

Analysis Of Passenger Expectations and Satisfaction in the Airline Industry Using SERVQUAL And ECT Framework

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Abstract- This paper will analyse passenger expectations and satisfaction within the airline industry by determining the important factors in influencing service perceptions, the differences between frequent and non-frequent flyers, and the possible service quality improvements. The study uses the Expectation Confirmation Theory (ECT) and SERVQUAL framework to assess the difference between the expectations and perceived service performance of the passengers. It adopted a mixed-method research design, which integrated structured survey responses on 161 airline passengers with a qualitative feedback analysis. Demographic trends, dimensions of service quality, and satisfaction ratings among passengers of various segments were analysed with the help of statistical tools. According to the results, punctuality, responsiveness of customer service, seat comfort, cleanliness of cabin, and in-flight services play a significant role in the overall satisfaction of a passenger. Comparative analysis shows that frequent flyers consider reliability and personalized services to be more important, and non-frequent flyers view comfort and cost aspects as the most important. The analysis also reveals there are significant gaps in punctuality, in-flight services and digital service integration as the main aspects that should be improved. The findings have practical implications for airline management to improve their service quality, passenger loyalty, and close expectation-performance gaps by making specific operational and service improvements.

Keywords: Airline Industry, Passenger Satisfaction, Service Quality, Expectation Confirmation Theory (ECT), SERVQUAL Framework, Frequent Flyers, Service Improvement, Customer Experience, Reliability, Punctuality.

I. INTRODUCTION

The airline sector is very important in the development and international connectivity of the world economy. Service is another area that is facing demand as competition and the demands of the passengers keep changing.

Quality has emerged as a major factor of customer satisfaction and the sustainability of airlines in the long term. Contemporary customers require reliability, punctuality, comfort, attentive customer service and digital integration throughout the travelling experience. It has been indicated in past research that passenger satisfaction and loyalty in the aviation industry are both influenced significantly by service quality [3], [6].

The expectations of the passengers and their perception of the perceived service performance are a major determinant of customer satisfaction in airlines.

The Expectation Confirmation Theory (ECT) states that satisfaction arises when the performance of the service surpasses or falls below the expectations that are set in the past [12]. Equally, according to the SERVQUAL model, dimensions of service quality such as reliability, responsiveness, assurance, empathy, and tangibles are critical and influential in influencing the perceptions of the passengers [13]. Empirical studies show that the most significant determinants of the level of satisfaction are punctuality, in-flight services, and responsiveness of the employees [7], [10].

Moreover, it has been proposed through research that passenger segments vary in their expectations of services. Reliability, efficiency, and loyalty benefits are also important to frequent flyers, but non-frequent flyers are more concerned with comfort and affordability [9]. It is imperative that airlines identify such differences so as to develop specific service strategies and enhance customer experience in general.

Even though there is an improvement in the digital technologies and digital systems of operations, the gaps between the expectations of the passengers and the perceived quality of the services still exist [8], [11]. These gaps can be tackled by systematic analysis, which will assist the airlines in improving their service performance, brand loyalty, and competitive advantage.

This paper thus aims at achieving three goals: (1) finding out major factors affecting passenger expectation and satisfaction, (2) comparing frequent and non-frequent flyers, and (3) suggesting possible areas where services can be improved.

II. LITERATURE REVIEW

Passenger satisfaction within the airline industry has been a very popular subject of research as a multidimensional variable that is affected by service quality, operational efficiency, and customer experience. Earlier studies are always consistent that service quality is one of the main factors that determine customer satisfaction and customer loyalty in the aviation markets [3], [6]. The airline industry is a very competitive industry with customers basing much of their customer retention on the perceived service performance and fulfilment of expectation.

The Expectation Confirmation Theory (ECT) offers a theoretical basis to knowledge on passenger satisfaction. ECT holds that customers develop expectations before they consume services and then evaluate the perceived performance against the expectations; when performance matches or surpasses expectations, the customer is satisfied [12]. When it comes to airline, the expectations tend to be associated with punctuality, safety, comfort in the seat, and responsiveness of employees. Lack of fulfillment of these expectations results in dissatisfaction and negative word of mouth.

