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MODELING THE IMPACT OF SERVICE QUALITY ON PASSENGER SATISFACTION IN AIR TRANSPORT USING LOGISTIC REGRESSION

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Abstract

This study examines how various dimensions of service quality influence passenger satisfaction in air transport, applying binary logistic regression to quantify the contribution of individual service attributes. The analysis includes Online Boarding, Seat Comfort, Legroom Service, Inflight Entertainment, Inflight Wi-Fi Service, Check-in Service, Baggage Handling, Food and Drink, Gate Location, and On-board Service. The results show that Online Boarding, Legroom Service, Inflight Entertainment, and On-board Service have the strongest association with

satisfaction, while Food and Drink, Gate Location, and Baggage Handling exhibit smaller but statistically significant effects. Although the model demonstrates overall stability, its accuracy is lower among passengers with extremely positive or negative evaluations. Future research should integrate additional explanatory variables and advanced analytical techniques to improve predictive performance.

Keywords: Customer Satisfaction, Service Quality, Air Transport, Logistic Regression, Modeling

1. INTRODUCTION

In air transport, passenger satisfaction arises from a combination of service quality factors that shape perceptions of the travel experience and influence long-term loyalty to airlines, as demonstrated in prior research (Agarwal and Gowda, 2020; Karamata, Krasavac and Soldić-Aleksić, 2017). Passengers constitute a heterogeneous group that includes business travelers, leisure travelers, non-traveling users such as accompanying family members and suppliers, as well as internal users, including employees and partners. Each category interacts with the service in a distinct way and expresses specific expectations. Their overall experience is formed through dimensions such as reliability, safety, staff responsiveness, empathy, and tangible service elements, all of which jointly contribute to the perceived quality of air transport services (Clemes et al., 2008; Hu and Huang, 2011).

Contemporary developments in the airline industry highlight several service aspects that increasingly shape passenger experience. Inflight Wi-Fi has become an integral component of the onboard offer, while user-friendly online booking systems substantially facilitate travel planning (Erdil and Yildiz, 2011; Rula et al., 2018). Additional attributes, including food and beverage quality, cabin cleanliness, seat comfort, available legroom, and the range of entertainment options, play an important role in determining satisfaction levels (Marcelino, Castro and Ferreira, 2019; Mohd Suki and Mohd Suki, 2017; Yabacı and Sarıoğlan, 2018).

Previous research has examined a wide range of determinants of customer satisfaction, including reliability (Clemes et al., 2008), safety and hygiene (Mohd Suki and Mohd Suki, 2017), and the efficiency of baggage handling and check-in procedures (Farooq et al., 2018; Parasuraman, Zeithaml and Berry, 1988). In addition, several studies have analysed approaches to measuring service quality, including SERVQUAL and structural equation modelling, and their influence on loyalty (Hu and Huang, 2011; Sun, 2019). Although the existing body of literature provides important insights, most studies investigate individual service aspects in isolation and therefore do not offer a comprehensive understanding of how different dimensions jointly influence passenger satisfaction.

This paper proceeds from the assumption that improving specific dimensions of service quality is essential for attaining higher levels of customer satisfaction and enhancing the competitive position of airlines. The empirical analysis employs binary logistic regression to quantify how Seat Comfort,

Legroom Service, Inflight Service, Inflight Wi-Fi Service, Ease of Online Booking, Check-in Service, Baggage Handling, Cleanliness, Food and Drink, Inflight Entertainment, and On-board Service affect the likelihood that passengers will report satisfaction with their travel experience. The primary objective is to identify the most influential factors and thereby support targeted interventions in the service process.

The paper is structured into six sections. Section 2 presents the theoretical framework and the systematic literature review, including the selection criteria and a structured overview of previous studies. Section 3 describes the dataset and the methodological approach, including the selection of service quality determinants and the binary logistic regression model. Section 4 reports the results for thirteen service attributes and provides model diagnostics. Section 4.1 offers an interpretation of the findings, while Section 4.2 examines model verification. Section 5 provides the discussion, and Section 6 concludes with limitations and directions for future research.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

The airline industry operates in an environment characterised by continuous transformation, where technological progress and evolving passenger expectations contribute to increasingly demanding service standards (Karamata, Krasavac and Soldić-Aleksić, 2017). Customer satisfaction in this context depends on the relationship between expectations formed prior to travel and the experience realised during service delivery. Actual satisfaction therefore stems from the perceived difference between expected and experienced performance (Bellizzi, Eboli and Mazzulla, 2020). As contemporary passengers have access to extensive information and can easily compare airlines across numerous service attributes, their perception of quality plays a decisive role in the choice of carrier and in the formation of brand loyalty (Law, Zhang and Gow, 2022). To sustain a competitive position, airlines regularly evaluate key performance dimensions, with particular emphasis on service quality and operational productivity (Şimşek and Demirbağ, 2017).

2.1. Users and Service Dimensions in Airline Transport

According to the SERVQUAL and SERVPERF models, customer experience in air transport is shaped by several fundamental dimensions, including reliability, responsiveness, safety, tangibility and empathy (Clemes et al., 2008). The AIRQUAL framework further expands this perspective by incorporating elements related to terminal facilities, staff performance and the overall corporate image of the airline (Hu and Huang, 2011). Passenger perceptions are additionally influenced by physical and technical characteristics of the service, such as legroom, cabin layout and the range of available in-flight amenities. Travellers increasingly expect consistency in service delivery, with reliability frequently identified as a dominant determinant of satisfaction (Law, Zhang and Gow, 2022).

In contemporary aviation, digitalisation and the adoption of smart technologies—such as online reservations, self-service check-in systems, entertainment options and connectivity services play an important role in simplifying travel procedures and improving the user experience (Mohd Suki and Mohd Suki, 2017; Rula et al., 2018). At the same time, aspects related to food quality and cabin hygiene remain integral to passengers' overall evaluation of service performance (Yabacı and Sarıoğlan, 2018).

Passenger satisfaction is therefore shaped not only by the transport function itself but also by a broad set of complementary services that collectively influence the perception of value. Understanding how these elements interact is essential for refining airline strategies and strengthening customer loyalty (Farooq et al., 2018; Jiang and Zhang, 2016). Passengers continuously evaluate service quality throughout the entire travel process, including the efficiency of check-in procedures, baggage handling, comfort during the flight, access to connectivity and the quality of food and beverage offerings (Jin and Kim, 2022). Figure 1 provides an overview of the principal dimensions that structure the passenger experience in air transport, encompassing physical and technical features, digitalisation, comfort and additional amenities encountered during the journey.

Figure 1 Service Quality Attributes Affecting Passenger Experience in Commercial Air Transport

Source: Author's conceptual illustration based on literature review.

