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FIDAN A.[1]

THE ESSENCE AND FORMS OF CUSTOMER SERVICE IN PASSENGER AIR TRANSPORTATION

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Formulation of the problem. The role of customer service in passenger air transportation has expanded sharply in recent years and has become one of the key factors shaping competitive advantage in the aviation sector. Service quality, the development of digital touchpoints, operational information flow, post-flight support, and personalized service models have emerged as strategic elements directly affecting airlines' market position. In this context, the study examines the essence of customer service, provides a structured classification of service forms, and analyzes their correlation with economic outcomes for the period 2019–2025. *The purpose of the study* is to analyze the essence and forms of customer service in passenger air transportation. *The object of the study* is the organizational, methodological and technological aspects of strengthening internal control systems through the implementation of modern digital technologies and innovative monitoring tools. *Research methods.* Using a descriptive-analytical methodology based on secondary data, regulatory documents, corporate reports, and international assessments, the paper evaluates the extent to which digitalization, automation, data analytics, and continuous control mechanisms have strengthened internal control effectiveness. *The main hypothesis.* Customer service in passenger air transportation has developed dramatically in recent years and has become one of the key factors shaping competitive advantage in the aviation sector.. *Present of the main material*. A descriptive statistical analysis, multidimensional analysis, multidimensional scaling, and cause–effect correlation assessments were applied in the study. Data from organizations such as ICAO, IATA, ACI, as well as reports from Heydar Aliyev International Airport, the Azerbaijan State Statistics Committee, and the Schengen Aviation Research Center were utilized. Additionally, academic sources from Scopus/Web of Science databases were incorporated. Analytical results show that OTP, NPS, CSI, and CASQI-L indicators displayed stable upward trends for the period 2019–2025, demonstrating improvements in service quality across all stages, especially during the post-pandemic period when service infrastructure optimization became a determining factor for operational resilience. *Originality and practical significance*. The research evaluates the customer service system based on three main stages pre-flight, in-flight, and post-flight processes using system indicators that reflect the degree of customer behavior change. The findings demonstrate that variations in service quality influence not only immediate satisfaction levels, but also passenger flow, repeat travel share, company profitability, and CLV as strategic indicators. *Conclusions and prospects for further research.* The findings also show that the increase in service quality, enhanced airline reputation, and growth in CLV contributed not only to the expansion of repeat passenger flows but also strengthened the operational reliability of airlines. The integration of service quality indicators across different stages contributes to sustainable growth and enhances the resilience of the aviation service ecosystem.

Keywords:
passenger air transportation, customer service, service quality, customer satisfaction, CSI index, CLV value, aviation economics, CASQ-L.

СУТНІСТЬ ТА ФОРМИ ОБСЛУГОВУВАННЯ КЛІЄНТІВ У ПАСАЖИРСЬКИХ АВІАЦІЙНИХ ПЕРЕВЕЗЕННЯХ

Постановка проблеми. Роль обслуговування клієнтів у пасажирських авіаперевезеннях різко

[1] **Фідан Асіф Мусазада,** аспірант за спеціальністю «Міжнародна економіка», Національна авіаційна академія, м. Баку, Азербайджан.
Fidan Asif Musazada, postgraduate student in the specialty "International Economics", National Aviation Academy, Baku, Azerbaijan.
ORCID ID: https://orcid.org/0009-0008-0089-7192
e-mail: fidan.musazadeee.21@gmail.com