The SERVQUAL model also describes service quality by five dimensions namely; reliability, assurance, responsiveness, empathy, and tangibles [13]. Reliability, especially on-time performance, has been reported to be one of the most significant factors of passenger satisfaction [7]. Research has also been keen on the role played by in-flight services,

cleanliness of the cabin and the manner in which the staff behave in forming the overall perception of the service [10], [15]. Empirical studies indicate that responsiveness and personal service have a great contribution to passenger loyalty intentions [11].

A comparison of frequent and non-frequent fliers has shown frequent travelers to value efficiency, loyalty benefits, and consistency of service delivery over occasional travelers, who value affordability and comfort [9]. Airlines can use such insights in segmentation to adopt differentiated services.

The recent research also mentions that service gaps in digital integration, grievance processing and individualized offerings are the new areas of concern in research on passenger satisfaction [8], [16]. These gaps are vital issues that need to be addressed to achieve better service quality and competitive edge in the dynamic aviation environment.

III. METHODOLOGY

This paper is a quantitative research project that is aimed at investigating the issue of factors to do with the passenger expectations and satisfaction within the airline industry. The research design is such that it should determine the major determining factors of service quality, the comparison of expectations between frequent and non-frequent flyers, and the areas that need improvement in service delivery.

(A) Research Design

The descriptive research design was used to analyze passenger perception of airline service quality in a systematic manner. Using the Expectation Confirmation Theory (ECT) theoretical bases and SERVQUAL construct, the research incorporates the theoretical basis to determine the relationship between passenger expectations, perceived service performance, and overall satisfaction. The design allows a structured comparison of the passenger segments and service dimensions.

(B) Data Collection

Primary data were gathered by means of a structured questionnaire and that is via an online survey scheme. The questionnaire consisted of demographic variables (age, gender, frequency of travels, travel class, and

purpose of travel) and service quality related issues which showed punctuality, responsiveness of customer service, cabin cleanliness, in-flight services, and customer grievance issues. A total of 161 valid responses were obtained. Academic journals, industry reports, and previous empirical research were used as a source of secondary data to facilitate theoretical development and comparative analysis.

(C) Sampling Technique

The stratified sampling was used to ensure the representation of various types of passengers, especially frequent and non-frequent flyers. The respondents were categorised on the basis of the number of times they travel (rarely, occasionally, and frequently travelling passengers) and this allowed comparative analysis of service expectation across segments.

(D) Data Analysis Methods.

The demographics and the level of satisfaction were summarized using descriptive statistical analysis. The methods used in percentages analysis and frequency distribution were used to determine prevailing factors in quality of service. The results were determined based on the interpretation of ECT and SERVQUAL dimensions in order to find gaps in performance in services.

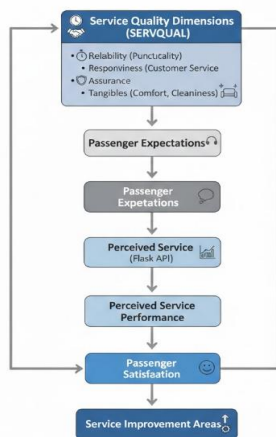


Fig. 1. Conceptual framework integrating SERVQUAL dimensions and expectation confirmation theory.

IV. RESULTS AND DISCUSSION

A. Demographic Profile

A total of one hundred and sixty one valid answers were employed. The following demographics were used to form the sample, 26% (42 respondents) of the sample was aged 1825, 22% (36 respondents) was aged 2635, 28% (45 respondents) was aged 3645 and 20% (33 respondents) was above 45 years. The sample that was less than 18 years was smaller (approximately 3).

The percentage of gender distribution was relatively equal, and 75 males (47 percent), 72 females (45 percent), and 14 respondents (8 percent) did not want to disclose their gender.

In terms of the frequency of travelling, 38 (24) travelled infrequently (12 times a year or less), 74 respondents (46) travelled frequently (3 times a year or less) and 48 respondents (30) travelled frequently (6 times a year or more). This segmentation has allowed comparative analysis of frequent and non-frequent passengers.