2.2. Method and Selection Criteria

A Systematic Literature Review (SLR) was undertaken to examine the relationship between airline service quality and passenger satisfaction, with particular attention to operational and experiential aspects of air transport. The review followed a structured, five-phase procedure based on predefined criteria for identifying, selecting and analysing relevant studies. The primary bibliographic sources consisted of Scopus, Web of Science and ScienceDirect, while Google Scholar was used as an additional search channel to ensure coverage of studies not indexed in the major databases. The search was conducted between September and November 2024 and relied on combinations of relevant keywords, Boolean operators and filtering techniques to secure comprehensive retrieval of pertinent literature.

The first phase involved selecting scientific papers published between 2014 and 2025, enabling the review to capture contemporary analytical approaches and recent developments in the study of passenger satisfaction. The second phase concentrated on work addressing service quality in commercial aviation, including dimensions such as reliability, responsiveness, safety, tangibility and empathy, together with operational and technical features of airline processes. These features encompass check-in and boarding procedures, catering and entertainment services, baggage handling, cabin cleanliness and the availability of digital services such as in-flight connectivity. Their importance lies in the fact that they simultaneously shape the travel experience and influence operational performance and competitiveness. The third phase focused on studies examining passenger satisfaction, particularly those investigating perceived service quality, loyalty and repurchase intentions, thereby highlighting the connection between operational reliability and experiential aspects of travel. The fourth phase reviewed methodological approaches employed across the selected literature, including logistic regression, linear and multiple regression, Structural Equation Modelling, factor analysis, cluster analysis and the Multi-criteria Satisfaction Analysis model. These approaches permit the assessment of how individual service dimensions contribute to overall satisfaction and support decision-making regarding operational and service improvements. In the fifth phase, the objectives of the reviewed studies were analysed, with emphasis on operational and managerial goals such as improving passenger satisfaction, optimising the travel process, identifying user preferences and refining airline strategies, including resource allocation in both ground and in-flight operations. The inclusion criteria comprised publication period (2014–2025), thematic relevance to airline service quality, methodological suitability (quantitative or mixed-method designs), passengers as the primary unit of analysis and availability of the full text in English.

Table 1 summarises the analysed literature in chronological order, illustrating how research in this field has evolved and organising the contributions according to publication year, examined service quality dimensions, reported satisfaction outcomes, analytical methods and research domains.

Table 1 Systematic Review of Scientific Studies on Service Quality and Customer Satisfaction in the Airline Industry

CRITERION I (Ref and Year of Publication)	CRITERION II (Service Quality)	CRITERION III (Customer Satisfaction)	CRITERION IV (Applied Methods)		Research Objective
			Logistic Regression	Other methods	
(Oghojafor & Adekoya, 2014)	x	x		Analytic Hierarchy Process (AHP)	Enhancement of satisfaction with airport services.
(Jiang & Zhang, 2016)	x			Probit Model	Enhancement of loyalty and resource optimization.
(Omollo, 2016)	x	x		Descriptive research method, Correlation analysis, Regression analysis	Increasing passenger satisfaction.
(Ahmadpour, Robert, & Lindgaard, 2016)	x			Questionnaires, interviews and data analysis	Understanding factors influencing passenger comfort and discomfort during flights.
(Jeeradist, Thawesaengskulthai, & Sangsuwan, 2016)	x			SERVQUAL	Enhancement of service quality while maintaining safety.
(Bogicevic, Yang, Bujisic, & Bilgihan, 2017)	x		Visual data mining, logistic regression		Investigation of airline service quality attributes.
(Victoria et al., 2017)	x			Analysis of modern systems and safety approaches in aviation	Improvement of flight quality and travel safety.
(Patel & D'Cruz, 2018)	x			Literature review and descriptive model	Examination of how individual characteristics, travel context, and interaction with the environment affect comfort.
(Tsafarakis, Kokotas, & Pantouvakis, 2018)		x		MUSA (Multicriteria Satisfaction Analysis)	Identification of key dimensions for improving service quality.
(Sun, 2019)	x	x		Multiple Regression Analysis	Improvement of service quality.
(Agarwal & Gowda, 2020)	x	x		Regression Analysis	Examination of the effect of service quality on customer satisfaction and loyalty.
(Bellizzi, Eboli, & Mazzulla, 2020)	x	x		Stated Preference (SP)	Investigation of passenger expectations regarding airline service quality to support better business strategies.

(Allen et al., 2020)	x	x		PCA and SEM analysis	Identification of latent factors affecting service quality at smaller airports.
(Park & Almanza, 2020)	x	x		Online survey, factor analysis	Investigation of passenger perceptions of aircraft cleanliness.
(Tahanisaz & Shokuhyar, 2020)	x	x		Clustering Analysis	Understanding passenger preferences and improving services.
(Park, Lee, & Nicolau, 2020)	x			Data analysis, Tobit model	Analysis of the impact of various service quality attributes on passenger satisfaction.
(Walia, Sharma, & Mathur, 2021)		x		Structural Equation Modeling (SEM)	Improvement of customer experience and development of strategies to meet customer needs.
(Law, Zhang, & Gow, 2022)	x	x		Structural Equation Modeling (SEM)	Improvement of service quality and motivation for repeat ticket purchases, as well as the development of customer trust strategies.
(Eboli, Bellizzi, & Mazzulla, 2022)	x	x		Literature review, data analysis	Study on the quality of airline services based on passenger perceptions over the past decade.
(Kosovac, Medić, Kurešepi, & Neimarlija, 2025)	x	x	x		Quantifying the impact of flight delays on passenger satisfaction.

Source: Author's compilation based on a systematic literature review.

User satisfaction and service quality have become central themes in contemporary research within the airline industry. Through diverse methodological approaches, scholars aim to identify the service elements that most strongly shape the passenger experience and to support the development of more effective strategies for targeted improvement. For instance, the study by Omollo (2016) examines service quality and user satisfaction using descriptive and regression techniques, with the primary goal of enhancing overall passenger experience. Similarly, Agarwal and Gowda (2020) apply regression analysis to explore how service quality affects satisfaction and loyalty, underscoring the importance of maintaining consistent standards to foster long-term customer retention. Bellizzi, Eboli and Mazzulla (2020) extend this line of inquiry by employing the Stated

Preference method to analyse passenger expectations, thereby enabling airlines to align service strategies with articulated user needs. At a managerial level, Oghojafor and Adekoya (2014) utilize the Analytic Hierarchy Process (AHP) to support decision-making in prioritizing improvements in airport services, with the intention of increasing user satisfaction. A similar strategic orientation characterizes the work of Law, Zhang and Gow (2022), who apply Structural Equation Modeling (SEM) to assess the influence of service quality on customer trust and motivation for repeated travel. The SEM approach is also central to Walia, Sharma and Mathur (2021), who explore long-term satisfaction-building strategies. Allen et al. (2020) combine SEM with Principal Component Analysis (PCA) to identify latent dimensions of service quality, particularly in smaller airports − a contribution relevant to discussions on regional development and network decentralization.