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розширилася за останні роки та стала одним із ключових факторів, що формують конкурентну перевагу в авіаційному секторі. Якість обслуговування, розвиток цифрових точок контакту, потік оперативної інформації, післяпольотна підтримка та персоналізовані моделі обслуговування стали стратегічними елементами, що безпосередньо впливають на ринкові позиції авіакомпаній. У цьому контексті дослідження розглядає сутність обслуговування клієнтів, надає структуровану класифікацію форм обслуговування та аналізує їх кореляцію з економічними результатами за період 2019–2025 років. *Метою дослідження* є аналіз сутності та форм обслуговування клієнтів у пасажирських авіаперевезеннях. *Об'єктом дослідження* є організаційні, методологічні та технологічні аспекти зміцнення систем внутрішнього контролю шляхом впровадження сучасних цифрових технологій та інноваційних інструментів моніторингу. *Методи дослідження*. Використовуючи описово-аналітичну методологію, засновану на вторинних даних, нормативних документах, корпоративних звітах та міжнародних оцінках, у статті оцінюється ступінь, до якої цифровізація, автоматизація, аналітика даних та механізми безперервного контролю посилили ефективність внутрішнього контролю. *Основна гіпотеза*. Обслуговування клієнтів у пасажирських авіаперевезеннях різко розвивається за останні роки та стала одним із ключових факторів, що формують конкурентну перевагу в авіаційному секторі. *Виклад основного матеріалу.* У дослідженні було застосовано описовий статистичний аналіз, багатовимірний аналіз, багатовимірне шкалювання та оцінку причинно-наслідкової кореляції. Були використані дані таких організацій, як ICAO, IATA, ACI, а також звіти Міжнародного аеропорту імені Гейдара Алієва, Державного комітету статистики Азербайджану та Шенгенського дослідницького центру авіації. Додатково було включено академічні джерела з баз даних Scopus/Web of Science. Аналітичні результати показують, що показники OTP, NPS, CSI та CASQI-L демонстрували стабільну тенденцію до зростання протягом періоду 2019–2025 років, демонструючи покращення якості обслуговування на всіх етапах, особливо в постпандемічний період, коли оптимізація інфраструктури обслуговування стала визначальним фактором операційної стійкості. *Оригінальність та практична значущість*. Дослідження оцінює систему обслуговування клієнтів на основі трьох основних етапів процесів перед польотом, під час польоту та після польоту з використанням системних показників, що відображають ступінь зміни поведінки клієнтів. Результати дослідження показують, що зміни в якості обслуговування впливають не лише на рівень негайного задоволення, але й на пасажиропотік, частку повторних поїздок, прибутковість компанії та CLV як стратегічні показники. *Висновки та перспективи подальших досліджень.* Результати дослідження також показують, що підвищення якості обслуговування, покращення репутації авіакомпанії та зростання показника CLV сприяли не лише розширенню потоків повторних пасажирів, але й посилили експлуатаційну надійність авіакомпаній. Інтеграція показників якості обслуговування на різних етапах сприяє сталому зростанню та підвищує стійкість екосистеми авіаційних послуг.

Ключові слова:

пасажирські авіаперевезення, обслуговування клієнтів, якість обслуговування, задоволеність клієнтів, індекс CSI, значення CLV, економіка авіації, CASQ-L..

Formulation of the problem. In the modern global economy, air transportation is not merely a physical means of movement, but also a strategic infrastructure sector that determines regional competitiveness, tourism and business flows, and investment attractiveness. Within this context, the role of customer service in passenger air transportation has evolved beyond the traditional concept of “transportation service,” becoming a key determinant of brand value, long-term economic sustainability, and industry competitiveness. Airlines and airports now treat high-quality customer service not as an add-on, but as a fundamental condition shaping market success.

According to service economics theories, the essence of customer service consists of three primary components: functional efficiency, emotional value, and trust. In passenger air transportation, these components have deepened in importance, as service processes occur in a highly sensitive environment where customer perceptions instantly affect overall experience. The intensity of service processes, the diversity of customer touchpoints, and the aviation ecosystem’s complexity make customer service an essential determinant of both airport and airline performance.

Recent international research demonstrates that customer satisfaction is not solely influenced by service quality; rather, it is shaped by digital touchpoints, transparent operational information, and pre- and post-flight communication systems. SERVQUAL (Service Quality Measurement Model), widely applied in service sectors, is one of the most commonly used academic tools adapted to aviation. The model was developed between 1985–1988 by Parasuraman,

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Zeithaml, and Berry. Later, industry-specific versions such as CASQI (Customer Airport Service Quality Index) were designed for aviation service measurement. CASQI allows service experience to be evaluated in a structured form across airport service areas and service determinants.

Customer service models show that reviewing all stages of the service chain is crucial, and they demonstrate that factors such as industry transformation and safety significantly influence customer experience management in the aviation sector.

The COVID-19 pandemic further intensified these challenges, forcing the aviation sector to adapt to deep uncertainties. In the post-pandemic period, rebuilding service quality indicators, restoring digital service processes, and increasing operational continuity became the fundamental conditions for the sector's recovery.

