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Title: Factors Affecting Passenger Attitudes towards Low-Cost Carriers

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Conflict of Interest
The author (s) declared no conflict of interest and have not received any funds for the project.

Factors Affecting Passenger Attitudes towards Low-Cost Carriers

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Abstract

LCCs have a positive impact on the economies. For example, it includes generating employment, stimulating depressed economies, and contributing toward GDP. Extant literature also highlights that the LCC's business model increased productivity and efficiency, forcing others in the industry to adopt this model. Moreover, many researchers noted that because of this innovative model, airlines could connect to nonviable destinations. Furthermore, due to this innovative model, LCCs share has increased significantly. Researchers believe it will increase more profoundly. The study has proposed and tested six direct and six mediating hypotheses. We collected the data from local Pakistani travelers. We found that "low prices, access of passengers, technological self-efficacy, passenger loyalty, and airline reputation positively affect attitude towards LCCs." The "study highlighted that airline safety insignificantly affects LCCs. We also "examined the mediating role of passenger satisfaction between the above antecedents and attitude towards" LCCs. The study accepted all the mediating relationships except Hypothesis 12: "Passenger satisfaction mediates airline safety and LCCs."

Keywords: *Prices, access of passengers, technological efficacy, passenger loyalty, airline reputation, and airline safety on low-cost carriers.*

Introduction

In the prevailing competitive era, airline costs worldwide have increased significantly.

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As a result, a large segment cannot afford to travel by air (Koharudin & Simarmata, 2024). To make air travel more affordable for a wider audience, the aviation industry recently launched low-cost carriers (LCCs) (Efthymiou & Christidis, 2023). As a result, the demand for the segment that could not travel due to high airline fares has increased (Herjanto et al., 2022). Moreover, it has forced traditional carriers to innovate their products and services (Kanrak et al., 2024). Additionally, LCCs have positively affected the economies (Efthymiou & Christidis, 2023). For example, it has generated employment, stimulated depressed economies, and contributed toward GDP (Maulana et al., 2024). Extant literature also highlights that the LCCs business model increased productivity and efficiency, forcing others in the industry to adopt this model (Zou et al., 2022). Moreover, many researchers noted that because of this innovative model, airlines could now connect to destinations that were not financially viable (Shrago, 2024). Thus, we argue that this LCC model has become an essential component of the aviation industry (Efthymiou & Christidis, 2023).

The aviation industry in Pakistan has also adopted this model (Shahid, 2022). Thus, air travel in Pakistan is now more affordable and accessible (Rana & Ameen, 2023). PIA, Pakistan's national carrier, traditionally offered high-priced fares and had little focus on services (Zulqurnain et al., 2023). However, due to the LCCs, PIA now offers competitive fares and better services (Ali & Iqbal, 2024). Moreover, due to the entry of private airlines such as Air Blue and Fly Dubai, local passengers now have more travel options (Farooq et al., 2023). Furthermore, LCCs in Pakistan have increased employment opportunities, stimulated depressed local economies, and attracted foreign investment (Watandar et al., 2023). The study has extended the "Customer Value Theory" and examined:

1. The impact of "prices, access of passengers, technological efficacy, passenger loyalty, airline reputation, and airline safety on attitude towards LCCs.

2. The mediating roles of customer satisfaction between the above variables and attitudes toward LCCs.

Literature Review

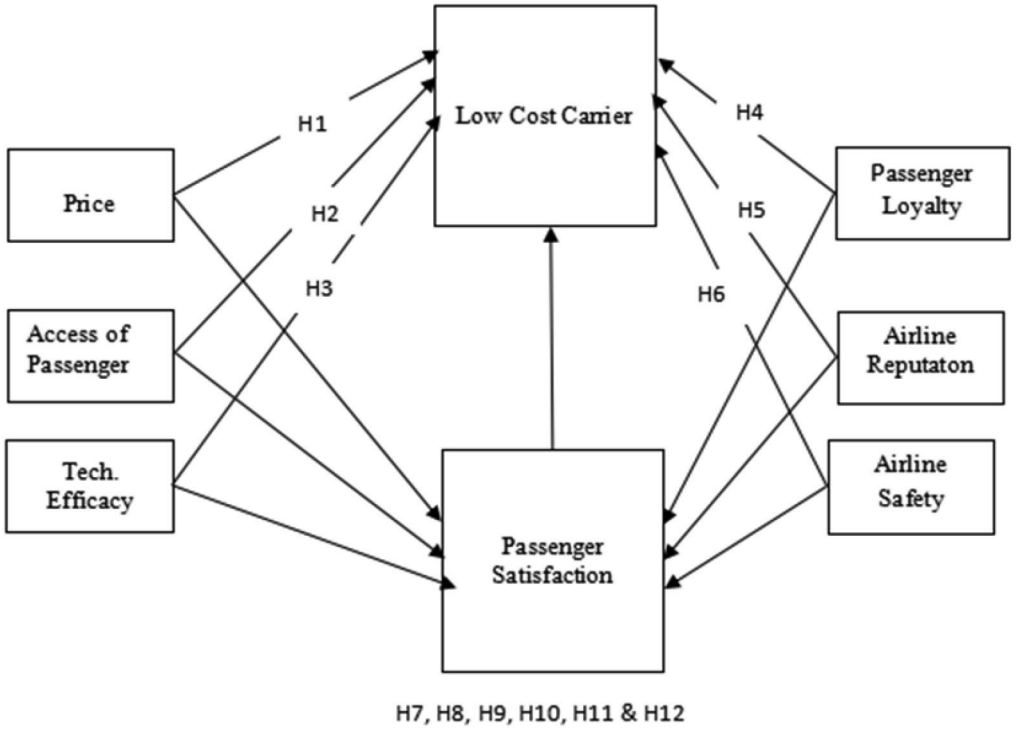
Customer Value Theory

Customer Value Theory (CVT) suggests that purchasing decisions significantly depend on the expected value proposition of goods and services (Sharma et al., 2024). In the context of LCCs in Pakistan, the CVT postulates that Pakistani travelers expect affordable fares, convenient schedules, and efficient airline service (Islam et al., 2023). Erturgut and Gürler (2023) assert that LCCs provide affordable transportation from one destination

to another (Ismat et al., 2023). However, while traveling, customers expect a safe, reliable, and comfortable flight experience (Akram et al., 2022). Besides providing these basic needs, LCCs can increase customer satisfaction by providing additional services, including priority check-in, food, and beverages (Ali & Iqbal, 2024). Mandasari et al. (2022) assert that LCCs can create customer value by focusing on functional, emotional, and social values. Functional values include "efficient services, convenient schedules, and affordable fares." Social values include "opportunities for social interactions" (Arul & Tahir, 2023). Economic values include "competitive pricing, discounts, and promotions" (Ashiq & Hussain, 2024). Thus, by understanding these values, LCCs in Pakistan can develop a value proposition that addresses customer needs and increases customer satisfaction (Nizam et al., 2022). This new proposition may give LCCs an edge, resulting in sustainable growth and profitability (Ali et al., 2024).

Conceptual Framework

By extending the "Customer Value Theory," we proposed a new model depicted in Figure 1, "with six direct and six mediating hypotheses."



Hypothesis Development

Price and LCCs

Many studies highlighted that "air travel prices positively affect attitudes toward LCCs" (Nurhidayat et al., 2023). Passengers in developing countries like Pakistan are highly price-sensitive (Du et al., 2024). If an airline's fares change slightly, they will switch to other carriers (Syahailatua et al., 2022). On the contrary, researchers believe that before making buying decisions, passengers compare the prices with the quality of services, amenities, and flexibility. If they feel the price gives them more value for the money, they will buy the ticket irrespective of the price (Karaağaoğlu & Gündüz, 2023). Moreover, consumers' perceptions of value for money are not the same. They vary from consumer to consumer (Karaağaoğlu et al., 2022). For example, the value-for-money perception of a carrier of one customer may be high (Kaffash & Khezrimotlagh, 2023). The same value for money perception for another customer would be low (Kanrak et al., 2024).