In addition to these quantitative approaches, Sun (2019) and Tahanisaz and Shokuhyar (2020) apply multiple regression analysis and cluster techniques to explore the relationship between passenger perceptions and specific service attributes. While Sun (2019) aims to identify areas for improving service quality, Tahanisaz and Shokuhyar (2020) extend the analysis through a segmentation model that enables airlines to tailor services to differentiated market groups. The personalization perspective is further developed by Tsafarakis, Kokotas and Pantouvakis (2018), who apply the MUSA approach to identify service dimensions that require priority attention.

In the post-pandemic context, hygienic conditions have become particularly salient in passengers' assessments of service quality. Park and Almanza (2020) offer valuable insights by analysing perceptions of aircraft cleanliness and identifying the aspects of hygiene that passengers consider most relevant to their travel experience. The study examines how physical conditions − such as seat cleanliness, restrooms and overall cabin appearance − influence perceptions of safety, satisfaction and trust. Other research focuses on physical and emotional comfort: Ahmadpour, Robert and Lindgaard (2016) investigate the sources of in-flight comfort and discomfort using surveys and interviews, while Patel and D'Cruz (2018) employ a descriptive model to explain how personal characteristics, travel context and interactions with the environment shape the perception of comfort. A focused examination of service attributes is provided by Bogicevic et al. (2017), who rely on visual data mining and logistic regression to identify the features passengers value most, such as efficiency, clarity of information, staff performance and cabin comfort. However, the authors treat service quality largely as a set of independent components, without exploring how these dimensions jointly influence overall satisfaction. It is within this conceptual space that the present study positions its contribution, applying binary logistic regression to quantify the combined effects of multiple service attributes on passenger satisfaction.

In parallel, research that adopts a safety-oriented perspective includes Victoria et al. (2017), who analyse modern aviation safety systems to propose improvements in flight quality, and Jeeradist, Thawesaengskulthai and Sangsuwan (2016), who utilize the SERVQUAL model to enhance service quality while

upholding safety as a fundamental operational principle. A further stream of research centres on modelling customer behaviour. Jiang and Zhang (2016) employ a Probit model to assess opportunities for improving loyalty and optimizing resources, while Park, Lee and Nicolau (2020) use the Tobit model to evaluate how specific service characteristics influence satisfaction. Eboli, Bellizzi and Mazzulla (2022) provide a comprehensive review of service quality perceptions over the past decade, summarizing main developments and offering a basis for comparison with current practices.

The review highlights a broad methodological diversity in analysing service quality and satisfaction. Approaches include regression analyses (Agarwal & Gowda, 2020; Omollo, 2016; Sun, 2019); structural equation modelling and PCA (Allen et al., 2020; Law et al., 2022; Walia et al., 2021); multi-criteria decision techniques such as MUSA (Tsafarakis et al., 2018) and AHP (Oghojafor & Adekoya, 2014); cluster models (Tahanisaz & Shokuhyar, 2020); and econometric approaches such as Probit and Tobit modelling (Jiang & Zhang, 2016; Park et al., 2020). Some studies rely on descriptive or correlational techniques (Omollo, 2016) to identify behavioural patterns. Despite this variety, there remains a notable lack of empirical models that examine a broader set of service attributes simultaneously and assess their joint influence on overall satisfaction. Binary logistic regression has been explicitly applied in only a few studies, such as Bogicevic et al. (2017) and Kosovac et al. (2025), where the focus was limited to individual factors. For example, Kosovac et al. (2025) show that each minute of flight delay reduces the likelihood of satisfaction by approximately 0.34% (OR ≈ 0.9966; 95% CI: 0.9963–0.9970), with diagnostic tests confirming the model's validity. However, this narrow operational focus does not capture the complex structure of the passenger experience.

The present study advances this body of work by applying binary logistic regression to a large and diverse sample of more than 100,000 passengers, allowing for the simultaneous examination of a wide range of service attributes: Seat Comfort, Legroom Service, In-flight Service, In-flight Wi-Fi Service, Ease of Online Booking, Check-in Service, Baggage Handling, Cleanliness, Food and Drink, In-flight Entertainment, On-board Service, Gate Location and Online Boarding. This approach provides a comprehensive and statistically grounded insight into the factors that shape passenger satisfaction and offers a robust basis for formulating targeted recommendations for service improvement. Beyond addressing gaps in existing literature, the study also opens new avenues for future empirical investigation, with the potential to enhance both theoretical understanding and practical applications in contemporary air transport.

3. DATA AND METHODOLOGY

The dataset employed in this study was sourced from the publicly available Kaggle repository under the title Airline Passenger Satisfaction (accessed November 2024). It comprises 103,904 individual observations, offering a sufficiently large empirical basis for examining factors that influence the passenger

experience. In its original form, the dependent variable satisfaction is coded dichotomously, with respondents classified as either “satisfied” or “neutral or dissatisfied.” The dataset does not differentiate between neutral evaluations and explicitly negative assessments. Although this structure restricts the application of multinomial models that distinguish three or more levels of satisfaction, the present analysis adheres to the binary classification provided. From a managerial standpoint, grouping neutral and dissatisfied respondents is conceptually appropriate, as both categories reflect the absence of a positive evaluation and signal the need for service enhancement. Even so, the lack of a distinct neutral category is recognised as an inherent limitation of the dataset, suggesting that future research may benefit from more finely graded measures of satisfaction.

The independent variables represent a range of service quality attributes, measured on numerical scales and suitable for quantitative modelling of their influence on satisfaction outcomes. The analysed service dimensions include Inflight Wi-Fi Service, Ease of Online Booking, Food and Drink, Online Boarding, Seat Comfort, Inflight Entertainment, On-board Service, Legroom Service, Baggage Handling, Check-in Service, Inflight Service and Cleanliness.

3.1. Selection Criteria for Service Quality Determinants

The selection of service quality determinants in this study is grounded in three mutually reinforcing criteria. First, the variables were identified with reference to those most consistently emphasized in the scholarly literature on airline service quality, particularly within established conceptual models such as SERVQUAL, SERVPERF and AIRQUAL. These frameworks typically highlight dimensions such as reliability, responsiveness, tangibility, empathy and core inflight service components, which collectively shape passenger perceptions.

Second, the selected determinants reflect findings from recent empirical research on the digitalisation of airline services. Studies examining online booking processes, check-in efficiency, inflight connectivity and onboard service performance have underscored the importance of these elements in contemporary airline operations. Incorporating such variables ensures that the model aligns with current industry practices and emerging service trends.

Third, the final set of variables was determined by the structure of the publicly available dataset (Kaggle, accessed November 2024), which includes a standardized range of passenger-rated service attributes measured on a Likert scale. This ensures methodological consistency and enables robust quantitative analysis.