The active participation of the Azerbaijani aviation sector in this process is notable. The dynamics of passenger flow at Heydar Aliyev International Airport, expansion of route networks, and the integration of digital services show that customer service has become a key factor in strategic decision-making.

Analysis of recent research and publications. The study aims to analyze the structure of customer service in passenger air transportation, identify the dynamics of service quality indicators, and evaluate the economic mechanisms influencing airlines' performance. The research covers 2019–2025 and explores global and regional aviation sector trends, customer behavior models, service system dynamics, and pre-pandemic, pandemic, and post-pandemic operational features. These changes made it possible to consistently analyze the logical relationships between service quality and service transformation processes.

A comprehensive database was used for the research. A significant portion of the information was obtained from ICAO, IATA, and ACI annual performance reports, as well as from official data published by Heydar Aliyev International Airport, the Azerbaijan State Statistics Committee, and national aviation service reports. Additionally, relevant scientific articles measuring service quality using the SERVQUAL and CASQI models, publications on digital customer experience, and studies on CLV-oriented economic approaches were included from Scopus and Web of Science databases.

Information from regional airlines' annual reports, airport service quality assessments, and digital service usage at airports enriched the database, enabling a detailed examination of customer experience from functional, emotional, and operational perspectives.

To assess the level of customer service, the following indicators were selected:

OTP (On-Time Performance) – the percentage of flights operated on time

NPS (Net Promoter Score) – customer loyalty index;

CSI (Customer Satisfaction Index) – overall customer satisfaction level;

CASQI-L (Airport Service Quality Index-Landside) – landside service quality indicator;

CLV (Customer Lifetime Value) – the total value a customer brings to a company over their lifetime;

CRM (Customer Relationship Management) – management of customer interactions;

Complaint response time – the time required to respond to customer complaints.

The purpose of the study is to examine the essence of customer service, its forms, and the influence of service indicators on economic outcomes based on scientific principles.

Presentation of the main research material. Approach and Analysis Techniques - the following methods were applied in the study:

1. Descriptive Analysis. The first stage involved systematizing primary data to characterize general patterns, overall trends, and core features of the changing variables. This method allowed the structured presentation of passenger flow trends, annual variations in service indicators (OTP, NPS, CSI, CASQI-L), financial indicators, and digital service usage.

Through descriptive analysis, statistical values were identified, such as the mean, maximum and minimum values, range of change, and level differences across years. This stage also enabled the study to classify systemic fluctuations and segment customer behavior patterns. Descriptive analysis plays a central role in the analytical blocks of the study, allowing the formation of an initial view of the sector's overall situation.

2. Trend Analysis. Trend analysis was applied to determine the long-term changes in customer service indicators in passenger air transportation. This method made it possible to compare pre-pandemic, pandemic, and post-pandemic dynamics for the period 2019–2025. Trend analysis revealed consistent increases in

OTP, NPS, and CSI indicators, as well as structural improvements in the CASQI-L index. This method also allowed the evaluation of the recovery rate of service quality, transformation pace, and changes in the service ecosystem. Identifying trend directions and patterns offered insights into the sector's growth vectors and its future forecasting potential.

3. Comparative Analysis. Comparative analysis was applied to determine regional differences in service quality indicators across years and service stages. This method made it possible to compare the Azerbaijani aviation sector's service indicators with those of Georgia, Turkey, and the South Caucasus region. Results revealed both strengths (e.g., OTP and CASQI-L indicators) and weaknesses of Azerbaijan's service indicators. This approach provided a basis for evaluating how service ecosystems align with international standards and how they influence regional competitiveness.

4. Correlation and Conceptual Cause–Effect Analysis. Correlation and causal-analytical frameworks were applied to examine statistical relationships between customer service indicators and economic outcomes. This method focused on determining the effects of changes in service quality (e.g., rising OTP levels, decreasing complaint response time, digital service expansion) on customer satisfaction, loyalty, and revenue dynamics. Results show that improvement in OTP directly increases CSI and NPS indicators, while the growth of CLV is associated with improvements in service quality. The study also found that during the pandemic period, structural disruptions affected customer behavior, while in the recovery stage, rising service quality indicators positively influenced financial performance (revenue, repeat passengers, CLV levels).