H1: Prices "positively affect attitude towards LCCs."

Access of Passenger and LCCs

Researchers argue that passengers' attitudes toward carriers profoundly depend on many factors, including "convenient access to airports, transportation options, and booking processes" (Nurhidayat et al., 2023). Moreover, travelers choose LCCs that are easily accessible, as this saves time (Gualini, 2024). Furthermore, travelers are more attracted to an airline whose booking system is user-friendly (Herjanto et al., 2022). Besides the above-discussed facilities, technology, and online booking systems positively affect passengers' attitudes toward LCCs (Nurhidayat et al., 2023). However, it varies from customer to customer (Efthymiou & Christidis, 2023). Passengers comfortable using technology have positive attitudes toward LCCs (Du et al., 2022). In contrast, passengers who are uncomfortable using technology will have a negative attitude toward LCCs (Kaffash& Khezrimotlagh, 2023).

H2: Access of passenger "positively affects attitude towards LCCs."

Technological Self-Efficacy and Attitude towards LCCs

Technology self-efficacy refers to individuals' ability to use digital technology (Capistrano et al., 2023). Thus, passengers with high technological self-efficacy would have a positive attitude toward LCCs (Chow et al., 2022). Padmaningrum et al. (2024) noted that LCCs could reduce costs by digitally offering online facilities such as booking, check-in, and other travel arrangements (Islam, 2023). However, researchers believe that passengers who are comfortable using technology appreciate these online

facilities (Ogegbo et al., 2024). On the other hand, passengers with low technological self-efficacy prefer personalized services (Nyman et al., 2022). Therefore, their attitudes toward technology self–efficacy would be low (Wachukwu et al., 2023).

H3: Technology self-efficacy "positively affects attitude towards LCCs."

Passenger Loyalty and Attitude towards LCCs

Maulana et al. (2024) noted that consumers with a pleasant experience with an LCC are more loyal to it (Karaağaoğlu & Gündüz, 2023). Moreover, LCCs that offer rewards and frequent flyer benefits increase passengers' loyalty (Erdağ et al., 2024). Furthermore, passengers' perception of belonging to an LCC increased their loyalty (Herjanto et al., 2022). Additionally, passengers' loyalty toward an LCC depends on "price, convenience, and service quality." (Kethüda et al., 2023). These aspects individually and collectively positively affect passenger attitudes towards LCCs. Kanchanaet et al. (2024) believe that passengers' overall loyalty toward LCCs positively affects their attitudes toward LCCs (Lin, 2022).

H4: Passenger loyalty "positively affects attitude towards LCCs."

Airline Reputation and LCCs

Researchers believe a "reliable, trustworthy" LCC increases its reputation (Chand et al., 2024). Consequently, passengers develop a positive attitude towards such a LCC (Herjanto et al., 2022). Moreover, researchers assert that passengers develop a positive attitude towards LCCs with a strong reputation for "customer service and overall quality" (Chang & Ku, 2023). In contrast, passengers would have negative attitudes toward LCCs with poor reputations despite offering lower prices than competitors (Kim & Hwang, 2023). Moreover, passengers tolerate any shortcomings of a reputed LCC (Shrago, 2024). Furthermore, LCCs' online reviews on social media increase their reputation, making them more attractive to passengers (Lee et al., 2022).

H5: Airline reputation "positively affects attitude towards LCCs."

Airline Safety and LCCs

Many antecedents affect passengers' attitudes toward LCCs. However, studies have noted that airline safety is the most important antecedent (Koharudin & Simarmata, 2024). Moreover, LCCs with a strong safety reputation increase passengers' confidence, leading to positive attitudes toward them (Thongkruer & Wanarat, 2023). On the other hand, safety concerns adversely affect passengers' attitudes toward LCCs, even if they offer lower fares than competitors (Herjanto et al., 2022). Researchers noted that airlines

that compromise on safety to reduce costs would promote negative attitudes (Chand et al., 2024). Moreover, safety certifications and transparent communication about safety measures enhance LCCS's reputation, leading to passengers' positive attitudes towards such LCCs (Reginio & Kankaew, 2023). Furthermore, researchers believe that passengers may compromise on other aspects but not on safety (Ra, 2024).

H6: Airline safety "positively affects attitude towards LCCs."

Price, Passenger Satisfaction, and Attitude towards LCCs

Koharudin and Simarmata (2024) assert that passengers' perception of the price of LCCs being reasonable and fair positively affects their satisfaction (Karaağaoğlu & Gündüz, 2023). As a result, this satisfaction enhances passengers' attitudes towards LCCs (Chand et al., 2024). On the other hand, if passengers believe that the prices of LCCs are too high, it will reduce their satisfaction, leading to negative attitudes towards LCCs (Du, 2024). Thus, we argue that price indirectly (through passenger satisfaction) affects attitudes toward LCCs (Bagwell & Kellerman, 2023).

H7: Passenger satisfaction "mediates price and attitudes towards LCCs."

Access of Passenger, Satisfaction, and Attitude towards LCCs

Researchers believe that enhancing passengers' access to LCCs can increase their satisfaction (Erdağ et al., 2024). Passenger access includes "ease of booking, convenient flight schedules, and affordable fares." All of these factors individually and collectively affect passengers' satisfaction (Karaağaoğlu & Gündüz, 2023). Thus, when passengers experience high access levels, their satisfaction increases (Xue & Ylagan, 2024). As a result, their attitudes towards LCCs increase positively (Bagwell & Kellerman, 2023). On the other hand, limited access reduces passengers' satisfaction levels, leading to negative attitudes toward LCCs (Lin, 2022).

H8: Passenger satisfaction "mediates access of passengers and attitudes toward LCCs."

Technological Self-Efficacy, Passenger Satisfaction, and Attitude towards LCCs

Technological self-efficacy refers to individuals' ability to use digital technology (Brents Jr et al., 2024). Thus, passengers with high technological self-efficacy would be more satisfied, leading to a positive attitude towards LCCs (Aamir et al., 2023). In contrast, Kim and Cho (2024) assert that passengers with low technological efficacy would be less satisfied, leading to negative attitude towards LCCs (Fuyane, 2021).

H9: Passenger satisfaction "mediates technological self-efficacy and attitude towards LCCs."

Loyalty, Passenger, and Attitude towards LCCs

Airline passengers with positive experiences with LCCS are loyal to them (Angulo-Cabanillas, 2024). Thus, researchers believe this satisfaction enhances passenger loyalty and increases their attitudes toward LCCs (Pan & Truong, 2021). On the other hand, passengers with low loyalty toward LCCs are often not satisfied (Aamir et al., 2023). As a result, they develop low attitudes toward LCCs (Wungrotjanarut, 2020). Many past studies noted that loyalty, directly and indirectly (through satisfaction), affects attitudes toward LCCs (Kim & Cho, 2024).

H10: Passenger satisfaction "mediates passenger loyalty and attitude towards LCCs."

Airline Reputation, Passenger Satisfaction, and Attitude towards LCCs

Researchers assert that passengers are satisfied with highly reputed LCCs (Koharudin & Simarmata, 2024). This satisfaction leads to positive attitudes toward LCCs (Karaağaoğlu & Gündüz, 2023). In contrast, passengers are dissatisfied with poorly reputed LCCs (Dike et al., 2024), resulting in negative attitudes toward LCCs (Bagwell & Kellerman, 2023). Many studies noted that loyalty indirectly (through satisfaction) affects attitudes toward LCCs (Maulana et al., 2024).