Based on these criteria, the analysis incorporates the following determinants throughout the empirical sections of the paper: Inflight Wi-Fi, Ease of Online Booking, Online Boarding, Seat Comfort, Legroom Service, Inflight Entertainment, On-board Service, Inflight Service, Food and Drink, Check-in Service, Cleanliness and Baggage Handling. The use of a unified set of variables enhances conceptual clarity and supports transparency in the examination of passenger satisfaction.

Regression analysis represents a statistical approach used to investigate the relationship between a dependent variable and one or more independent variables. It is widely applied across scientific disciplines, with simple and multiple linear regression among the most frequently used forms (Juraj, 2017; Lončar, 2021; Švoger, 2022). To assess the influence of service quality factors on passenger satisfaction in air transport, this study employs binary logistic regression as the principal analytical method. Logistic regression does not require normally distributed errors, which makes it suitable for categorical outcomes. Its coefficients reflect changes in the probability of an event occurring for each one-unit change in the predictor (Švoger, 2022). An important advantage of logistic regression is the possibility of interpreting the relative influence of predictors through estimated coefficients and odds ratios. In addition, a variety of statistical tests − including the Wald test and Chi-square test − allow for the evaluation of predictor significance (Hosmer Jr., Lemeshow & Sturdivant, 2013).

Ensuring the reliability and validity of the logistic regression results requires the verification of core statistical assumptions. The dependent variable in this study, passenger satisfaction, is treated as a binary category ("satisfied" versus "neutral/dissatisfied"), consistent with the requirements of logistic regression. Each case in the dataset represents an individual passenger (103,904 observations), which satisfies the assumption of independence of observations. Another important assumption concerns the absence of multicollinearity among independent variables. Multicollinearity was examined using the Variance Inflation Factor (VIF), which assesses the degree of correlation among predictors; elevated VIF values signal redundancy and may undermine coefficient interpretability. The diagnostic procedure was conducted in Minitab using a multiple regression model, with the results summarised in Table 2.

Table 2 Assessment of Multicollinearity of Independent Variables Using VIF Coefficients

Variable	**VIF value**
Ease of Online Booking	1.69
Gate Location	1.35
Food and Drink	2.15
Online Boarding	1.65
Seat Comfort	2.32
Inflight Entertainment	3.68
On-board Service	1.74
Legroom Service	1.28
Baggage Handling	1.88
Check-in Service	1.2
Inflight Service	2.03
Cleanliness	2.82

Source: Author's processing using Minitab output.

Commonly accepted guidelines consider VIF values above 10 indicative of serious multicollinearity that could compromise model validity. In this study, none of the predictors exceeded a value of 5, indicating that multicollinearity does not pose a substantial concern. The highest value, recorded for Inflight Entertainment (VIF = 3.68), remains within an acceptable range for regression modelling.

4. RESULTS AND ANALYSIS

To quantify the impact of different service factors on passenger satisfaction in air transport, a binary logistic regression was applied to the analysed dataset. In the context of increasing passenger expectations and intensifying competition in the airline industry, a clear understanding of the determinants that directly influence satisfaction is essential for improving the customer experience and optimising airline services.

The study focuses on a broad set of service-related attributes that shape the passenger experience, including Seat Comfort, Legroom Service, Inflight Service, Inflight Wi-Fi Service, Ease of Online Booking, Check-in Service, Baggage Handling, Cleanliness, Food and Drink, Inflight Entertainment, On-board Service, Gate Location and Online Boarding. The analysis shows that, among the total of 103,904 passengers in the dataset, 45,025 reported that they were satisfied with the provided service, while 58,879 were either neutral or dissatisfied (Table 3). This distribution indicates that more than half of the respondents do not express clearly positive satisfaction with their flight experience, which underscores the importance of a detailed examination of the factors that shape their evaluations.

Table 3 Distribution of Respondents According to the Level of Satisfaction with the Passenger Experience in Air Transport

Variable	Value	Count
Satisfaction	Satisfied	45,025
	Neutral or dissatisfied	58,879
Total		103,904

Source: Author's processing using Minitab output.

Further quantification of the influence of individual service aspects using binary logistic regression makes it possible to assess which factors contribute most strongly to the probability of passenger satisfaction and thus provides a basis for targeted strategic improvements in the airline industry (Table 4).

Table 4 Deviance Analysis of Independent Service Quality Variables in Predicting Passenger Satisfaction

Factors	DF	Adj Dev	Adj Mean	Chi-Square	P-Value
Regression	**13**	**48179**	**3706.1**	**48178.92**	**0**
Inflight Wi-Fi Service	1	745	744.7	744.69	0
Ease of Online Booking	1	526	526.1	526.14	0
Gate Location	1	16	15.9	15.93	0
Food and Drink	1	76	76.3	76.31	0
Online Boarding	1	11956	11955.5	11955.55	0
Seat Comfort	1	229	228.6	228.58	0
Inflight Entertainment	1	903	903.5	903.48	0
On-board Service	1	880	880.5	880.49	0
Legroom Service	1	2832	2831.7	2831.71	0
Baggage Handling	1	19	19.4	19.44	0
Check-in Service	1	702	702.1	702.05	0
Inflight Service	1	1	1.00	0.77	0.381
Cleanliness	1	1	1.20	1.23	0.267

Source: Author's processing using Minitab output.

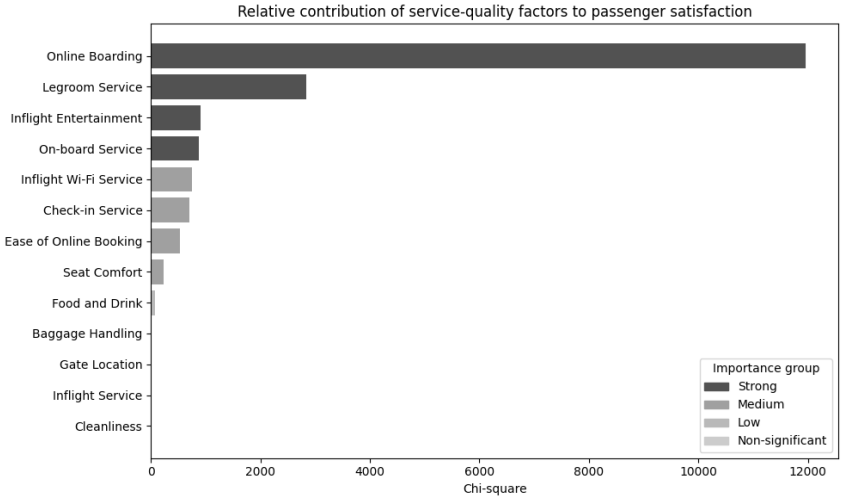
Table 4 is central for assessing the quality and reliability of the logistic regression model, because it shows how effectively the set of predictors explains variation in the dependent variable, passenger satisfaction. The deviance test makes it possible to evaluate the extent to which the included variables contribute to explaining differences in satisfaction. A high residual deviance may indicate the existence of additional factors that influence satisfaction but are not incorporated in the current model (Perišić, Nakić and Beljo, 2024).