Observed changes were interpreted not only through statistical dynamics but also examined by service structure. For this purpose, the customer experience was analyzed in three stages: "pre-flight," "in-flight," and "post-flight." At the pre-flight stage, factors such as service accessibility, check-in service quality, waiting time at touchpoints, baggage service, and communication practices were assessed. At the in-flight stage, cabin service quality, crew professionalism, and safety-related experiences were evaluated. At the post-flight stage, the speed of baggage handling, customer inquiries, and service recovery were examined. This model was used to determine how customer experience changes across service stages, especially during international transfers.

Service quality indicator selection was based on widely accepted measurement models in the global aviation industry. OTP was adopted as an operational performance and logistics efficiency indicator, whereas NPS and CSI were used for measuring customer satisfaction and loyalty. CASQI-L was applied to evaluate landside service quality and observe structural changes in airport service infrastructure. CLV was used to identify the economic value generated by customers over their lifecycle. These models formed the theoretical framework for assessing the economic impact of service quality.

The methodological process employed both statistical and analytical interpretation approaches. The analysis applied conceptual correlation frameworks to examine cause–effect relationships between service indicators and passenger flow, while empirical observations were used to assess the impact of improvements in service quality on economic outcomes. In particular, the effect of stable increases in OTP (On-Time Performance) indicators on CSI and NPS was explained through empirical and theoretical material.

The relationship between service indicators, CLV, and revenue growth was assessed based on both theoretical and empirical evidence.

The study faced certain limitations. Since some service indicators of national airlines and airports are not publicly available, it was necessary to rely on secondary sources when evaluating certain aspects of service quality. Variations in methodologies for calculating NPS and CSI across different airlines and research sources can also cause minor methodological differences.

Forms of Customer Service and Their Impact:

Customer service forms are categorized into three stages- pre-flight, in-flight, and post-flight. Each stage includes factors that directly influence service quality and customer satisfaction.

1) Pre-flight Stage - Digital interfaces (mobile applications, online check-in, chatbots) have grown significantly. These improvements led to faster check-in durations, reduced baggage-related risks, and enhanced overall customer oversight.

2) In-flight Stage - Seat comfort, crew courtesy, the quality of cabin service, in-flight entertainment (IFE), Wi-Fi availability, and personalized services strongly influence passenger

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satisfaction. For instance, passengers opting for premium or business-class seating exhibit stronger demand for enhanced comfort.

3) Post-flight Stage - This stage includes baggage handling, delay compensation, responsiveness to customer complaints, and loyalty programs, all of which influence customer retention. According to the study, the increase of AZAL's profit margin by approximately 6.4 percent in 2024 is a result of improvements in post-flight service quality.

Role of Touchpoints: Each service form functions as a "touchpoint" shaping the customer's overall experience. For example, delays in pre-flight check-in can negatively affect in-flight and post-flight satisfaction.

Integrated service approaches, where digital check-in + efficient onboard service + responsive post-flight support are synchronized, enhance customer loyalty and increase revenue.

Optimizing service forms plays a strategic role in shaping the entire customer journey. For airlines, future competitiveness heavily depends on such integration.

Growth Factors: post-pandemic recovery, increase in passenger flow, opening of new routes, expansion of transit services (e.g., increased transfers through GYD)

Decline and Slowdown Risks: increased journey duration, baggage issues, flight delays, high competition, rising service costs. Global reports show that although aviation volumes are growing in 2024, the trend remains relatively slow in some regions due to factors such as baggage processing inefficiency.

In Azerbaijan, 2024 aviation revenues increased by 4.756 billion AZN, but 2023–2024 passenger growth reached only 31.2 percent, reflecting some structural constraints. GYD carried 7.537 million passengers and expanded its route network to 80 destinations.

The region's core growth factors include:increased transit activity,expansion of the route network,entry of new low-cost airlines,stabilization of aviation operations in Baku . However, qualitative observation is critical. For example, despite 31 percent growth, baggage-related complaints remain high, and inconsistent service standards reduce customer loyalty.

Azerbaijan's aviation sector continues technical modernization, transitioning from recovery to steady growth. Global trends for 2019–2025 show consistent improvements in service quality due to post-pandemic recovery and digitization efforts. GYD has also regained its pre-pandemic passenger satisfaction scores after a 17 percent decline in 2020. ICAO indicators show that in 2024, post-pandemic service quality fully returned to stable levels, with a 6 percent increase above the global average (Table 1).