H11: Passenger satisfaction "mediates airline reputation and attitude towards LCCs."

Airline Safety Passenger Satisfaction and Attitude towards LCCs

Koharudin and Simarmata (2024) assert that customers are highly satisfied with the LCCs with a reputation for safety (Bagwell & Kellerman, 2023). As a result, this positively affects their attitudes toward LCCs (Erdağ et al., 2024). On the contrary, passengers are unsatisfied with the LCC's poor safety record (Herjanto et al., 2022). This dissatisfaction leads to negative attitudes toward LCCs (Bagwell & Kellerman, 2023). Many studies highlight that LCCs' safety indirectly (through Satisfaction) affects attitudes toward LCCS (Eshaghi et al., 2024).

H12: Passenger satisfaction mediates "airline safety and attitude towards LCCs."

Methodology

Research Design

If a researcher plans and executes a research design, it will help achieve research objectives and improve the quality of the research. A research design includes types of study, target population, sampling techniques, scales and measures, and statistical analysis (Cooper & Schindler, 2020). This study empirically tested the hypotheses (Sekaran & Bougie, 2020). Moreover, its approach is deductive since we build the hypotheses based on the past literature and empirically test them based on data collected through close-ended questionnaires (Zikmund et al., 2020).

Population and Sample Size

Cooper and Schindler (2020) assert that defining the target population is important. Researchers can focus on a specific group and develop an appropriate sampling technique in a well-defined target population (Creswell, 2019). In addition, it improves generalizability, reduces bias, and enhances accuracy (Saunders et al., 2019). The study's target population is local passengers who traveled locally or internationally in 2021. According to estimates, their size in 2021 was 4.93 million (The Global Economy, 2021). The minimum sample size for this population using Rao Soft comes to 387. However, we intercepted 500 passengers and received 480 questionnaires.

Scale and Measures

Zikmund et al. (2020) assert that scales and measures are important determinants of research. They allow researchers to ensure that the collected data are accurate, reliable, and valid (Sekaran & Bougie, 2020). We measured the respondents' responses on the 5-point Likert Scale. "One shows a low agreement, and five suggest a high agreement." Table 1 summarizes the data related to the adopted questionnaire.

Table 1: Scale and Measures

Constructs	Sources	Internal Consistency in Past Studies	Items
Low-Cost Carrier	Singh and Kapoor (2017)	0.783 to 0.780	5
Price	Özdemir and Şimşek (2017)	0.774 to 0.795	5
Access of Passengers	Singh and Kapoor (2017)	0.766 to 0.832	7
Technological Efficacy	Venkatesh and Davis (2000)	0.770 to 0.801	6
Passenger Loyalty	Chen and Chen (2017)	0.779 to 0.886	7
Airline Reputation	Kim and Lee (2022)	0.713 to 0. 856	6
Airline Safety	Bravo and Vieira (2019)	0.786 to 0. 832	6
Passenger Satisfaction	Chen & Chen, 2022)	0.801 to 0.888	6

Statistical Analysis

We have used Smart PLS for statistical analysis. Researchers prefer this software to others due to its unique combination and benefits (Radomir & Ringle, 2022). Moreover, Smart PLS can handle large data sets and analyze multiple-group data (Ringle & Sarstedt, 2022). Furthermore, it offers extensive reporting options and facilitates a clear and concise presentation of results (Hair et al., 2022).

Results

Respondent Profile

Table 2 depicts the respondents' profile in terms of "gender, marital status, age, educational level, and income level."

Table 2: Demographics

Demographic	Category	Percentage
Gender	Male	57%
	Female	44%
Marital Status	Single	43%
	Married	54%
	Divorced	10%
Age	Up to 20 Years	37%
	21 to 30 Years	33%
	31 to 40 Years	20%
	41 to 50 Years	10%
	51 Plus Years	
Education level	Martic	12%
	Inter	35%
	Diploma	
	Bachelors	45%
	Master	8%
Income	Up to Rs.50,000	7%
	Rs.51,000 to Rs.100,000	18%
	Rs.101,000 to Rs.150,000	39%
	Rs.151,000 to Rs.200,000	19%
	Rs.200,000 Plus	17%

Measurement Model

A measurement model operationalizes the constructs and ensures they accurately capture the underlying concepts (Hair et al., 2022). It also generates results related

to the "reliability and validity of the indicators, individual item loadings, composite reliability, and average variance extracted (AVE)" (Kock, 2022). It lays the foundation for the structural model, leading to a meaningful conclusion (Sarstedt et al., 2022). Figure 2 depicts the measurement model.

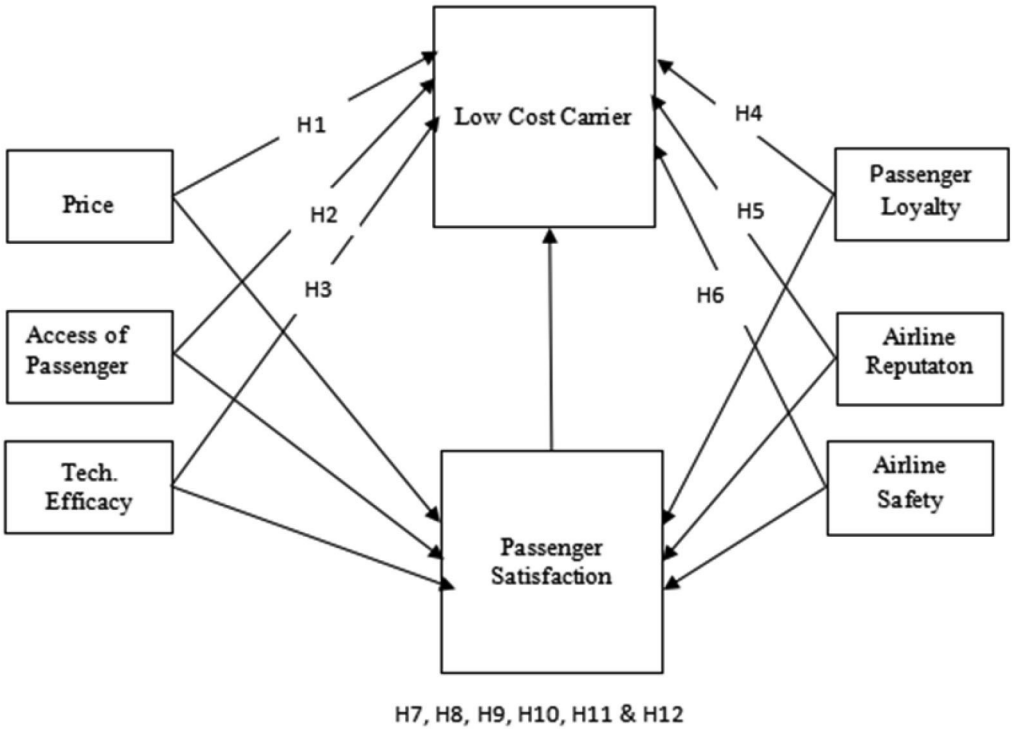


Figure 2: Measurement Model

Convergent Validity

Table 3 shows results related to the convergent validity. It shows loadings of indicator variables, the AVE values and composite reliability of the constructs.

