size of 122 respondents comprised 63.1% men and 36.9% women. Most of the respondents (54.9%) belonged to the age group of 21–30 years, followed by 21 respondents falling under the age group of 31–40 years (17.2%). Regarding their monthly income, 53.7% of the respondents were under the income group of INR 45,000–65,000 per month (53.7%) followed by 21.1% respondents in the income slab of more than INR 65,000 per month.

We employed PLS-SEM version 3.3.7 for further analysis, since it is believed to derive appropriate results even with a small data set (Henseler et al., 2015; Sarstedt et al.,

Table 3 Demographic profile of respondents

	Particulars	No. of respondents	Percentage
Age group (in years)	Less than 20	14	11.47
	21–30	67	54.9
	31–40	21	17.2
	41–50	16	13.11
	Above 50	4	3.27
	Total	122	100
Gender	Male	77	63.1
	Female	45	36.9
	Total	122	100
Income level	Less than Rs. 25,000	11	8.9
	Rs. 25,001 to Rs. 45,000	20	16.3
	Rs. 45,001 to Rs. 65,000	66	53.7
	More than Rs. 65,000	26	21.1
	Total	122	100
Occupation	Employed in private service	30	24.6
	Employed in government service	8	6.6
	Business/self-employed	13	10.7
	Professionals	5	4.1
	Others	66	54.1
	Total	122	100

Source: Author's own creation using SPSS software

2014; Richter et al., 2016). To assess both validity and reliability of the measurement instrument, we calculated Cronbach alpha; this is presented in Table 4. It shows that the values do confirm a good reliable scale, being in the range of 0.7–0.9 ((Collis & Hussey, 2014). The factor loading above 0.7 value only w). The factor loading above 0.7 value only were retained for meaningful outcome after several iterations; 30 items out of total 35 were finally retained for further analysis (Collis & Hussey, 2014) as presented in Table 4. Additionally, Table 4 also presents composite reliability (CR) that reflects the internal consistency of the constructs, whereby any factor with values above 0.6 are considered to be more reliable (Hair et al., 2012). CR for our study's constructs was in the range of 0.8–0.9; hence, they were considered reliable. Another important criterion to assess the construct reliability is through understanding convergent validity, which would explain the extent of variance of its items and it is represented by Average variance extracted (AVE) in PLS–SEM. Minimum acceptable AVE for any construct is 50% according to Fornell–Lacker criterion (1981). The AVE for the constructs under study was well above the minimum criteria, ranging from 0.6 to 0.75 (Table 4). Assessing discriminant validity is also essential to measure how distinct one item is from another in SEM (Fornell–Lacker criterion 1981). According to Fornell–Lacker criterion, a latent item should be able to express better variance with itself than other latent items. The dimensions of

customer experience studied in this paper pass this test, and the values presented show better variances with itself, rather than other latent items (Table 5).

The R^2 value of any model under study express its explanatory power by extracting variance of each endogenous construct of the model (Koppius et al., 2014; Shmueli & Koppius, 2011). According to Rigdon (2012) R^2 may also be referred as a model's predictive power. The value of R^2 range should range from 0 to 1; higher values indicate greater explanatory power. The R^2 value for the model under study ranged between 0.67 and 0.74; hence, it can be said that the predictive power of the model was high. R^2 values are presented in Table 6.

Hypothesis Testing

After checking the measurement model for reliability, validity and predictability, structural equation modeling was employed for hypotheses testing. As shown in Table 7, four hypotheses were accepted and one is rejected, also path coefficient values of each dimension of EXQ can be seen from Fig. 2. The first hypothesis related to the impact of product experience dimension on experience quality was found significant ($\beta = 0.234$, $t = 2.21$, $p = 0.027$). Product experience dimension in the context of this study has addressed passengers need to have choices and compare offers within