The largest contribution to the model comes from Online Boarding, which records the highest Chi-Square statistic (11955.55, P = 0.000). These results indicate that the efficiency and simplicity of Online Boarding have a very pronounced role in shaping a positive perception of service. Since contemporary passengers increasingly prefer digital and automated processes, upgrading the speed and reliability of Online Boarding can substantially improve the overall experience.

Legroom Service (2831.71, P = 0.000) also shows a very strong contribution, confirming the importance of spatial comfort during flights. This result suggests that passengers, especially on longer routes, are highly sensitive to the available legroom and that restrictions in this regard can adversely affect their perception of service quality. Adjustments in seat configuration and an increase in legroom are therefore likely to lead to noticeable improvements in the travel experience.

Inflight Entertainment (903.48, P = 0.000) and On-board Service (880.49, P = 0.000) are likewise confirmed as important contributors to satisfaction. These findings show that passengers attach considerable importance to the quality of entertainment provided during the flight, including the variety of films, music and interactive content, as well as to the quality of interaction with cabin crew and the performance of service activities on board.

Figure 2 Chi-square contribution of service-quality factors to passenger satisfaction



Source: Author's processing using Python

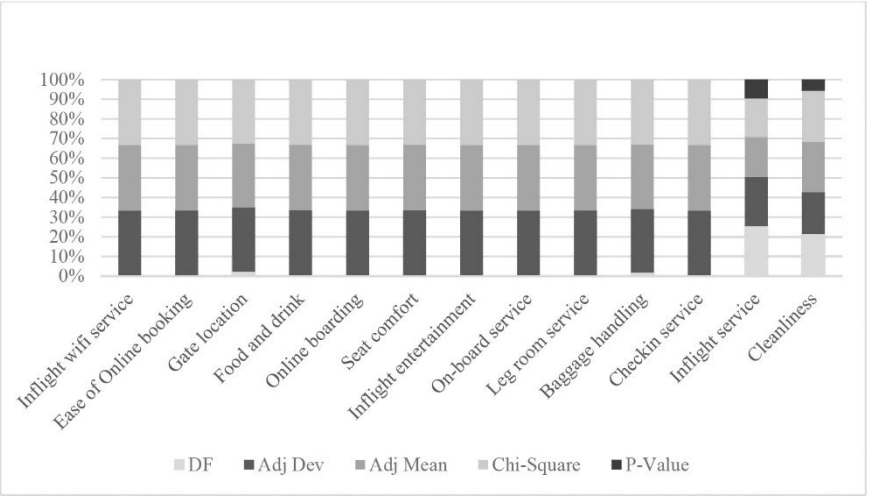
Service elements such as Inflight Wi-Fi Service (744.69, P = 0.000), Check-in Service (702.05, P = 0.000), Ease of Online Booking (526.14, P = 0.000) and Seat Comfort (228.58, P = 0.000) show a moderate but significant effect on passenger satisfaction (Figure 2). Although these attributes are important, their influence is somewhat weaker than that of Online Boarding, Legroom Service and Inflight Entertainment. Improvements in these areas can contribute to strengthening the overall experience, but changes in them are unlikely to have the same magnitude of effect as adjustments in the most influential factors. A simple and transparent online booking process and an efficient check-in procedure can reduce initial travel-related stress and contribute to a smoother journey, while Wi-Fi access allows passengers to remain connected, which is particularly valuable for business travellers. Seat Comfort contributes to physical well-being, but in comparative terms it may be perceived as less critical than spatial arrangements in the cabin, such as legroom.

Food and Drink (76.31, P = 0.000), Gate Location (15.93, P = 0.000) and Baggage Handling (19.44, P = 0.000) exhibit the smallest, although still statistically significant, influence on satisfaction (Figure 2). These results indicate that these aspects do form part of the overall evaluation of service, but that passengers do not assign them the same importance as efficiency of Online Boarding, available legroom or the quality of Inflight Entertainment. By contrast, Inflight Service (0.77, P = 0.381) and Cleanliness (1.23, P = 0.267) do not have a statistically significant effect on satisfaction in this model. This finding may indicate that these service elements are already maintained at a level that passengers consider acceptable, so that additional improvements would not substantially change their perceptions. It is also possible that these dimensions are

overshadowed, in evaluation terms, by attributes that have a more immediate influence on comfort, speed and convenience of travel.

The presented results suggest that further analyses could involve grouping passengers according to their preferences and expectations in order to adapt service bundles more precisely to different segments and thus further refine service design.

Figure 3 Comparative presentation of predictor contributions to user satisfaction through principal statistical measures (DF, Adjusted Deviance, Adj Mean, Chi-Square, and P-values)



Source: Author's processing using Minitab output

Additional analysis of the Adjusted Deviance and Adjusted Mean Deviance parameters confirms the internal consistency of the model and the importance of individual predictors in explaining variation in passenger satisfaction (Figure 3). For each predictor, the Adjusted Deviance values are almost identical to the corresponding Chi-Square statistics, which points to stable model estimates and robust inference. This correspondence suggests that the contribution of specific service attributes is not a consequence of random fluctuations, but that the predictors systematically influence the dependent variable.

The degrees of freedom (DF) for each predictor equal 1, which is expected in binary logistic regression, where the separate effect of each independent variable is assessed. The total model deviance (48,179) compared with the error deviance (94,010) confirms that the included predictors significantly improve the prediction of passenger satisfaction relative to an intercept-only model. The relative differences in Adjusted Deviance values support earlier conclusions about the relative importance of the analysed factors. Online Boarding and Legroom Service again stand out with the highest values, which underlines their dominant influence, whereas Gate Location and Food and Drink record substantially lower deviance values, indicating a more limited contribution,

despite statistical significance. Table 5 provides a concise overview of the overall model fit through Deviance R-Squared and Adjusted Deviance R-Squared.

Table 5 Deviance R-Sq and Adjusted Deviance R-Sq of the binary logistic regression model

Deviance	Deviance
R-Sq	**R-Sq(adj)**
33.88%	33.87%

Source: Author's processing using Minitab output.

The Deviance R-Sq of 33.88 percent indicates that the included predictors explain slightly more than one third of the variation in passenger satisfaction. This result suggests that service-related factors exert a substantial influence on the customer experience, but that additional elements not included in the model, such as individual preferences, flight duration, ticket price or loyalty to a particular airline, may also affect satisfaction. The very similar value of the Adjusted Deviance R-Sq (33.87 percent) indicates that the model is not overfitted to the sample but retains stable predictive performance and may be generalised to a wider passenger population. The adjusted coefficient is particularly useful when models include a larger number of predictors, as it mitigates the risk of overestimating the contribution of individual variables.