Table3 Construct Reliability

Constructs	Items	Loading	AVE	C. Reliability
Price	PR1	0.913	0.891	0.919
	PR2	0.873		
	PR4	0.881		
	PR5	0.923		
Access to Passenger	AP1	0.772	0.606	0.885
	AP2	0.775		

	AP3	0.799		
	AP4	0.772		
	AP7	0.773		
Technological Efficacy	TE1	0.740	0.585	0.894
	TE2	0.795		
	TE3	0.826		
	TE5	0.724		
	TE6	0.765		
Passenger Loyalty	PL1	0.765	0.606	0.915
	PL2	0.800		
	PL4	0.819		
	PL5	0.739		
	PL6	0.825		
	PL7	0.768		
Airline Reputation	AR1	0.847	0.661	0.921
	AR2	0.800		
	AR3	0.859		
	AR5	0.810		
Airline Safety	ARS1	0.848	0.681	0.895
	ARS3	0.822		
	ARS4	0.849		
	ARS5	0.779		
Passenger Satisfaction	PS2	0.837	0.661	0.907
	PS3	0.782		
	PS4	0.795		
	PS5	0.838		
	PS6	0.811		
Low-Cost Carrier	LCCs.1	0.800	0.741	0.935
	LCCs.2	0.896		
	LCCs,3	0.882		
	LCCs.4	0.882		
	LCCS.5	0.842		

The results show that the factor loading of all indicator variables is at least 0.724 (Cooper & Schindler, 2020). The AVE values cross the threshold levels of 0.500, and the composite reliability values are greater than 0.885. Thus, we inferred "that the constructs fulfill the requirement of convergent validity" (Sekaran & Bougie, 2020).

Discriminant Validity

Assessing the discriminant validity of the constructs is essential (Henseler et al., 2025). Otherwise, it may distort the results (Rönkkö & Cho, 2022). The discriminant validity based on Fornell and Larcker's (1981) Criteria has certain limitations. Therefore, we have assessed it using two methods: (i) Fornell and Larcker's (1981) criteria and (ii) HTMT ratio. Table 4 shows that "AVE square values exceed Pearson Correlation Values." Table 5 shows "that HTMT values are less than 0.850" (Henseler et al., 2025). Thus, the results of both methods "confirm that the constructs are unique and different."

Table 4: Discriminant Validity (Fornell and Larcker, 1981 Criteria)

Constructs	AP	AR	ARS	PR	LCCS	PL	PS	TE
Access to Passengers	0.778							
Airline Reputation	0.739	0.813						
Airline Safety	0.620	0.713	0.825					
Price	0.622	0.597	0.384	0.890				
Low-Cost Carrier	0.705	0.745	0.628	0.575	0.861			
Passenger Loyalty	0.741	0.736	0.741	0.615	0.767	0.779		
Passenger Satisfaction	0.723	0.761	0.615	0.597	0.704	0.784	0.813	
Technological Efficacy	0.727	0.753	0.599	0.629	0.759	0.743	0.735	0.765

Table 5: Discriminant Validity (HTMT Ratio)

Constructs	AP	AR	ARS	PR	LCCS	PL	PS	TE
Access to Passengers	-							
Airline Reputation	0.853							
Airline Safety	0.727	0.813						
Price	0.727	0.673	0.433					
Low-Cost Carrier	0.804	0.903	0.706	0.642				
Passenger Loyalty	0.854	0.927	0.853	0.697	0.845			
Passenger Satisfaction	0.845	0.855	0.698	0.686	0.901	0.880		
Technological Efficacy	0.972	0.852	0.693	0.722	0.853	0.840	0.843	-

R Square Value

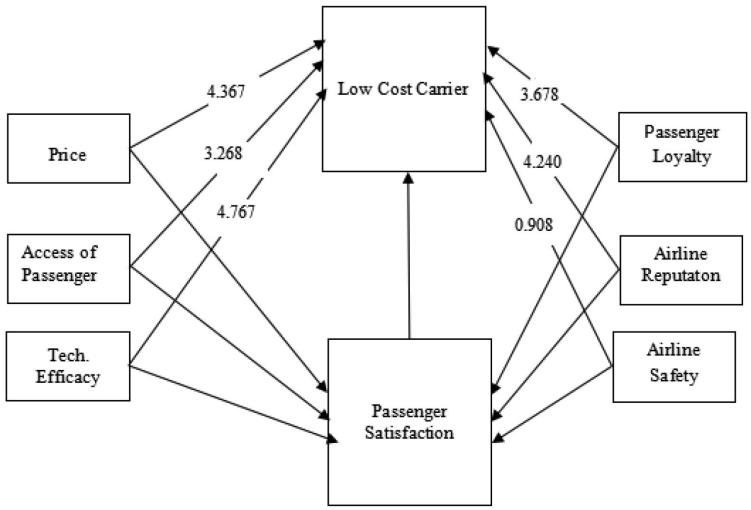
The R^2 value indicates the predictive power of the Model. Table 6 shows that R square values for low-cost carrier and passenger satisfaction are 0.764 and 0.684, respectively, suggesting good predictive powers (Kock, 2022).

Table 6: R Square Values

Dependent Variables	R-Square	R-Square Adjusted
Low-Cost Carriers	0.768	0.764
PS	0.689	0.684

Structural Model

A well-specified structural model is important as it validates the theoretical framework and identifies key outcomes (Radomir & Ringle, 2022). It also shows t-values and structural relationships (Kock, 2022). Figure 3 depicts the structural model.



Hypothesis Results

Table 7 shows the results of six direct Hypotheses and six mediating Hypotheses. It also shows the hypotheses' beta, t-values, and p-values.

Table 7: Hypotheses Results

Hypothesis	Beta	t-value	p-value	Results
Price -> Low Cost Carriers (H1)	0.214	4.367	0.969	Accepted
Access of Passenger -> Low-Cost Carriers (H2)	0.314	3.268	0.343	Accepted
Tech. Efficacy -> Low-Cost Carriers (H3)	0.215	4.767	0.000	Accepted
P. Loyalty -> Low Cost Carriers (H4)	0.125	3.678	0.661	Accepted
Airline Reputation -> Low Cost Carriers(H5)	0.402	4.240	0.000	Accepted
Airline Safety -> Low-Cost Carriers (H6)	0.008	0.098	0.922	Rejected
Price -> P. Satisfaction -> Low-Cost Carriers (H7)	0.118	3.672	0.098	Accepted
Access of Pas.-> P. Satisfaction -> Low-Cost Carriers (H8)	0.043	2.452	0.014	Accepted

T. Efficacy -> P. Satisfaction -> Low-Cost Carriers (H9)	0.202	4.187	0.001	Accepted
P. Loyalty -> P. Satisfaction -> Low-Cost Carriers (H10)	0.117	3.541	0.000	Accepted
A. Reputation R -> P. Sat. -> Low-Cost Carriers (H11)	0.071	2.175	0.030	Accepted
A. Safety -> P. Sat. -> Low-Cost Carriers (H12)	0.004	0.122	0.903	Rejected

The results support five direct hypotheses (H1, H2, H3, H4, and H5), but they do not support Hypothesis 6. In the context of mediating, we found support for five Hypotheses (H7, H8, H9, H10, H11) but not for Hypothesis 12.

Discussion and Conclusion

Discussion

We "found that price positively affects attitude towards LCCs." Many studies highlighted that "air travel prices positively affect attitudes toward LCCs" (Nurhidayat et al., 2023). Passengers in developing countries like Pakistan are highly price-sensitive (Du et al., 2024). If an airline's fares change slightly, they will switch to other carriers (Syahailatua et al., 2022). On the contrary, researchers believe that before making buying decisions, passengers compare the prices with the quality of services, amenities, and flexibility. If they feel the price gives them more value for the money, they will buy the ticket irrespective of the price (Karaağaoğlu & Gündüz, 2023).