Table 4 Factor loadings, composite reliability, Average variance extracted

Items	Factor loadings	Cronbach's alpha	Composite reliability	Average variance extracted
CEX 1	0.867	0.887	0.922	0.746
CEX 2	0.872			
CEX 3	0.861			
CEX 4	0.856			
CS 1	0.865	0.918	0.939	0.754
CS 2	0.865			
CS 3	0.882			
CS 4	0.852			
CS 5	0.877			
MOT 1	0.819	0.901	0.927	0.716
MOT 2	0.831			
MOT 3	0.857			
MOT 4	0.870			
MOT 5	0.855			
OUT 1	0.798	0.867	0.909	0.714
OUT 2	0.864			
OUT 3	0.876			
OUT 4	0.840			
POM1	0.761	0.842	0.888	0.613
POM2	0.744			
POM3	0.850			
POM4	0.802			
POM5	0.755			
PEX 1	0.890	0.904	0.933	0.776
PEX 2	0.865			
PEX 3	0.890			
PEX 5	0.877	0.704	0.832	0.64
PHR 1	0.72			
PHR 4	0.824			
PHR 5	0.902			

CEX customer experience, CS customer satisfaction, MOT moments of truth, OUT outcome focus, POM peace of mind, PEX product experience, PHR perceived health risk

Source: Values derived from SMART PLS software-(3.3.7) version

Table 5 Discriminant validity

	Customer experience	Customer satisfaction	Moment of truth	Outcome focus	Peace of mind	Product experience
Customer experience	0.864					
Customer satisfaction	0.856	0.868				
Moment of truth	0.717	0.775	0.846			
Outcome focus	0.775	0.859	0.832	0.845		
Peace of mind	0.651	0.677	0.680	0.637	0.783	
Product experience	0.775	0.843	0.803	0.813	0.652	0.881

Source: Fornell-Larcker discriminant validity derived from SMART PLS software-(3.3.7) version

Table 6 R square values

	R square	R square adjusted
Customer experience	0.670	0.659
Customer satisfaction	0.749	0.747

Source: R² values derived from SMART PLS software-(3.3.7) version

the product or service purchased. Similarly, results indicate that outcome focus ($\beta=0.331, t=2.44, p=0.015$) also has significant positive impact on customer air travel experience. Outcome focus dimension has reduced transaction cost of the consumers leading to higher repurchase intention and reduced intention to find new airlines. Further, the analysis also indicates that the third hypothesis of the EXQ dimension, i.e., moment of truth ($\beta=0.047, t=0.111, p=0.675$) was found insignificant and the fourth dimension viz., peace of mind was found to be significant. Peace of mind ($\beta=0.19, t=2.07, p=0.039$) dimension of EXQ ensured customers travelled at ease and with complete trust on the expertise of airlines. During the pandemic time, peace of mind dimension became all the more relevant for air travelers.

The findings from path co-efficient estimates suggest outcome focus (0.331) and product experience (0.324) dimension having strongest impact on EXQ among its other dimensions under the given situation. The results for H5 also suggest significant effect of EXQ thereof ($\beta=0.86, t=32.59, p=0.00$) on customer satisfaction. Air passengers experience has been satisfactory during the pandemic times. Figure 2 shows the factor loadings of each item, with the path co-efficient values and the R² values. This figure has been derived from the analysis conducted using SMART-PLS software.

Mediation Analysis

Hypothesis 6 assessing the mediating effect of perceived health risk on EXQ and satisfaction ($\beta=0.247, t=1.765, p=0.078$) is also significant, and mediation is considered to

Table 7 Hypothesis testing

	Path co-efficients	T statistics (IO/STDEV)	P values	Status
Product experience -> Customer experience (H1)	0.324	2.219	0.027	Accepted
Outcome focus -> Customer experience (H2)	0.331	2.441	0.015	Accepted
Moment of truth -> Customer experience (H3)	0.047	0.111	0.675	Not- accepted
Peace of mind -> Customer experience (H4)	0.198	2.074	0.039	Accepted
Customer experience -> Customer satisfaction (H5)	0.866	32.595	0.000	Accepted
Perceived health risk -> Customer satisfaction (H6)	0.639	4.689	0.000	Accepted
Perceived health risk -> Customer experience (H6)	0.902	46.761	0.000	Accepted
Customer experience -> Customer satisfaction (H6)	0.247	1.765	0.078	Mediation significant