After identifying the variables that significantly influence passenger satisfaction, an analysis of the regression coefficients enables the quantification of their effects. The coefficients represent logarithmic odds ratios (log-odds) and indicate how a one-unit change in each independent variable alters the probability that a passenger will be satisfied (Table 6).

Table 6 Logistic regression coefficients for service quality factors in predicting customer satisfaction

Term	Coef	SE Coef	VIF
Constant	**-7.6514**	**0.0565**	
Inflight Wi-Fi Service	0.26709	0.00988	2.34
Ease of Online Booking	-0.22547	0.00993	2.65
Gate Location	0.02926	0.00733	1.34
Food and Drink	-0.07839	0.009	2.02
Online Boarding	0.8479	0.00847	1.39
Seat Comfort	0.13929	0.00921	1.97
Inflight Entertainment	0.3433	0.0115	2.96
On-board Service	0.24752	0.0084	1.56
Legroom Service	0.3694	0.00704	1.16
Baggage Handling	0.04088	0.00927	1.69
Check-in Service	0.18656	0.00708	1.14
Inflight Service	-0.00854	0.00974	1.85
Cleanliness	0.0113	0.0102	2.45

Source: Author's processing using Minitab output.

The estimated coefficients confirm the conclusions drawn from the deviance analysis regarding the most influential factors. Online Boarding (0.8479) has the strongest positive effect, which again underscores the central importance of a fast and efficient boarding process. Legroom Service (0.3694) and Inflight Entertainment (0.3433) also exhibit pronounced positive contributions, indicating that spatial comfort and the availability of entertainment options during the flight significantly shape subjective evaluations of the experience. On-board Service (0.2475), Inflight Wi-Fi Service (0.2671), Check-in Service (0.1866) and Seat Comfort (0.1393) show moderate positive effects, suggesting that the quality of staff interactions, internet access and the organisation of procedures before boarding all contribute to satisfaction, although their impact is somewhat smaller than that of the dominant predictors. Baggage Handling (0.0409) has a positive but relatively limited influence.

Negative coefficients are obtained for Ease of Online Booking (-0.2255) and Food and Drink (-0.0784), which may signal difficulties in the booking process or dissatisfaction with catering services. These results indicate that these components of the service chain are potential weak points in the passenger journey and that improvements in the functionality of digital platforms and the quality and consistency of food and beverage offerings could reduce sources of dissatisfaction. Inflight Service (-0.0085) and Cleanliness (0.0113) do not show statistically significant effects in the model, which suggests that the existing level of these services is perceived as satisfactory and that additional improvements in these domains would not substantially change the overall evaluation. Taken together, the coefficients provide a coherent picture that is consistent with the deviance analysis and indicate where interventions are likely to yield the greatest benefits.

In logistic regression, a negative coefficient generally implies that higher values of a given predictor are associated with a lower probability of the positive outcome, in this case satisfaction. Such a pattern often reflects a misalignment between individual service components and the broader passenger journey. In practice, this can arise when a service element creates expectations that are not matched in subsequent stages, when its quality is inconsistent over time or across routes, or when it is not sufficiently integrated with other parts of the service process.

In this model, negative coefficients are obtained for Ease of Online Booking, Food and Drink and Inflight Service, each with a plausible operational interpretation. For Ease of Online Booking, the negative coefficient (-0.22547) suggests that a highly rated digital booking experience may contrast with later stages of the journey, where passengers expect other services to be equally fast, transparent and user-friendly. When this is not the case, those who initially rated the booking process positively may experience a stronger sense of mismatch with the remainder of the trip. This points to a lack of alignment between digital and operational elements, which is a frequent challenge in contemporary airline service provision.

For Food and Drink, the negative coefficient (-0.07839) indicates possible systemic issues related to the quality, availability or standardisation of catering

services. These processes are often constrained by short turnaround times, dependence on external suppliers and variability of service across different routes, which can result in noticeable fluctuations in quality. This finding identifies catering as a sensitive part of the service chain that passengers closely associate with their overall impression of the flight.

The slightly negative coefficient for Inflight Service (-0.00854) has a negligible effect size and is not statistically significant, which implies that routine interactions with cabin crew and the performance of basic procedural tasks do not substantially alter the likelihood of overall satisfaction. This typically characterises areas where service standards are stable and consistently met. The slight negative sign may also indicate that passengers sometimes rate basic service elements more favourably in situations where other parts of the journey were less satisfactory, a pattern that occasionally appears in regression modelling.

To obtain an additional quantitative measure of the influence of individual service factors, an Odds Ratio (OR) analysis was conducted. This allows the impact of a change in each predictor to be expressed in terms of the change in the odds of passenger satisfaction. Values of OR greater than 1 indicate a positive association with satisfaction, while values below 1 indicate a negative association. The estimates are presented in Table 7.

Table 7 Odds Ratios for continuous predictors in predicting passenger satisfaction

Factor	**Odds Ratio**	**95% CI**
Inflight Wi-Fi Service	1.3062	(1.2811, 1.3317)
Ease of Online Booking	0.7981	(0.7828, 0.8138)
Gate Location	1.0297	(1.015, 1.0446)
Food and Drink	0.9246	(0.9084, 0.9411)
Online Boarding	2.3347	(2.2963, 2.3739)
Seat Comfort	1.1495	(1.1289, 1.1704)
Inflight Entertainment	1.4096	(1.3783, 1.4417)
On-board Service	1.2808	(1.2599, 1.3021)
Factor	**Odds Ratio**	**95% CI**
Legroom Service	1.4469	(1.427, 1.467)
Baggage Handling	1.0417	(1.023, 1.0608)
Check-in Service	1.2051	(1.1885, 1.2219)
Inflight Service	0.9915	(0.9727, 1.0106)
Cleanliness	1.0114	(0.9914, 1.0318)

Source: Author's processing using Minitab output.

The odds ratio estimates corroborate the earlier findings and provide an interpretable measure of the magnitude of effects. Online Boarding (OR = 2.3347) shows the strongest positive association with satisfaction, meaning that, for each one-unit increase in the assessment of this service attribute, the odds of overall satisfaction increase by more than a factor of two. Legroom Service (OR = 1.4469) and Inflight Entertainment (OR = 1.4096) also display substantial positive effects,

confirming that spatial comfort and entertainment availability are central determinants of the perceived value of the flight.