We "found access of passengers positively affects attitude towards LCCs." Researchers argue that passengers' attitudes toward carriers profoundly depend on many factors, including "convenient access to airports, transportation options, and booking processes" (Nurhidayat et al., 2023). Moreover, travelers choose LCCs that are easily accessible, as they reduce and save time (Gualini, 2024). Furthermore, travelers are more attracted to an airline whose booking system is user-friendly (Herjanto et al., 2022). Besides the above-discussed facilities, technology and online booking systems positively affect passengers' attitudes toward LCCs (Nurhidayat et al., 2023).

We "found that technological self-efficacy positively affects attitude towards the LCCs. "Technological self-efficacy refers to individuals' ability to use digital technology (Capistrano et al., 2023). Thus, passengers with high technological self-efficacy would have a positive attitude toward LCCs (Chow et al., 2022). Padmaningrum et al. (2024) noted that LCCs can reduce costs by digitally offering online facilities such as booking, check-in, and other travel arrangements (Islam, 2023). However, researchers believe that passengers who are comfortable using technology appreciate these online facilities (Ogegbo et al., 2024). On the other hand, passengers with low technological self-technology prefer personalized services (Nyman et al., 2022). Therefore, their attitudes

toward online facilities would be low (Wachukwu et al., 2023).

We "found passenger loyalty positively affects attitude towards LCCs." Maulana et al. (2024) noted that consumers with a pleasant experience with LCCs are more loyal to them (Karaağaoğlu & Gündüz, 2023). Moreover, LCCs that offer rewards and frequent flyer benefits increase passengers' loyalty (Erdağ et al., 2024). Furthermore, passengers' perception of belonging to an LCC increased their loyalty (Herjanto et al., 2022). Additionally, passengers' loyalty toward an LC depends on "price, convenience, and service quality." (Kethüda et al., 2023). These aspects individually and collectively positively affect passenger attitudes towards LCCS.

We "found airline reputation positively affects attitude towards LCCs." Researchers believe that "reliable and trustworthy" LCCs increase their reputation (Chand et al., 2024). Consequently, passengers develop a positive attitude towards such LCCs (Herjanto et al., 2022). Moreover, researchers assert that passengers develop a positive attitude towards LCCs with a strong reputation for "customer service and overall quality" (Chang & Ku, 2023). In contrast, passengers would have negative attitudes toward LCCs with poor reputations despite offering lower prices than competitors (Kim & Hwang, 2023).

We "found air safety insignificantly affects attitude towards the LCCs." Many antecedents affect passengers' attitudes toward LCCs. However, studies have noted that airline safety is the most important antecedent (Koharudin & Simarmata, 2024). Moreover, LCCs with a strong safety reputation increase passengers' confidence, leading to positive attitudes toward them (Thongkruer & Wanarat, 2023). On the other hand, safety concerns adversely affect passengers' attitudes toward LCCs, even if they offer lower fares than competitors (Herjanto et al., 2022). Researchers noted that airlines that compromise on safety to reduce costs would promote negative attitudes (Chand et al., 2024).

We "found passenger satisfaction mediates price and attitude towards LCCs." Koharudin and Simarmata (2024) assert that passengers' perception of the price of LCCs being reasonable and fair positively affects their satisfaction (Karaağaoğlu & Gündüz, 2023). As a result, this satisfaction enhances passengers' attitudes toward LCCs (Chand et al., 2024). On the other hand, if passengers believe that the prices of LCCs are too high, it will reduce their satisfaction, leading to negative attitudes toward LCCs (Du, 2024).

We "found passenger satisfaction mediates access of passengers and attitude towards LCCs." Researchers believe that enhancing passengers' access to LCCs can increase their satisfaction (Erdağ et al., 2024). Passenger access includes "ease of booking, convenient

flight schedules, and affordable fares." All of these factors individually and collectively affect passenger satisfaction (Karaağaoğlu & Gündüz, 2023). Thus, when passengers experience high access levels, their satisfaction increases (Xue & Ylagan, 2024). As a result, their attitudes towards LCCs increase positively (Bagwell & Kellerman, 2023). On the other hand, limited access reduces passengers' satisfaction levels, leading to negative attitudes toward LCCs (Lin, 2022).

We "found passenger satisfaction mediates technological self-efficacy and attitude towards LCCs." Technological self-efficacy refers to individuals' ability to use digital technology (Brents Jr et al., 2024). Thus, passengers with high technological self-efficacy would be more satisfied, leading to a positive attitude toward LCCs (Aamir et al., 2023). In contrast, Kim and Cho (2024) assert that passengers with low technological self-efficacy would be less satisfied, leading to negative attitudes towards LCCs (Fuyane, 2021).

We "found passenger satisfaction mediates passenger loyalty and attitude towards LCCs." Airline passengers with positive experiences with LCCS are loyal to them (Angulo-Cabanillas, 2024). Thus, researchers believe this satisfaction enhances passenger loyalty and increases their attitudes toward LCCs (Pan & Truong, 2021). On the other hand, passengers with low loyalty toward LCCs are often not satisfied (Aamir et al., 2023). As a result, they develop low attitudes toward LCCs (Wungrotjanarut, 2020). Many past studies noted that loyalty, directly and indirectly (through satisfaction), affects attitudes toward LCCs (Kim & Cho, 2024).

We "found passenger satisfaction mediates airline reputation and attitude towards LCCs." Researchers assert that passengers are satisfied with highly reputed LCCs (Koharudin & Simarmata, 2024). This satisfaction leads to positive attitudes toward LCCs (Karaağaoğlu & Gündüz, 2023). In contrast, passengers are dissatisfied with poorly reputed LCCs (Dike et al., 2024), resulting in negative attitudes toward LCCs (Bagwell & Kellerman, 2023).

We "found passenger satisfaction insignificantly mediates airline safety and attitude towards LCCs." Koharudin and Simarmata (2024) assert that customers are highly satisfied with LCCs with a reputation for safety (Bagwell & Kellerman, 2023). As a result, this positively affects their attitudes toward LCCs (Erdağ et al., 2024). On the contrary, passengers are unsatisfied with LCCs' poor safety record (Herjanto et al., 2022). This dissatisfaction leads to a negative attitude toward LCCs (Bagwell & Kellerman, 2023).

Conclusion

Airlines worldwide have launched LCCs to make traveling more affordable for those who cannot afford high travel costs. LCCs also increase airlines' viability, contribute significantly to economic development, and generate employment. This study has proposed and tested six direct and six mediating hypotheses. We collected the data from local Pakistani travelers. We found that "low prices, access of passengers, technological efficacy, passenger loyalty, and airline reputation positively affect attitudes toward LCCs." The study highlighted that airline safety insignificantly affects attitudes toward LCCs. We also "examined the mediating role of passenger satisfaction between the above antecedents and attitudes towards" LCCS. The study accepted all the mediating relationships except Hypothesis 12: "Passenger satisfaction mediates airport safety and attitudes towards LCCs."

Implications

The pricing strategy of low-cost carriers (LCCs) has disrupted the conventional aviation industry's business model (Nurhidayat et al., 2023). LCCs offer significantly lower fares, attracting price-sensitive customers and stimulating demand (Du et al., 2024). The traditional carriers must reduce fares to remain competitive (Syahailatua et al., 2022). The increased access to passengers by LCCs has increased the demand for budget-conscious and leisure travelers (Karaağaoğlu & Gündüz, 2023). As a result, the LCCS market has increased significantly in recent years (Kanrak et al., 2024). The traditional airline has also adopted LCC's business model to remain competitive by offering budget-friendly options and altering route networks to compete (Kaffash & Khezrimotlagh, 2023).