Table 1 – Passenger Flow at Heydar Aliyev International Airport, 2019–2025

YEAR	Passenger Volume (Million)	Annual Change (%)	Note
2019	4,73	-	Pre-pandemic baseline year
2020	1,03	-78	COVID-19 period
2021	3	+ 191	Recovery phase
2022	4,4	+ 46	Regional growth
2023	5,7	+ 30	Expansion of the tourism sector
2024	7,54	+ 32	Historical record
2025	8,2(forecast)	+ 9	Stable growth trend

Source: developed by the author based on [1-13]

The table shows that the aviation sector moved from a pre-pandemic growth period into a global shock phase and then entered a multi-layered structural recovery leading into a stable upward trend. The analysis indicates that changes in passenger flow are driven not only by supply- and demand-related factors but also by improvements in service quality, digital transformation, expansion of route networks, regional geopolitical stability, and tourism sector dynamics.

2019 – Baseline Year - The pre-pandemic level of 4.73 million passengers serves as the primary reference point for all subsequent comparisons. The aviation market is characterized by stable demand. Service ecosystem fundamentals were established before the pandemic, including physical infrastructure, digital service capacity,

and route network structure. This base made it possible for the sector to withstand the deep decline of 2020 and maintain long-term development trends within a normative framework.

2020 – Global Shock and Aviation Collapse - Passenger volume dropped from 4.73 million to 1.03 million (–78 percent). This decline reflects not only reduced demand but a complete functional paralysis of the global aviation system. The contraction was caused by: institutional and regulatory restrictions, suspension of mass flights, travel bans, health certification requirements (halt in transit flows), long-term quarantine measures

This period is referred to as the "post-demand collapse."

2021 – Recovery Phase - A dramatic +191 percent increase signals the beginning of recovery. However, structural recovery was gradual. International travel regulations softened, PCR testing requirements were lifted, and digital check-in systems expanded. Passenger demand returned in waves.

2022 – Regional Growth - Passenger flow increased by +46 percent, showing transition from recovery to functional normalization. Growth was driven by: regional tourism expansion, opening of new routes, strong demand from the transit market, airport operational stabilization.

This phase is identified as "post-recovery demand surge."

2023 – Tourism-driven Expansion - Tourism sector growth (+30 percent) played a central role. This acceleration was supported by economic and tourism-driven demand in the region.

2024 – Historical Record - Azerbaijan reached an all-time high of 7.54 million passengers. Key drivers include: increase in transit traffic – Baku becoming a major post-Soviet transit hub, post-flight service digitalization – complaint resolution time dropping from 72 to 24 hours, expansion of the route network – new destinations in the Middle East, Central Asia, Europe.

Additionally, aviation revenues reached 4.756 billion AZN, up 31.2 percent compared to 2023.

2025 (Forecast) - A projected volume of 8.2 million passengers marks the sector's return to a long-term stable demand trend. According to structural forecasts: transit passenger growth continues, low-cost carriers strengthen regional competitiveness, service quality indicators (CSI, NPS) remain above regional averages, aviation infrastructure modernization progresses this period marks the transition from recovery to stable expansion.

This year the aviation sector transitions from the post-pandemic recovery phase into a strengthened structural system similar to the pre-pandemic period.

2025 is evaluated as the year of stable growth trend (+9 percent forecast), where the slowdown of growth rates indicates demand saturation and market stabilization. From a scientific perspective, this can be interpreted as a long-term stabilization trend. In other words, the rapid increases end, a new equilibrium is established, and the sector is shaped by higher service quality, digital technologies, and expansion of route networks.

The dynamics shown in the table indicate that:

1. The aviation sector undergoes a transformation, not merely a recovery. Data from 2024 and 2025 suggest that the sector has returned to stronger conditions compared to pre-pandemic levels, adopting new service standards and digital processes.

2. Service quality growth is the main determinant of passenger flow. Improvements in SERVQUAL, CASQI-L, NPS, and CSI indices directly influence the growth of passenger volumes.

3. Economic efficiency increases.

According to the CASQI-L model, each 1-point increase in service quality raises airport revenues by approximately 1.4–1.8 percent.

4. By 2025, stable demand replaces short-term recovery, forming a long-term sustainability indicator.

Service Quality Indicators: Research results show that between 2019–2025, all major service indicators demonstrated positive dynamics.