Source: Author’s compilation of *p* values derived from bootstrapping using SMART PLS software-(3.3.7) version; *p* values < 0.05; *p* < 0.005 be effective when the results indicate that the indirect impact significant mediation of perceived health risk on EXQ and

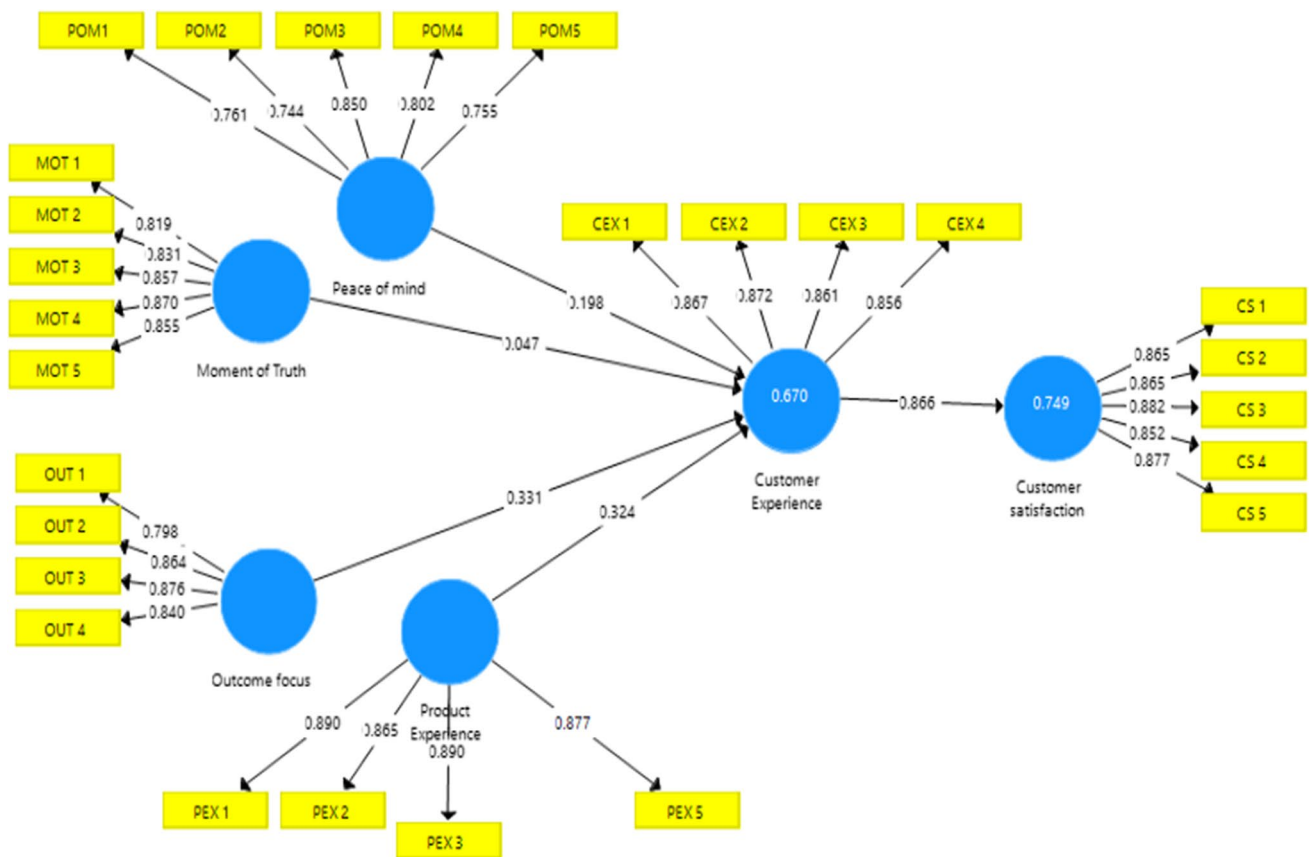


Fig. 2 Representing path co-efficient values of EXQ dimensions derived from SMART PLS-SEM

between the constructs is positive. Notably, the results are depicted in Table 7. In other words, the mediation effect is significant when the direct relationship among the constructs is found insignificant as per the path co-efficient values derived through SEM-PLS (Nitzl et al., 2016; Sharma & Singh, 2021). Therefore, it can be inferred that there exists

customer satisfaction.