The technological self-efficacy of LCCs has streamlined processes, reduced costs, and increased customer engagement (Capistrano et al., 2023). Traditional carriers must also focus on technological self-efficacy to reduce costs and stay competitive (Chow et al., 2022). By adopting passenger loyalty programs, LCCs have become highly competitive (Ogegbo et al., 2024). Their revenues have increased significantly and achieved long-term sustainability (Nyman et al., 2022). Thus, traditional airlines must also improve their loyalty programs to attract and retain customers (Wachukwu et al., 2023).

In recent years, LCCs have built a strong reputation for reliability and efficiency (Chand et al., 2024). As a result, they receive good reviews from the satisfied customers (Herjanto et al., 2022). Traditional airlines must improve their reputation to remain competitive (Chang & Ku, 2023). Researchers believe a strong safety record reinforces passengers' confidence and increases loyalty (Kim & Hwang, 2023). Thus, while cost-cutting, airlines must not ignore safety protocols, crew training, and aircraft maintenance (Shrago, 2024). Past studies suggest that a single safety incident can tarnish airlines' reputations

and trigger regulatory scrutiny (Lee et al., 2022).

Limitations and Future Research

The study used six antecedents: "prices, access of passengers, technological efficacy, passenger loyalty, airline reputation, and airline safety." Other studies may incorporate antecedents such as "Low fares, limited amenities, single-class seating, and point-to-point routes in their studies." We used "passenger satisfaction" as the mediator." Other studies may use "airline management, crew scheduling, and revenue management as mediators." We did not use any moderator; other studies may use "operation managers, customers' services and quality control as moderates." We focused on local passengers. We advise others to focus on international travelers.

Annexure 1

Constructs and Items Used in the Study
Low-Cost Carriers (LCCs)
LCCs1. The ticket prices of LCCs are reasonable
LCCs2. LCCs offer convenient flight schedules
LCCs3. The check-in process for LCCs is efficient.
LCCs4. The customer service of LCCs is responsive and helpful.
LCCs5. The overall experience with LCCs is satisfying
Price
PR1. The ticket prices of LCCs are affordable.
PR2. LCCs offer competitive pricing compared to traditional airlines
PR3. The extra charges for services (e.g., baggage, food) on LCCs are reasonable.
PR4. I am willing to pay a premium for additional services on LCCs.
PR5. The price transparency of LCCs is satisfactory.
Access to Passenger
AP1. LCCs provide easy access to booking and purchasing tickets online.
AP2. The check-in process for LCCs is convenient and accessible.
AP3. LCCs offer accessible and affordable transportation to a wide range of destinations.
AP4. The airport facilities and services provided by LCCs are accessible and convenient.
AP5. LCCs provide clear and accessible information about their services and policies.
AP6. LCCs offer accessible and convenient payment options.
AP7. Overall, I find LCCs accessible and convenient for my travel needs.
Technological Efficacy
TE1. I am confident that by using technology, I can complete tasks efficiently.
TE2. I can quickly learn new technologies and adapt to changes.
TE3. I am effective in using technology to communicate with others.
TE4. I can troubleshoot technical issues and find solutions.
TE5. I am comfortable using technology to access and manage information.
TE6. Overall, I believe I am technologically proficient and effective.
Passenger Loyalty
PL1. I am likely to choose this airline for my next flight.
PL2. I am satisfied with the overall service provided by this airline.
PL3. I feel a strong sense of loyalty to this airline.
PL4. I will pay a premium to fly with this airline.
PL5. I recommend this airline to friends and family.
PL6. I am committed to continuing to use this airline's services.
PL7. Overall, I am extremely loyal to this airline.

Airline Reputation
AR1. This airline has a strong reputation for safety.
AR2. I know his airline for its high-quality service.
AR3. This airline is reliable and punctual.
AR4. This airline has a good reputation for handling customer complaints.
AR5. I perceive this airline as a leader in the industry.
AR6. Overall, this airline has a positive reputation.
Airline Safety Bravo and Vieira (2019)
ARS1. This airline prioritizes safety above all else.
ARS2. I feel safe when flying with this airline.
ARS3. This airline has a good safety record.
ARS4. This airline's crew is well-trained and prepared for emergencies
ARS5. The aircraft is well-maintained and in good condition.
ARS6. Overall, I trust this airline to ensure my safety.
Passenger Satisfaction
PS1. I am satisfied with the overall service provided by this airline.
PS2. The check-in process was efficient and convenient.
PS3. The flight attendants were friendly and attentive.
PS4. The aircraft was clean and well-maintained.
PS5. The in-flight entertainment options were satisfactory.
PS6. Overall, I am satisfied with my travel experience with this airline.

References

Aamir, S., Atsan, N., & Khan, M. S. (2023). Going digital with multisided platforms: Assessing the innovation adoption process from the perspectives of travel agents. *Tourism and Hospitality Research,* 1467-1493.

Akram, M. W., Abbas, A., & Khan, I. A. (2022). Effects of perceived value, service quality and customer trust in home delivery service staff on customer satisfaction: Evidence from Pakistan. *International Journal of Management Research and Emerging Sciences, 12(4),* 1011-1037.

Ali, A., & Iqbal, H. (2024). The effect of passenger satisfaction on relationship between price, assurance, responsiveness and reliability. *Voyage Journal of Economics & Business Research, 3(1),* 27-44.

Ali, A., Asad, H. T., Akram, M., Asad, H. B., & Suleman, A. (2024). Impact of safety risk management, airport personnel competence, and operational management on airline performance. *Annals of Business Analytics, 1(01)*. 1-17.

Angulo-Cabanillas, L. (2024). Jorge Castillo-Picón[1], C. Nagadeepa2 (), Ibha Rani[2], Luis Angulo-Cabanillas[3], Rosa Vilchez-Vásquez, Jorge Manrique-Cáceres[1] and Wendy July Allauca-Castillo[1]. In *Technology and Business Model Innovation: Challenges and Opportunities: Proceedings of the International Conference on Business and Technology (ICBT2023). (Vol. 1, p. 81)*. Springer Nature.

Ardini, L., Mani, L., Aras, M., Bellafania, C., & Adlianto, R. P. (2022). The roles of service quality, perceived price and satisfaction to passenger's loyalty: A study of full service national airline carriers of Indonesia. *Linguistics and Culture Review, 6(S1),* 615-630.

Arul, P., & Tahir, M. (2023). The effect of social media on customer relationship management; a case of airline industry customers. *International Journal of Management & Entrepreneurship Research, 5(6),* 360-372.

Ashiq, R., & Hussain, A. (2024). Exploring the effects of e-service quality and e-trust on consumers'e-satisfaction and e-loyalty: insights from online shoppers in Pakistan. *Journal of Electronic Business & Digital Economics, 3(2),* 117-141.

Bagwell, T. J., & Kellerman, P. (2023). Enhancing customer satisfaction in the airline industry through service quality: a comparison between legacy airlines and low-cost airlines. *Asian Journal of Tourism Research, 2(1),* 67-77.

Bravo, A., & Vieira, D. R. (2019). A systematic review of the civilian airline industry: towards a general model of customer loyalty. *International Journal of Business and Data Analytics, 1(2),* 156-183.

Brents Jr, R. G., Winter, S. R., Gawron, V., & Keebler, J. R. (2024). Intention to complain about unmanned aircraft system noise: A structural equation analysis. *Technology in Society, 76,* 1024-1050.

Capistrano, E. P., Gomez, M. M. E., & Isleta, A. P. M. (2023). Examining trust, self-efficacy, and technology acceptance in the Philippines'e-commerce sectors. *Information Development,* 1008-10333.

Chand, P. K., Tandon, U., Jhamb, D., & Mittal, A. (2024). The mediating role of customers' emotional attachment in enhancing service excellence and repurchase intentions of low-cost carrier airlines. *International Journal of Business Excellence, 32(1),* 66-84.