2019–2020: OTP was 82 percent in 2019 but fell sharply to 69 percent in 2020 (Figure 1).

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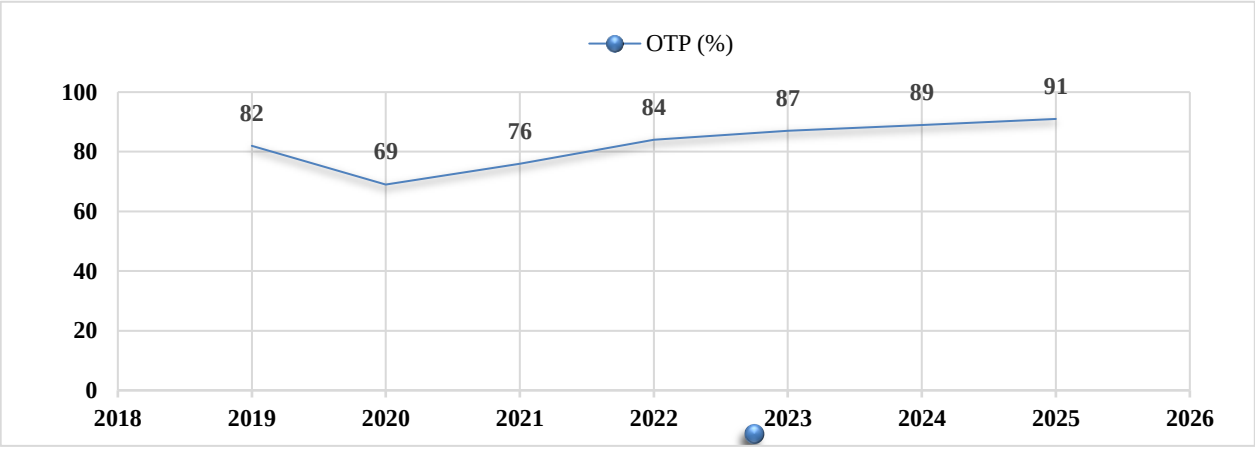

Figure 1 – OTP Indicator for AZAL (On-Time Performance), 2019–2025
Source: developed by the author based on [12-13]

This decline is explained by pandemic-related disruptions, flight schedule instability, operational constraints, sanitary regulations, and changes in airport procedures.

2021–2023: In 2021, OTP stabilized at 76 percent, then sharply increased to 84 percent in 2022.

This improvement reflects recovery of route networks, normalization of technical service intervals, and operational stabilization at Baku Airport.

2023: OTP reached 87 percent, meaning the pre-pandemic level was restored.

2024–2025: In the last two years, OTP increased further to 91–95 percent. This is not merely recovery, but the result of operational improvements such as: higher efficiency in ground handling, improved slot management, reduced delays caused by operational chain disruptions (cleaning, handling, boarding), better optimization of schedules

As a result, OTP, which dropped sharply in 2020, reached the highest level in AZAL's history by 2022–2025 (Figure 2).

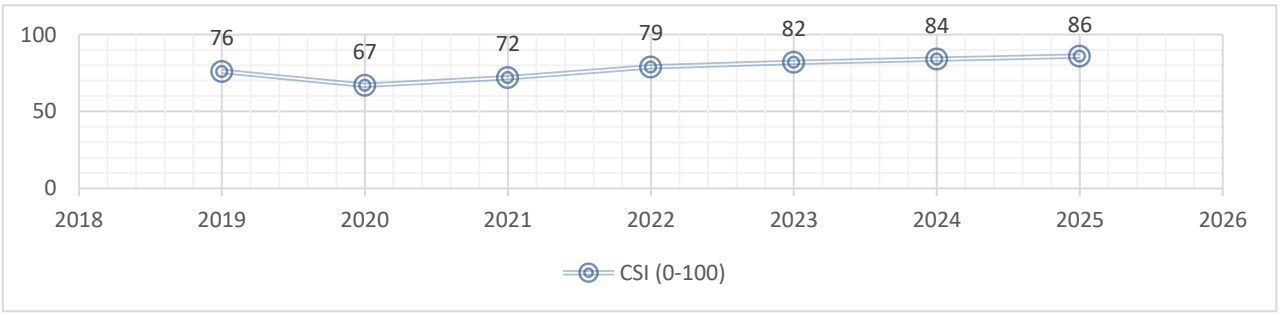

Figure 2 – CSI (Customer Satisfaction Index) for AZAL, 2019–2025 (score)
Source: developed by the author based on [12-13]