On their choice of travel preference travel class, 82 respondents (51) favoured travelling in an economy class, 51 respondents (32) travelled in a premium economy and 27 respondents (17) travelled in a first class. The number of respondents in leisure travel was 64 (40 percent) and family visits was 52 (32 percent) and business travel was 44 (27 percent).

This was a representative population that guaranteed that there were typology of passengers and objective-based segmentation analysis.

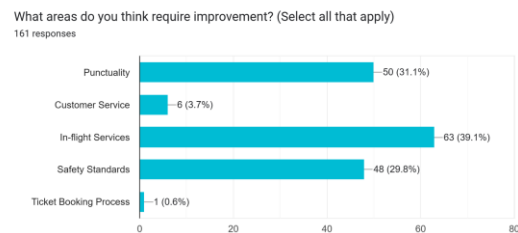


Figure 2. Key Factors Requiring Service Improvement

B. Major Problems that affect the Satisfaction of the Passengers.

The overall satisfaction findings were that 65 respondents (40) respondents said that they were satisfied, 48 respondents (30) identified themselves as neutral and 47 respondents (29) respondents said that they were dissatisfied. The average level of satisfaction was approximately 4.2 out of 5.

On enquiring them on what they thought needed to be improved, 48 respondents (30 percent), in-flight services, 41 respondents (25 percent), safety standards, 41 respondents (25 percent) and the check-in process were 31 respondents (19 percent). These results mean that the present level of passenger satisfaction is credibility and accountability of the services.

C. Comparative Analysis: Frequent and Non-Frequent Flyers.

More sensitive to punctuality, digital efficiency, and grievance resolution speed, frequent flyers (30% of sample) were found to be more sensitive. Conversely, non-frequent flyers (70% of sample) were much more concerned with comfort and general travel experience.

The degree of dissatisfaction among frequent travelers tended to be higher when the delay in operations was noticed, which indicates that the reliability of the service offers greater influence to repeatable customers and segments based on loyalty.

D. Service Quality Gaps.

The greatest expectation-performance gaps were experienced in:

- Punctuality and reliability
- Sensitivity in grievance management.
- Digital service integration
- Personalization of services

These gaps directly influence the perceived service quality and suggest the areas that airlines need to focus their improvement efforts.

In-flight services were found to be the most prominent area that needed a considerable enhancement (63 responses, 39.1%), then it was punctuality (50 responses, 31.1%), and safety standards (48 responses, 29.8%), as shown in Fig. 2.

The responsiveness of customer service (6 responses, 3.7) and ticket booking process (1 response, 0.6) were reported as relatively minor issues. These results show that the reliability of operations and the quality of service delivery are still key factors of passenger dissatisfaction.

V. DISCUSSION

This study findings affirm the important role of service quality when developing passenger satisfaction in the airline industry. Coming up with a similar research as the prior study [7], [10], punctuality was observed as a decisive measure of satisfaction which reveals the importance of reliability in the SERVQUAL model. Delays and schedule disruptions significantly affect the perceived service performance of the frequent flyers, who attach a lot of importance on the operation efficiency. This is in agreement with earlier empirical researches which have concluded that reliability is the most effective predictor of airline service evaluation [13]. The fact that the in-flight services represent the most popular category, which is found to be enhanced, is even more correlated with the research that is aimed at tangible service dimensions and quality of the onboard experience [6], [15]. The moderate to high scores of overall satisfaction are accompanied by the existence of the dissatisfaction segments, meaning that there is the gap between expectations and performance, which is consistent with the Expectation Confirmation Theory [12]. Where actual performance and expectations do not concur, less satisfaction ensues despite the fairly satisfactory quality of service. The comparative analysis revealed that the frequent flyers were more sensitive in terms of punctuality, digital integration, and responsiveness to grievance whereas the non-frequent flyers were sensitive to comfort and travel experience as a whole. The findings align with the findings of the segmentation-based researchers who discovered that frequent travelers are more demanding based on loyalty and less sensitive to inconsistency in service delivery [9]. Such form of differentiation renders it obvious why airlines ought to adopt service differentiation strategies in contrast to uniform models of service provision. Overall, the results imply that improving operational stability, becoming more digital, and offering tailor-made services are

crucial to bridging the gap in the expectations and strengthening a loyal customer base in the long-term.