Chang, K. Y., & Ku, E. C. (2023). Discount or prestige: E-reputation, compatibility, and continued mobile apps usage intention of low-cost carriers. *Journal of Tourism and Services, 14(26),* 73-91.

Chen, C. F., & Chen, F. S. (2017). Examining the effects of airline service quality on passenger loyalty. *Journal of Air Transport Management, 59,* 241-248.

Chen, C. F., & Chen, F. S. (2022). Examining the relationships between airline reputation, passenger satisfaction, and loyalty. *Journal of Air Transport Management, 98,* 1022-1045.

Chow, Y. T. H., Li, C. H., Mak, S. L., Li, S. P., Tong, P. S., Fan, C. K., & Keung, K. L. (2022). How do full-service carriers and low-cost carriers passengers perceived service dimensions, passengers' satisfaction, and loyalty differently? An empirical study. *Journal of Industrial Engineering and Management, 15(4),* 587-613.

Cooper, D. R., & Schindler, P. S. (2020). *Business Research Methods (14th ed.)*. McGraw-Hill Education.

Creswell, J. W. (2019). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th Ed.)*. Sage Publications.

Dike, S. E., Davis, Z., Abrahams, A., Anjomshoae, A., & Ractham, P. (2024). Evaluation of passengers' expectations and satisfaction in the airline industry: an empirical performance analysis of online reviews. *Benchmarking: An International Journal, 31(2),* 611-639.

Du, P., Xu, L., Luo, R., & Hou, M. (2024). Competing with low cost carrier in a sustainable environment: airline ticket pricing, carbon trading, and market power structure. *Sustainability, 16(2),* 885-1002.

Efthymiou, M., & Christidis, P. (2023). Low-Cost Carriers route network development. *Annals of Tourism Research, 101,* 1036-1058.

Erdağ, T., Erdoğan, U., & Pınar, R. İ. (2024). Digital transformation in cabin crew department:: a comparative qualitative research in FSC and LCC airlines. *Revista Rosa dos Ventos-Turismo e Hospitalidade, 16(3)*-999-1028.

Erturgut, R., & Gürler, H. E. (2023). The effect of airline passengers' satisfaction on loyalty: Do region and airline carrier matter? A Meta-analysis Study. *Transportation in Developing Economies, 9(2),* 1111-1139.

Eshaghi, M. S., Afshardoost, M., Lohmann, G., & Moyle, B. D. (2024). Drivers and outcomes of airline passenger satisfaction: a meta-analysis. *Journal of the Air Transport Research Society,* 1000-1034.

Farooq, S., Zulqurnain, M., Majid, M. B., & Shafqat, S. Z. (2023). Impact of airline service quality and safety perception on airline brand loyalty: Mediating role of passenger expectation. *Pakistan Journal of Humanities and Social Sciences, 11(4),* 4170-4183.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with unobservable variables and measurement error. *Journal of Marketing Research, 18(1),* 39–50.

Fuyane, N. (2021). The importance of service attributes between low-cost and full-service carrier customers: a case of airline type hybridisation. *African journal of hospitality, tourism and leisure, 10(6),* 1741-1757.

Global Economy (2021), {Available}. https://www. The global economy.com /Pakistan / Airline passengers/

Gualini, A., Martini, G., & Porta, F. (2024). Are low cost carriers airfares still lower? A comparison with full service carriers in Europe. *Journal of the Air Transport Research Society, 2,* 299-320.

Hair, J. F., Jr., Ringle, C. M., & Sarstedt, M. (2022). *Advanced issues in partial least squares structural equation modeling* (PLS-SEM). Springer.

Hassan, S., & Suki, N. M. (2022). Managing customer citizenship behavior in aviation sector through relational benefits: Mediating role of relationship quality. *Frontiers in Psychology, 13,* 917-9140.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43,* 115–135.

Herjanto, H., Amin, M., Okumus, F., & Cobanoglu, C. (2022). Airline service: Low-cost-carriers (LCCs) failure and passenger emotional experience. *Tourism Review, 77(3),* 945-963.

Islam, M. N. (2023). Factors affecting adoption of self-service E-ticketing technology: A study on heritage sites in Bangladesh. *Heliyon, 9(3),* 712-7138.

Islam, S., Usman, M., & Junaid, D. (2023). Service quality influence on customer satisfaction and brand loyalty: An empirical study on Pakistan airline industry. *KASBIT Business Journal, 16(1),* 198-228.

Ismat, S., Alyani, M. A., Khan, M. I. M., Yasir, W., & Alyani, A. A. (2023). Factors Affecting Consumer Brand Loyalty in Pakistan. *Bulletin of Business and Economics (BBE), 12(3),* 855-860.

Javid, M. A., Abdullah, M., & Ali, N. (2022). Travelers' perceptions about ride-hailing services in Lahore: An extension of the theory of planned behavior. *Asian Transport Studies, 8,* 1000-1013.

Kaffash, S., & Khezrimotlagh, D. (2023). US network and low-cost carriers' performance in response to COVID-19: Strictness of government policies and passengers' panic. *Research in Transportation Business & Management, 46,* 1008-1034.

Kaffash, S., & Khezrimotlagh, D. (2023). US network and low-cost carriers' performance in response to COVID-19: Strictness of government policies and passengers' panic. *Research in Transportation Business & Management, 46,* 1008-1031.

Kanchana, W., S., Zhou, F., Voon, B. W. N., Lu, L., & Tan, R. S. E. (2024). Elevating brand loyalty: Deciphering the impact of airline service quality and customer satisfaction in Bangkok's aviation industry: Case study low-cost airlines. *Journal of Infrastructure, Policy and Development, 8(8),* 561-583.

Kanrak, M., Lau, Y. Y., Fu, X., Ling, X., Chen, Q., & Traiyarach, S. (2024). Characterizing the low-cost carrier network in Southeast Asia: a complex network analysis. *Transportmetrica A: Transport Science,* 1-18.

Karaağaoğlu, N., & Gündüz, Ş. (2023). Full-Service Carrier (FSC) vs Low-Cost Carrier (LCC): Purchasing Decision-Making Process of Passengers. *Journal of Aviation, 7(3),* 365-375.

Kasim, K. O., Winter, S. R., Liu, D., Keebler, J. R., & Spence, T. B. (2021). Passengers' perceptions on the use of biometrics at airports: A statistical model of the extended theory of planned behavior. *Technology in Society, 67,* 1018-1043.

Kethüda, Ö., Dil, E., & Öncü, M. A. (2023). The antecedents of economy-class passenger loyalty the moderating role of airline business models: full-service and low-cost airlines. *Istanbul Business Research, 52(3),* 543-563.

Khan, M. B., Afridi, F. K., & Arif, M. (2024). Impact of SERQUAL Model on the customer citizenship behavior in the airline services companies of Pakistan: Mediating role of behavioral intention. *CARC Research in Social Sciences, 3(2),* 250-257.

Kim, S., & Hwang, J. (2023). Airline csr and quality attributes as driving forces of passengers' brand love: comparing full-service carriers with low cost carriers. *Sustainability, 15(9),* 1-17.

Kim, S., & Lee, S. (2022). The effect of airline reputation on passenger satisfaction and loyalty. *Journal of Hospitality and Tourism Research, 46(1),* 34-46.

Kim, Y., & Cho, W. (2024). The effect of airline's ESG management on corporate reputation, corporate image, and relationship continuance intention. *Global Business & Finance Review, 29(5),* 1460-1487.