Thus, results of this study confirm that all four dimensions of EXQ are found to have significant impact on customer experience in airlines sector during the pandemic time. The result of this study is in conformity with the outcomes proposed by (Klaus & Maklan, 2013; Kashif et al., 2014; Roy, 2018). It may be observed that among all four

dimensions of EXQ outcome focus and product experience were found to be more significantly influencing service experience, respectively (Klaus & Maklan, 2013; Kashif et al., 2014).

Hence it may be noted that both these dimensions are influencing customer evaluation of air services during this pandemic. The mediation factor tested in this model also emphasised that during the crises strategies envisaged by the EXQ model though works well but not without reducing perceived health risk among consumers. Thus, it can be said that even after ensuring good customer experience throughout the journey, airline companies may be still struggling to satisfy consumers due to increased presence of health risk perception among them. Such perceived health risk among the passengers may have also caused due to the nature of the pandemic. Hence, the outcome of this study is relevant both for the practitioners and researchers.

Implications

Theoretical Implications

There are four broad implications of this study. First, our study is unique since it attempted to apply the EXQ framework to understand customer experience with air travel during the ongoing pandemic. It was observed that recent studies focused on understanding the role of air transportation and airlines in transmission of disease when infected passengers travel across countries (Hertzberg et al., 2018; Manca et al., 2021). As stated earlier, there has been limited literature in understanding customer experience in air travel during this pandemic, especially in the context of a developing country like India. We thereby attempted to address this gap by conducting an empirical study, and argue that during such a healthcare crisis, the EXQ model can capture various facets of customer experience offered by service firms. EXQ model is found relevant in the present context since traditional service quality models were proved to be ineffective (Klaus & Maklan, 2013; Roy, 2018).

Second, we proposed an extended EXQ model for developing framework for services during such extreme crisis which needs very high attention of the service provider. Due to the nature of the current pandemic, travelling by airlines was considered to create high risk of infection, and therefore it was crucial to understand the experience and satisfaction level of those few passengers who travelled in airlines under such circumstances. The causal relationship between air travel and health in a pandemic does increase the perceived risk (Polat et al., 2021). Interestingly, our findings do concur with the outcome of a study by Lamb et al. (2020) and Ozbilen et al (2021), which revealed that perceived threat

and fear from COVID-19 affected customer satisfaction and intention to fly during the pandemic.

Third, the findings of our research also provide further empirical validation of the EXQ constructs while studying high involvement, high contact professional services. EXQ scale focuses on multi-dimensional attributes during the customer's entire purchase journey (Klaus, 2014) and includes customers' cognitive, emotional, behavioral, sensorial, and social responses to a firm's offerings. Bases experience of customers gathered from air travellers during the pandemic our study shed some light on how the pandemic affected their experiential value based on the aspects such as Product experience, Outcome focus, Peace of Mind and Moments of Truth. As can be inferred from the results all dimensions of EXQ were found to be significant except for 'moment of truth' in the context of this study. The passengers felt that airlines fell short in creating positive moments of truth during service encounter which is considered as an opportunity for the organization to create memorable customer experience. This finding strengthens EXQ model's ability to capture the emotions and feelings of the consumer in addition to functional aspects of the relationship between the customer and organization.

Lastly, as stated earlier EXQ model which was proposed as a superior scale compared to conventional marketing models, viz., GAP model and SERVQUAL model to assess customer experience had limited applicability across various service industries. This study has contributed towards enhancing its applicability in airlines sector as well.

Managerial Implications

Given the gravity of the COVID-19 pandemic, many airlines quickly responded by focusing on their operational measures as per the guidelines provided by the Governments and other regulatory bodies (Amankwah-Amoah, 2020). Airlines have the obligation to understand their customers for assured growth of business, and improve customer experience (Siering et al., 2018). Consumers may restrain from flying due to multiple factors, and it is the responsibility of the airlines to design appropriate strategies that would protect its customers in the new normal by assuring safety. Airline managers should thereby consider these expectations of customers' service experiences, especially in such unprecedented circumstances. Based on our findings, we believe that they would be relevant to the larger services sector too that requires direct contact and involvement with customers.