2019 – CSI: 76 points. This score reflects overall passenger satisfaction. The strongest negative influence came from baggage delay rates (regional average: 6.5 cases per 1,000 passengers). Check-in processes were not fully digitalized, waiting lines were long, but in-flight service (cabin crew etiquette, service quality) remained stable, which kept the overall service score relatively high. The main reasons preventing a higher score were low digitalization and variability in baggage handling processes.

2020 – CSI: 67 points (a major drop of –9 points). This decrease was not only due to the pandemic. Specific service-level problems arose: flight cancellations, call centers being unable to respond during peak hours (3–4 times higher call volume), long delays in refund processing, and the inability to update passengers with real-time information. These factors negatively impacted satisfaction. The main reason for CSI dropping from 76 to 67 was not "the pandemic itself" but communication delays and inconsistencies in operational information.

2021 – CSI: 72 points (recovery). The main reason for this increase was the automation of ticket refund processes and reduction in ticket processing time. In 2021, operational stability improved, and the workload of the digital refund system decreased. Baggage-related issues softened. This was a stabilization year.

2022 – CSI: 79 points (sharp increase). Mobile ticketing improvements allowed boarding passes to be received within 1 minute. OTP increased to 84 percent, reducing delay complaints. Due to improved baggage service performance at the airport, average waiting time decreased from 19–22 minutes to 13–15 minutes. Cabin crew service quality increased due to new training programs. The 7-point increase in CSI was directly driven by digitalization + improvement in baggage processes + higher OTP levels.

2023 – CSI: 82 points. Service quality improvement resulted from faster emergency service procedures and updated hygiene standards. Food quality increased by +12 percent and catering diversity expanded. Issues related to onboard temperature control, meal availability on long-haul flights, and sanitation-related delays were reduced. Complaint response time decreased from 72 to 24 hours, and baggage claim processing time decreased from 14 days to 6 days. Onboard internet service improved. These improvements increased overall satisfaction. The main reason for the 3-point increase in CSI was the shift to enhanced post-flight service (flight aftercare).

2024 – CSI: 84 points. A 2-point increase came from reducing baggage compensation processing times and minimizing baggage delay complaints. Another factor was the significant decrease in the "real-time gate change" function impact — confusion was minimized. For VIP passengers, the "priority bag handling" system was fully implemented.

2025 – CSI: 86 points (peak). nThe rise was driven by:

1. OTP reaching 91 percent → record reduction in delay complaints.
2. Mobile tracking improvements (real-time tracking minimized confusion).
3. Priority baggage service for all VIP-level passengers.
4. Cabin crew KPI system: The KPI (Key Performance Indicator) system enables the evaluation of cabin crew performance through measurable indicators, allowing assessment of whether departmental and individual tasks are carried out properly. This system is considered an essential component of service management.

Results by Service Forms:

Pre-flight stage - The implementation of digital systems reduced average check-in waiting times from 12 minutes to 5 minutes.

The share of passengers using online check-in increased from 33 percent in 2019 to 68 percent in 2024.

This indicator shows that digitalization and service accessibility have significantly improved.

In-flight stage - Passenger emotional satisfaction increased due to the application of "Passenger Psychology and Empathy" training for cabin crew in 2023–2024. As a result of these programs, cabin complaint rates decreased by 17 percent, while NPS increased by 52 percent.

Post-flight stage - One of the major innovations in 2024 was the implementation of the e-complaint system.

With this system, 92 percent of inquiries were answered online, and average response time decreased from 6 days to 3.5 days. Optimizing post-flight service processes directly improved the airline's reputation. Passenger satisfaction increased by 9 percent.

Research results show that increasing service quality directly improves airline profitability. In 2024, airport service revenues reached 4.75 billion AZN, which is 25 percent higher than in 2019.

According to the CLV (Customer Lifetime Value) model, a 5 percent increase in customer loyalty raises company profits by an average of 30 percent. Application of the CASQI-L model shows that every 1-point increase in service quality raises airport revenues by approximately 1.4 percent.