Kock, N. (2022). PLS-SEM: A critique and some suggestions for improvement. *Journal of Business Research, 145,* 1124-1134

Koharudin, M., & Simarmata, J. (2024). Analysis of factors causing low-cost carrier airlines' customer satisfaction at Soekarno Hatta Airport. *Dinasti International Journal of Digital Business Management, 5(4),* 703-715.

Lee, W. S., Tang, R., Moon, J., & Song, M. (2022). The structural relationship between a low-cost carrier's service experience, corporate social responsibility, brand love, and reuse intention: The case of Southwest Airlines. *Journal of Air Transport Management, 102,* 1022-1056.

Lin, H. F. (2022). The mediating role of passenger satisfaction on the relationship between service quality and behavioral intentions of low-cost carriers. *The TQM Journal, 34(6),* 1691-1712.

Mandasari, N. F., Radjab, E., Ashdaq, M., & Nadir, M. (2022). Building loyalty through education on passenger trust in low cost airlines indonesia, the role of service quality and passenger satisfaction. *QALAMUNA: Jurnal Pendidikan, Sosial, dan Agama, 14(2),* 1025-1040.

Maulana, A. D., Najmudin, N., & Sudarto, S. (2024). The influence of brand image on passenger loyalty through acceptance value study on low cost carrier airline passengers in Yogyakarta. *International Journal of Business and Quality Research, 2(03),* 55-68.

Nizam, K., Liaqat, O., Saleem, H., Haq, F. U., & Masood, H. (2022). The influence of customer values and brand identification on brand loyalty and purchase Intention. *International Journal Of Global Economics and Finance (IJGEF), 1(2),* 41-52.

Nurhidayat, A. Y., Widyastuti, H., Sutikno, S., & Upahita, D. P. (2023, October). Impact of introducing medium-speed rail on low-cost carrier air transport demand for Jakarta-Semarang. In *AIP Conference Proceedings (Vol. 2846, No. 1).* AIP Publishing.

Nwachukwu, D., Azuonwu, B. E., Nwador, C. A., Dike, L. B., & Origbo, H. (2023). Self-service technology adoption and post-purchase intentions of deposit money banks customers in Port Harcourt. *International Journal of Management Sciences, 10(1),* 175-211.

Nyman, A. L., Jivani, S., Jazwa, A., Heath, E., Redmon, P. B., Sinha, B., ... & Eriksen, M. P. (2022). Student tobacco use, secondhand smoke exposure, and policy beliefs before and after implementation of a tobacco-free campus policy: Analysis of five US college and university campuses. *Preventive Medicine, 163,* 1072-1094.

Ogegbo, A. A., Penn, M., Ramnarain, U., Pila, O., Van Der Westhuizen, C., Mdlalose, N., ... & Bergamin, P. (2024). Exploring pre-service teachers' intentions of adopting and using virtual reality classrooms in science education. *Education and Information Technologies,* 1-18.

Özdemir, S., & Şimşek, S. (2017). An analysis of price sensitivity in the context of low-cost carriers. *Journal of Air Transport Management, 58,* 123-132.

Padmaningrum, D., Mani, L., Retnaningtyas, T. A., Sujatmiko, T., Subejo, S., & Widiyanti, E. (2024). A perspective of technology acceptance model on the agriculture extension staffs using cyber extension. *Agrisocionomics: Jurnal Sosial Ekonomi Pertanian, 8(3),* 621-640.

Pan, J. Y., & Truong, D. (2021). Low cost carriers in China: passenger segmentation, controllability, and airline selection. *Transportation, 48,* 1587-1612.

Ra, M. J. (2024). Theoretical discussion of the characteristics of low-cost airlines and the ripple effects on the air transportation market. *The Korean Journal of Aerospace and Environmental Medicine, 34(1),* 30-35.

Radomir, L., & Ringle, C. M. (2022). Progress in partial least squares structural equation modeling use in marketing research in the last decade. *Journal of Business Research, 147,* 112-125.

Rana, F., & Ameen, Y. (2023). Factors affecting travel intention of citizens of Pakistan via premium bus services: A Case Study. *Pakistan Journal of Humanities and Social Sciences, 11(2),* 1498-1509.

Reginio, M., & Kankaew, K. (2023). What do we choose to fly with low-cost airlines: thais' passenger perspective. *Jurnal Minds: Manajemen Ide dan Inspirasi, 10(1),* 73-84.

Ringle, C. M., & Sarstedt, M. (2022). Partial least squares structural equation modelling (PLS-SEM): A comprehensive guide. Springer. doi: 10.1007/978-3-031-06937-8

Rönkkö, M., & Cho, E. (2022). An updated guideline for assessing discriminant validity. *Organizational Research Methods, 25(1),* 6-14.

Sarstedt, M., Ringle, C. M., & Hair, J. F., Jr. (2022). Partial least squares structural equation modeling: A review and directions for future research. *International Journal of Research in Marketing, 39(2),* 291-309.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students (8th Ed.)*. Pearson Education Limited.

Sekaran, U., & Bougie, R. (2020). *Research Methods For Business: A Skill-Building Approach (8th ed.)*. Wiley.

Shahid, A. (2022). Airline industry of Pakistan: Challenges and prospects. *Graduate Journal of Pakistan Review (GJPR), 2(2),* 1-17.

Sharma, S., & Kushwaha, B. P. (2024). Customer value theory: sensitivity to price, emotional values, social relationship supports, and values conscious organic products purchase intention. *International Journal of Indian Culture and Business Management, 32(1),* 38-58.

Shrago, B. (2024). The spirit effect: Ultra-low cost carriers and fare dispersion in the US airline industry. *Review of Industrial Organization,* 1-31.

Singh, S. K., & Kapoor, S. K. (2017). Passenger satisfaction with low-cost carriers: A comparative study. *Journal of Transportation Management, 31(2),* 147-158.

Syahailatua, T. A. S., Fahrudin, A. F., Arubusman, D. A., & Suhendra, A. (2022). The effect of service quality, brand image and fairness of prices on the decision to purchase low-cost carrier (lCC) airline tickets. *Advances in Transportation and Logistics Research, 5,* 567-581.

Thongkruer, P., & Wanarat, S. (2023). The relationship between air travel service quality and factors of theory of planned behavior: evidence from low-cost airlines in Thailand. *Sustainability, 15(11),* 1-15.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46(2),* 186-204.

Watandar, A., Ahmad, A., Naizi, A., & Nazari, M. W. (2023). A study on Afghanistan Pakistan transit trade agreement. *Journal of Management and Service Science (JMSS), 3(2),* 1-13.

Wungrotjanarut, C. (2020). Analyzing passengers'behavioral intention to use low cost carriers in THAILAND. *Journal of Global Business Review. 22(2),* 40-64.

Xue, Y., & Ylagan, A. D. (2024). Airline services, passenger satisfaction and loyalty among passengers of China Southern Airline. *International Journal of Research, 12(10),* 57-72.

Zhang, H., Czerny, A. I., Grimme, W., & Niemeier, H. M. (2023). The big three EU low cost carriers before and during the Covid-19 pandemic: Network overlaps and airfare effects. *Research in Transportation Economics, 97,* 1012-1035.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2020). *Business Research Methods (11th ed.)*. Cengage Learning.

Zou, L., Reynolds-Feighan, A., & Yu, C. (2022). Airline seasonality: An explorative analysis of major low-cost carriers in Europe and the United States. *Journal of Air Transport Management, 105,* 1022-1048.

Zulqurnain, M., Farooq, S., Majid, M. B., & Shafqat, S. Z. (2023). Evaluating the impact of mindfulness service on air travel experience and satisfaction: A mediation and moderation model. *Pakistan Journal of Humanities and Social Sciences, 11(4),* 4184-4199.