Inflight Wi-Fi Service (OR = 1.3062), On-board Service (OR = 1.2808) and Check-in Service (OR = 1.2051) make a moderate positive contribution, while Baggage Handling (OR = 1.0417) has the smallest but still statistically significant influence. Ease of Online Booking (OR = 0.7981) and Food and Drink (OR = 0.9246) are associated with reduced odds of satisfaction, which is in line with their negative coefficients and points to potential shortcomings in digital reservation processes and catering services. Inflight Service (OR = 0.9915) and Cleanliness (OR = 1.0114) do not show statistically significant effects, which confirms that these aspects, in the context of this dataset and model specification, do not materially alter the probability of satisfaction.

The estimated logistic regression model provides a formal expression of the relationship between passenger satisfaction and the analysed service attributes. The probability that a passenger will report satisfaction is obtained using the logistic function:

$$\text{p (satisfied)} = \frac{\exp(Y')}{1 + \exp(Y')}$$

$$Y' = -7.6514 + 0.26709\ \text{Inflight WiFi service} - 0.22547\ \text{Ease of Online Booking}$$
$$+0.02926\ \text{Gate Location} - 0.07839\ \text{Food and Drink} + 0.84790\ \text{Online Boarding}$$
$$+0.13929\ \text{Seat Comfort} + 0.3433\ \text{Inflight Entertainment} + 0.24752\ \text{On board Service}$$
$$+0.36940\ \text{Legroom Service} + 0.04088\ \text{Baggage Handling} + 0.18656\ \text{Check in service}$$
$$-0.00854\ \text{Inflight Service} + 0.0113\ \text{Cleanliness} \quad (1)$$

This expression summarises the cumulative effect of the examined service factors on the likelihood of satisfaction and can be used as an analytical tool for scenario analysis and the evaluation of potential service improvements.

4.1. Model verification

To assess the accuracy and reliability of the logistic regression model, a set of Goodness-of-Fit tests was applied, including the Deviance test, Pearson test and Hosmer-Lemeshow test. These procedures make it possible to evaluate the extent to which the model predictions are consistent with the observed data and to identify potential limitations of the specification. The results are shown in Table 8.

Table 8 Results of Goodness-of-Fit tests for logistic regression

Test	DF	Chi-Square	P-Value
Deviance	103890	94009.88	1.000
Pearson	103890	158007.3	0.000
Hosmer-Lemeshow	8	5913.92	0.000

Source: Author's processing using Minitab output.

The Deviance test (P = 1.000) indicates that the model provides an acceptable fit to the data and confirms its general stability in predicting passenger satisfaction. In contrast, the Pearson test (P = 0.000) points to a certain degree of discrepancy between predicted and observed values, which may signal the influence of additional factors that are not explicitly included in the model. The Hosmer-Lemeshow test (P = 0.000) is particularly informative because it assesses the agreement between observed and expected frequencies across groups of passengers formed according to predicted probabilities. The low p-value suggests that discrepancies are present, especially at the lower and upper ends of the probability distribution, that is, among passengers who are very dissatisfied or very satisfied. This pattern implies that the model achieves the highest precision in the middle range of predicted probabilities, while predictions for extreme groups are less accurate. To gain a more detailed insight into the distribution of deviations across probability intervals, observed and expected values for the Hosmer-Lemeshow test were analysed by groups, as presented in Table 9.

Table 9 Observed and expected values for the Hosmer-Lemeshow test

Group	Probability Range	Observed (Satisfied)	Expected (Satisfied)	Observed (Dissatisfied or neutral)	Expected (Dissatisfied or neutral)
1	(0.000, 0.047)	1326	271.9	9064	10118.1
2	(0.047, 0.099)	971	749.8	9419	9640.2
3	(0.099, 0.169)	1106	1376.4	9285	9014.6
4	(0.169, 0.263)	1632	2226.6	8758	8163.4
5	(0.263, 0.384)	2534	3322.5	7857	7068.5
6	(0.384, 0.528)	3908	4727.5	6482	5662.5
7	(0.528, 0.681)	5830	6296.6	4560	4093.4
8	(0.681, 0.795)	8255	7678.5	2136	2712.5
9	(0.795, 0.884)	9374	8785.9	1022	1610.1
10	(0.884, 0.987)	10089	9589.3	296	795.7

Source: Author's processing using Minitab output.

The results indicate that the model predicts satisfaction most accurately within the intermediate probability range from approximately 0.384 to 0.681, where differences between observed and expected values are relatively smaller. More pronounced deviations are present at the extremes. In the first group (probability range 0.000-0.047), the model predicts 271.9 satisfied passengers, while 1,326 are observed, which suggests that the probability of satisfaction is underestimated in this segment. A similar pattern appears in the highest probability group, where the expected number of satisfied passengers is 9,589, whereas the observed number is 10,089.

These findings point to the possibility of improving predictive performance for extreme groups of passengers by refining the model specification. Potential directions include the introduction of interaction terms between service attributes, the inclusion of additional predictors such as flight duration, ticket price

or loyalty to a specific airline, and the development of segmented models designed for distinct passenger subgroups.

5. DISCUSSION

The findings of this study offer a clearer insight into the ways in which passengers assess various dimensions of airline service and the extent to which individual attributes shape their overall experience. When compared with previous research, it becomes evident that much of the existing literature provides only a partial view of passenger satisfaction, most often by examining isolated components of the travel experience, such as hygiene (Park & Almanza, 2020), physical comfort and seating (Ahmadpour et al., 2016; Patel & D'Cruz, 2018), safety procedures (Jeeradist et al., 2016), or digital services (Mohd Suki & Mohd Suki, 2017). Such a fragmented approach limits the understanding of how multiple service-related factors jointly influence passenger evaluations. In contrast, the present study incorporates a broader set of interrelated service-quality determinants within a single analytical framework, enabling a more comprehensive and realistic interpretation of the passenger experience. This approach follows the direction of studies that call for expanding the range of examined variables, although these studies, particularly those relying on PCA or SEM (Allen et al., 2020; Law et al., 2022), typically identify latent dimensions without modelling the probability of satisfaction itself. Similarly, multi-criteria methods such as MUSA (Tsafarakis et al., 2018) illustrate the relative importance of service attributes but do not quantify their direct influence on the likelihood of a positive evaluation. The logistic regression approach applied here addresses this methodological gap by estimating the joint effects of multiple determinants.

Comparisons with regional research and related service sectors further demonstrate that the importance of service quality as a determinant of user behaviour extends beyond the aviation industry. Dedić et al. (2021), analysing passengers in Bosnia and Herzegovina, show that evaluations of service quality strongly influence loyalty, which is consistent with the present findings, where process-related and interpersonal elements emerge as relevant predictors of satisfaction. A similar pattern appears in the work of Perišić Prodan et al. (2022), who find that trust, communication and staff professionalism are central drivers of satisfaction and loyalty in the luxury hotel sector, a conclusion that aligns with the role of in-flight service and procedural clarity observed in this study. Further evidence is found in Pepur and Arnerić (2015), who demonstrate that employee attitudes and interactions shape user perceptions and subsequent behavioural decisions in the financial services sector. Together, these studies point to a consistent cross-sectoral association in which the quality of service plays a prominent role in shaping user evaluations, reinforcing the interpretation of the results presented here.