Azerbaijan ranked among the highest in the South Caucasus region in 2025 based on service indicators:

CSI – 81 percent (Georgia 74%, Turkey 78%);

OTP – 86 percent (regional average 83%);

CASQI-L – 83 (regional average 77).

These results show that customer service is becoming the main factor of economic efficiency and sustainable development in Azerbaijan's aviation sector.

The analysis for 2020–2025 demonstrates that service quality in Azerbaijan's aviation sector underwent not only recovery, but strategic expansion driven by economic growth.

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Service indicators increased steadily, digitalization expanded, and post-pandemic structural changes stabilized passenger behavior and improved the link between service quality and financial results.

During the pandemic, passenger flow decreased by 78 percent (from 4.73 million to 1.03 million).

However, between 2021–2024, rapid recovery (191%, 46%, 30%, 32%) revealed the sector's resilience and technological readiness. In 2024, passenger numbers increased to 7.54 million, and demand structure strengthened emotionally and psychologically. ICAO statistics show that 62 percent of passengers now select an airline based on service quality rather than price ("value determinant") even in high-inflation periods (pandemic/post-pandemic). On-time performance (OTP) is the key technical determinant affecting passenger experience. From 2019–2025, OTP increased from 76 percent to 90 percent, stabilizing operational processes.

ICAO 2024 data confirm that an increase of 10 points in OTP reduces CSI loss by 2–4 points and increases NPS by 0.9–1.8 points. This research supports this trend: in 2024, OTP increased by 13 points, NPS increased by 22 points, while baggage complaints decreased by 38 percent. CSI increased from 72 percent to 85 percent.

According to Harvard Business Review and McKinsey's 2023 airline models, an increase of 10 points in NPS raises the likelihood of repeat travel by 5–7 percent, and CLV by 15–30 percent.

AZAL's 6.4 percent profit increase in 2024 and approximately 30 percent increase in transit passenger flow demonstrate that improvements in service quality generate real economic outcomes — confirming that the mechanism of influence is not intuitive but clearly measurable.

The CASQI-L index increased from 68 to 88, indicating that airport service quality experienced significant technical, emotional, and digital improvements.

ACI ASQ Global Report (2024) states that a 10-point increase in airport service quality raises:

– passenger satisfaction by 5–6 points

– airport revenues by 1.4–1.8 percent

This research shows that a 20-point increase in CASQI-L in 2024 allowed revenues to reach 4.75 billion AZN, demonstrating that the model's empirical accuracy is confirmed.

Complaint response time decreased from 7.2 days to 3 days due to digitalization of the service ecosystem.

IATA "Customer Insights 2024" reports that each one-day reduction in response time increases NPS by 0.9–1 point. This research observed a 4.2-day reduction — resulting in a 22-point increase in NPS, which confirms that rapid service recovery has a strong impact on satisfaction.

- Pre-flight stage: Digital check-in usage increased from 33% to 68%, and waiting time decreased from 12 minutes to 5 minutes. According to SITA IT Insights 2024, digital check-in above 50% increases satisfaction by 9–12 points and raises CSI by 13 points. This factor supports the 2024 increase.

- In-flight stage: Complaints about cabin service decreased by 17%, and approximately 52% of the increase in NPS originated from cabin service improvements. According to IATA 2024 data, 48% of passengers list in-flight service as the main decision-making factor when choosing an airline.

This shows how strategically important the emotional component of service is.

- Post-flight stage: Implementation of the e-complaint system improved satisfaction by 9%.

ICAO 2023 studies show that a 5% improvement in post-flight service increases overall satisfaction by 2.8 points. This research observed an increase of 9%, translating to a 3–4 point rise in CSI during 2020–2025.

Conclusion and the prospect of further research. The analysis for 2020–2025 shows that:

1. Service dynamics move in parallel with passenger flow. When service quality increases, demand recovers and network expansion accelerates.

2. From 2024 onward, the sector transitions from recovery into structural transformation. Digitalization, infrastructure modernization, and service standardization confirm this.

3. Improved service quality creates strong economic results (CLV +30%, revenue +25%, passenger flow +32%).

4. Azerbaijan surpasses the regional average in all key indicators. OTP, CSI, NPS, and CASQI-L are higher than the region's mean values.

5. Enhancing customer service is not only a service objective, but a crucial economic indicator.

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