

MASS CATERING SERVICE QUALITY AS A DETERMINANT OF CUSTOMER SATISFACTION IN THE TOURISM SECTOR

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Abstract: In the context of organized tourism, where meals constitute an integral yet logistically complex part of the package, maintaining a consistent quality standard poses a significant challenge for tour operators. The study adopted a quantitative diagnostic survey approach, utilizing a questionnaire distributed to a sample of 420 participants who had recently completed various escorted tours. Data collected using the PAPI method were subjected to reliability analysis, correlation analysis, and multiple regression analysis. The results indicate that the quality of catering services is a strong predictor of overall tour satisfaction. The key dimensions influencing satisfaction were reliability - understood as the consistency of meal quality and organization across different locations ($\beta = 0.48$) - and staff interaction, which included service in restaurants as well as the role of the tour guide ($\beta = 0.35$). The tangible dimension (taste of the food) was also significant, though to a lesser extent. The findings provide strategic guidance for tour operators in selecting catering partners and managing the culinary experience as a key component of a successful escorted tour.

Keywords: quality of services, customer satisfaction, sightseeing tours, mass catering, tourism management, tour operator.

1. INTRODUCTION

Escorted tours constitute a dynamically developing segment of the tourism market, responding to the needs of customers wishing to explore multiple destinations and attractions within a limited time frame (Aho, 2001). This inherently complex product comprises numerous components-transportation, accommodation, sightseeing programs, and the guidance of a tour leader whose coherence and quality determine the overall satisfaction of participants. Within this structure, food services play a particularly important role. They are not merely a physiological necessity but a significant part of the cultural and social experience, influencing the daily rhythm and overall atmosphere of the trip.

The research problem focuses on the challenges associated with delivering high and, most importantly, consistent quality in food services during escorted tours. Unlike stationary tourism, where food services are typically provided by a single entity (e.g., a hotel restaurant), participants in escorted tours use a variety of establishments-



restaurants, inns, and hotels-often unrelated to one another. As the organizer, the tour operator is responsible for maintaining a consistent standard across all locations, which presents considerable logistical and operational complexity. Discrepancies in meal quality across different days of the tour may cause frustration among participants and significantly reduce their overall satisfaction with the tour package (Pasianiuk, 2021; Al-Gasawneh, et al., 2021; Krynke & Mazur, 2024; Siwiec & Pacana, 2025).

The identified research gap lies in the insufficient recognition of which aspects of food service are considered most important by participants of escorted tours. While the literature extensively discusses food service quality in stationary settings, there is a lack of analysis that takes into account the specifics of “on-the-road” services including time pressure, the group nature of consumption, and the crucial role of the tour leader as a mediator between the group and the service providers. This research gap is in line with recent findings by Ingaldi (2024), who emphasizes the necessity of balancing service quality and user experience in religious tourism settings, revealing the intricate challenges in meeting visitor expectations while maintaining operational coherence.

Therefore, the primary aim of this article is to identify and evaluate the influence of selected dimensions of food service quality on the overall satisfaction level of customers participating in escorted tours.

Main research question (RQ):

Which dimensions of food service quality (tangibles, reliability, staff interaction) have the greatest impact on the satisfaction of escorted tour participants?

Main hypothesis (H_0):

There is a statistically significant, positive relationship between the overall assessment of food service quality and overall satisfaction with the escorted tour.

Specific hypotheses:

- H_1 : The tangible dimension (quality and taste of meals served in visited establishments) has a significant positive impact on customer satisfaction.
- H_2 : Reliability (consistency of standards, adherence to plan, and organization of meals) has a significant positive impact on customer satisfaction.
- H_3 : Staff interaction (quality of service in dining venues and the organizational role of the tour leader) has a significant positive impact on customer satisfaction.

2. LITERATURE REVIEW

The theoretical foundations of this study are based on classical concepts of service quality and customer satisfaction. According to the model proposed by Parasuraman, Zeithaml, and Berry (1985), service quality comprises five core dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In the context of collective food services, particularly in escorted tourism, these dimensions acquire specific interpretations. For instance, reliability-understood as the consistent delivery of promised services-becomes a key factor in the satisfaction of tourists who expect a uniform level of service quality across various locations along the tour route (Ramli, 2023; Lu & Wang, 2024).

The literature increasingly emphasizes the importance of the tangible dimension, which includes the sensory quality of meals (taste, freshness, presentation) and the hygiene conditions of dining venues. Research indicates that for customers using food services during escorted tours, maintaining high standards of hygiene and freshness is equally as important as the appeal of the destinations themselves. These factors directly affect

perceived quality and satisfaction with gastronomic services (Pilis et al., 2022; Diaz, 2023; Nadanyiova, et al., 2023).

Lu and Wang (2024), in their study on customer satisfaction with food services in tourist destinations, highlight the necessity of integrating the 4Ps of marketing (product, price, place, promotion) as part of a strategic approach to enhancing customer experience. Their findings confirm that the appropriate combination of these elements contributes to higher evaluations of service quality and greater customer satisfaction.