Despite the detailed insights provided by the logistic regression model, several methodological considerations should be acknowledged. First, the model

does not include socio-demographic characteristics (such as age or gender), behavioural attributes (including travel purpose, frequency or travel class) or operational variables such as flight delays. This choice reflects the conceptual aim of the study: to isolate and examine the influence of service-quality dimensions in line with the SERVQUAL and AIRQUAL research tradition. Operational determinants, especially delays, have been analysed separately in previous work by the authors (Kosovac et al., 2025) and were therefore intentionally excluded here to avoid methodological overlap and maintain analytical focus. Second, the dataset structure imposes a dichotomous definition of the dependent variable, distinguishing only between "satisfied" and "neutral/dissatisfied" passengers. This limits the possibility of differentiating neutral from dissatisfied users and prevents the application of multinomial logistic regression. However, from a managerial perspective, both categories signal the need for service enhancement, which supports the adopted binary specification. Third, the Hosmer-Lemeshow test suggests that the model performs more accurately in the mid-range of predicted probabilities, with more pronounced deviations at the extremes among the most satisfied and least satisfied passengers. This pattern indicates that incorporating additional predictors, interaction effects or segmented modelling strategies could enhance predictive precision.

These limitations do not diminish the overall contribution of the study but instead point to valuable directions for future research. Further studies may benefit from integrating socio-demographic and behavioural variables, combining operational and service-related determinants within unified analytical frameworks or applying more advanced modelling strategies, such as segmented analyses or hybrid predictive models, to achieve a deeper and more comprehensive understanding of the factors that shape passenger satisfaction in air transport.

6. CONCLUSION AND IMPLICATIONS FOR FUTURE RESEARCH

The study examined the influence of a broad set of service-quality dimensions on passenger satisfaction in air transport, using binary logistic regression as the analytical framework. Its principal contribution lies in applying this method to a large and representative dataset, which made it possible to analyse multiple interrelated aspects of the passenger experience simultaneously. In contrast to earlier studies that typically focused on a limited number of service attributes or explored isolated components of the travel experience, the present model offers an integrated and empirically grounded understanding of their combined effects. In doing so, it addresses notable gaps in the literature and provides a basis for further theoretical advancements and practical improvements in airline service management.

The results show that several service components exert a particularly strong influence on passenger evaluations, with Online Boarding, Legroom Service

and Inflight Entertainment emerging as the most influential determinants of satisfaction. Online Boarding appears as the most substantial predictor, while Legroom Service, Inflight Entertainment and On-board Service also demonstrate pronounced positive effects. Other elements, such as Inflight Wi-Fi Service, Check-in Service, Ease of Online Booking and Seat Comfort, contribute meaningfully to the passenger experience, although their relative influence is smaller. By contrast, Food and Drink, Gate Location and Baggage Handling exhibit statistically significant but comparatively modest effects, suggesting that passengers view these dimensions as supportive rather than central to their overall perception of service quality. Inflight Service and Cleanliness were not statistically significant predictors, which may indicate that these aspects are already perceived as satisfactory and therefore do not substantially alter passenger evaluations.

These findings carry relevant implications for airline managers and stakeholders. Recognising which service components have the greatest influence on satisfaction enables more efficient allocation of resources and a clearer prioritisation of improvement efforts. The negative coefficients obtained for Ease of Online Booking and Food and Drink underline the need for stronger integration between digital and physical components of the travel experience. Passengers increasingly expect the simplicity and transparency of digital platforms to be reflected in equally consistent service quality during the flight. This opens opportunities for innovation, including the development of applications for monitoring meal availability, reserving special options or personalising inflight services according to individual preferences. Strengthening the coherence of the service chain can reduce dissatisfaction and improve the perceived value of the overall experience. At a strategic level, the results emphasise the importance of continuous monitoring and systematic enhancement of service processes. Improvements in boarding procedures, cabin comfort, diversification of catering options and expansion of digital services, especially Wi-Fi and entertainment offerings, have the potential to increase satisfaction, reinforce loyalty and generate a competitive advantage in the market. The combined use of data analytics, personalised services and targeted innovations could substantially raise the quality of the passenger journey.

Model evaluation through Goodness-of-Fit tests confirmed the robustness of the estimated relationships but also highlighted limitations in predicting satisfaction among passengers situated at the extremes of the satisfaction distribution. The Hosmer-Lemeshow test, in particular, indicated discrepancies for passengers who are highly dissatisfied or extremely satisfied, suggesting that additional variables not included in the current specification may be relevant.

Accordingly, future research should aim to improve predictive accuracy by incorporating additional factors such as flight duration, ticket price or airline loyalty, and by exploring more advanced analytical approaches, including interaction terms, segmented modelling and machine learning techniques. Moreover, integrating socio-demographic and behavioural variables, such as age, gender, travel purpose, travel frequency or class of service, would allow for a more

nuanced understanding of the determinants of satisfaction. Such extensions are especially relevant given that the present study deliberately excluded these attributes to isolate the effects of service-related variables.

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MODELIRANJE UTJECAJA KVALITETE USLUGE NA ZADOVOLJSTVO KORISNIKA U ZRAČNOM PRIJEVOZU PRIMJENOM LOGISTIČKE REGRESIJE

Sažetak

U istraživanju se analizira kako različite dimenzije kvalitete usluge utječu na zadovoljstvo putnika u zračnom prijevozu primjenom binarne logističke regresije za kvantificiranje doprinosa pojedinih atributa usluge. Analiza obuhvaća online *ukrcaj, udobnost sjedala, prostor za noge, zabavu tijekom leta, Wi-Fi uslugu u letu, uslugu prijave, rukovanje prtljagom, ponudu hrane i pića, lokaciju izlaza i uslugu osoblja u zrakoplovu. Rezultati pokazuju da* online *ukrcaj, prostor za noge, zabava tijekom leta i usluga osoblja u zrakoplovu imaju najjaču povezanost sa zadovoljstvom, dok hrana i piće, lokacija izlaza i rukovanje prtljagom pokazuju manje, ali statistički značajne učinke. Iako model pokazuje ukupnu stabilnost, njegova je točnost niža među putnicima s izrazito pozitivnim ili negativnim procjenama. Buduća istraživanja trebala bi uključiti dodatne objašnjavajuće varijable i napredne analitičke tehnike kako bi se poboljšala prediktivna učinkovitost.*

Ključne riječi: zadovoljstvo korisnika, kvaliteta usluge, zračni promet, logistička regresija, modeliranje.

JEL klasifikacija: C25, L93, M31, R40.