VI. CONCLUSION

The study has examined the expectation and passenger satisfaction in the airline industry with identification of key factors that influence the service quality, variation in pattern of expectation between the frequent and non frequent flyers and areas that need to be refined. The findings confirm that passenger satisfaction is primarily determined by punctuality, in-flight services, level of safety, and customer service responsiveness. Reliability, in its turn, emerged to be the most crucial dimension that affected service perception in general. The comparative analysis revealed that there was a lot of difference in the segments of passengers. The most frequent flyers were more demanding when it came to operational efficiency, digitalization, and grievance management, though non-frequent flyers were more concerned about comfort and the experience of their travels. Such differences highlight the importance of segmented service strategies to the airline management. The general satisfaction levels were moderate, but the research established that there existed notable disparities in anticipations and performance particularly in the aspects of operational trustworthiness and in-flight service delivery. These gaps may be addressed through managing time more, more digital services, personalized services and providing intensive customer services, which can significantly strengthen passenger loyalty and competitiveness. This research will provide useful implications that may assist airlines to improve the relationship between service delivery and evolving customer expectations by incorporation of theoretical perspectives of the survey findings that can be positively reflected in long-term customer satisfaction.

REFERENCES

- [1] R. L. Oliver, "A cognitive model of the antecedents and consequences of satisfaction decisions," *J. Mark. Res.*, vol. 17, no. 4, pp. 460–469, 1980.
- [2] A. Parasuraman, V. A. Zeithaml, and L. L. Berry, "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality," *J. Retail.*, vol. 64, no. 1, pp. 12–40, 1988.
- [3] J. Smith and L. Thomas, "Understanding customer preferences in airline services: A statistical analysis," *J. Aviat. Stud.*, vol. 12, no. 4, pp. 45–60, 2023.
- [4] J. An and Y. Noh, "Airline customer satisfaction and loyalty: Impact of in-flight service quality," *Serv. Bus.*, vol. 3, no. 3, pp. 293–307, 2009.
- [5] T. Curtis, "Satisfaction with airline service quality: Frequent vs non-frequent flyers," *Int. J. Aviat. Res.*, vol. 15, no. 2, pp. 40–55, 2012.
- [6] H. Jiang, "Service quality, customer satisfaction and loyalty in China's airline industry," *J. Air Transp. Manag.*, vol. 57, pp. 65–75, 2016.
- [7] E. Park, "Determinants of customer satisfaction with airline services," *Transp. Res. Part A Policy Pract.*, vol. 133, pp. 112–124, 2019.
- [8] H. Ban and H. Kim, "Understanding customer experience and satisfaction through airline passengers' online reviews," *Sustainability*, vol. 11, no. 15, Art. no. 4066, 2019.
- [9] J. Ali, A. Jusoh, A. Q. Abro, and M. A. Abro, "Service quality and its impact on customer satisfaction and loyalty in the airline industry: A PLS-SEM approach," *J. Contemp. Issues Bus. Gov.*, vol. 27, no. 3, pp. 273–290, 2021.
- [10] N. Batarlienè, "Assessment of factors determining airline consumer loyalty," *Sustainability*, vol. 15, no. 2, Art. no. 1320, 2023.
- [11] L. Dell'Olio, "Passengers' perception of airlines' services: Addressing quality and satisfaction," *J. Air Transp. Manag.*, vol. 103, Art. no. 102229, 2025.
- [12] "Drivers and outcomes of airline passenger satisfaction: A meta-analysis," *Transp. Res. Interdiscip. Perspect.*, vol. 11, Art. no. 100522, 2024.
- [13] "Service quality and customer satisfaction in Nigerian air transport," *J. Air Transp. Manag.*, vol. 50, pp. 12–20, 2016.

- [14] International Air Transport Association, “Annual report on global air passenger trends,” IATA, Montreal, QC, Canada, 2024.
- [15] Airline Industry Reports, “Passenger satisfaction trends and airline service improvement factors,” Aviation Insights Publication, 2024.