Second, this study is particularly relevant in the current situation, as it provides an insight into the shift in the behavior pattern and preferences of air passengers in general and Indian passengers in specific amid the COVID-19 pandemic. We therefore believe that it is crucial to the airlines to have a customer experience strategy that can boost the

confidence of the passengers by reworking on the overall product experience dimension emerged as most effective dimension of EXQ. In fact, this is sync with the recommendation of Florido-Benítez (2021), whereby the author proposed to develop strategies and action plans to identify and remove barriers that make it difficult for passengers to travel by airlines during a pandemic. The quick response to these changes will help the airlines to remain competitive and stay ahead of their counterparts.

Third, we argue that the firms should proactively take measures to minimize people's perception of health risks while travelling. The role of a perceived health risk as a mediating factor between customer engagement and satisfaction was examined in our study and it was proved that perceived health risk factor impacts customer satisfaction. In this context, we would like to highlight the suggestion given by World Tourism Organization is to consider replacing human intervention by technology to reduce the risk of infection. We concur with Chua et al. (2021) and recommend that the airlines aggressively convey risk reduction strategies to consumers frequently to boost their confidence while using air services.

Lastly, since airline is a high involvement-high touch sector, customer involvement is equally important for co-creation of service. Air passengers should be thoroughly educated of their role in maintaining safety and hygiene through the service delivery process. Airlines should not shy away from creating awareness among consumers regarding their own responsibility in availing flawless service experience during pandemic situation. Re-iterate Government regulations of social distancing and appropriate behavior among the passengers as frequently as required.

Conclusion

The outcomes of present study would help the airlines companies in India to understand customer experience from EXQ perspective. It also highlights the most significant dimensions in this model that would influence customer experience while travelling viz., Peace of mind, product experience and perceived health risk as a mediator. The outcomes of this study should be adopted by companies to promote positive perceptions among potential customers and create remarkable moments for their customers. This study reaffirms that EXQ model uses a holistic approach considering multi-dimensions and hence increasing the acceptability level of this model.

However, this study is not without limitations; it was conducted only among air travellers and hence, the outcomes cannot be generalized with users of other services, especially in the context of the pandemic. We recommend that future researchers to extend this study to other high involvement

services for better understanding the scope of EXQ model. Second, since this study was conducted with Indian air travellers, future scholars may look at using this framework to understand the perception of passengers from other countries too.

Key Questions Reflecting Applicability in Real Life

1. What are the critical success factors in the airline industry post COVID-19 pandemic?
2. Discuss the application of customer experience quality (EXQ) model in airlines industry?
3. How can airlines help reduce perceived health risk among air travellers?
4. Which airlines in India seem to have increasing international competitiveness?
5. How enhancing customer satisfaction can contribute to above?
6. What role can policy play to increase the international competitiveness of the airline and other firms of Indian origins (FIO's)? in advanced countries also?

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Author Contributions DRS: ideas, conceptualization, literature review writing—original draft preparation, methodology, formal analysis, and revision. SG: ideas, conceptualization, implications, critical review and revision. PM: conceptualisation and data collection.

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Data and Material Availability The data collected and analysed for the study can be made available upon request to the corresponding author.

Code Availability Not applicable.

Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest. The authors have no relevant financial or non-financial interests to disclose.

Ethical approval All authors agree with the content and all gave explicit consent to submit and have obtained consent from the responsible authorities at the institute/organization where the work has been carried out, before the work is submitted.

Consent for publication We confirm that this is our original work and has not been published elsewhere, nor it is currently under consid-

eration for publication elsewhere. We have no conflict of interests to declare.

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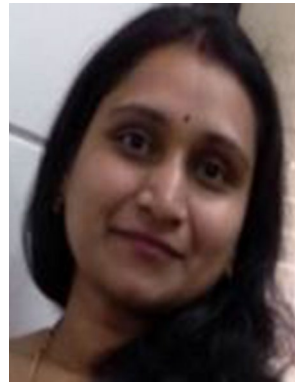
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