An important yet often underestimated aspect in the literature is the role of staff interaction, particularly the function of tour leaders, who are essential not only in delivering information but also in managing challenging situations. Ramli (2023) identifies service quality as a crucial determinant of customer satisfaction, especially in the context of food services, where direct interaction between staff and customers significantly shapes the overall gastronomic experience.

Research by Diaz (2023) demonstrates that clients of catering services in the tourism sector tend to evaluate quality through several key factors, such as punctuality, availability of diverse meal options, and the willingness of staff to provide assistance. In the context of escorted tours, where group dining demands meticulous planning and logistics, the ability of both the staff and the tour leader to promptly address participants' needs and resolve food-related issues plays a crucial role in shaping overall customer satisfaction.

Additionally, Pilis et al. (2022) stress the importance of service personalization. They argue that effective customer relationship management, including the adaptation of services to the specific preferences of the group, significantly enhances overall satisfaction. Personalization also includes addressing dietary restrictions and health-related needs, which is increasingly becoming a standard expectation in the tourism industry. In the context of service personalization, the study by Szczyrba and Szataniak (2023) using the Kano Model, although analyzing food packaging, provides a valuable framework for understanding customer preferences. The authors indicate that consumer satisfaction results not only from meeting basic expectations (Must-Be Quality), but also from the presence of so-called "delight factors" (Attractive Quality). This allows for more conscious and strategic planning of the offer, so that it better responds to diverse needs and builds overall customer satisfaction more effectively. Transferring these conclusions to catering services for tourists, it can be argued that it is crucial to identify which aspects of the offer are considered "obvious" (e.g. basic quality and freshness of meals) and which are "delight factors" (e.g. original presentation of dishes or flexibility in adapting the menu to individual needs). This type of approach supports strategic quality management and helps build customer loyalty in the group tourism sector. In relation to the issue of packaging, it is worth noting that it can also play an important role in guided tourism – for example, in situations where meals are delivered to the coach (food for the journey). In the context of mass tourist catering, the aesthetics of packaging and its functionality (e.g. ease of opening, possibility of re-closing) can be important elements shaping the experience of tour participants.

Another relevant dimension of service quality involves Lean-based management approaches, which, through process optimization and employee involvement, positively influence the efficiency and safety of provided services (Sá et al., 2025). However, Villena and Vargas (2025) point to numerous barriers to Lean-based management implementation, highlighting the importance of socio-technical factors such as organizational culture, employee engagement, and management structures. The research

by Szczyrba and Szataniak (2024) confirms the effectiveness of Lean tools in the food industry in improving operational safety and emphasizes the key role of sociotechnical factors in the process of their implementation.

Issues related to agile management in the food sector are also discussed by Dziuba and Szczyrba (2023), who demonstrate that this approach facilitates better adaptation to dynamic customer needs and changing operational conditions-factors particularly relevant in the logistical context of gastronomy for escorted tours.

The literature clearly indicates that providing high-quality gastronomic services in escorted tourism requires a comprehensive approach encompassing reliability, tangibility, and the critical role of personnel. Both technical elements (such as meal logistics and organization) and soft aspects (customer service, personalization, and Lean and Agile management) are crucial for achieving high levels of satisfaction among escorted tour participants.

3. RESEARCH METHODOLOGY

The study was conducted within a positivist paradigm, employing a quantitative research strategy. Data collection was based on a diagnostic survey method. The research instrument was an original questionnaire specifically developed to address the specific characteristics of escorted tours. The questionnaire consisted of three main sections:

1. Sociodemographic section – included questions regarding gender, age, prior experience with escorted tours, and key characteristics of the most recently completed trip (destination, duration).
2. Perceived quality of food services – measured using a 15-item scale based on a five-point Likert scale (from 1 - “strongly disagree” to 5 - “strongly agree”), referring to the overall culinary experience throughout the tour.

The questionnaire included three dimensions:

A. Tangible dimension (5 items):

- T1: Overall, the meals served during the tour were tasty.
- T2: Meals were prepared using fresh ingredients.
- T3: The dining establishments visited were clean and hygienic.
- T4: The portions served were adequate in size.
- T5: The menu offered opportunities to try local specialties.

B. Reliability (5 items):

- R1: Meal quality remained consistent across different locations along the tour.
- R2: The type and number of meals matched the tour offer.
- R3: Meals were served on time, according to the tour schedule.
- R4: Group meal arrangements were efficient and free from unnecessary delays.
- R5: Appropriate beverages were provided with meals (as stated in the offer).

C. Staff interaction and tour leader role (5 items):

- LR1: Service at the restaurants and hotels visited was generally polite and efficient.
- LR2: The tour leader provided clear organizational information about meals (location, time).
- LR3: The tour leader effectively assisted in resolving potential issues (e.g., special diets, mistakes).
- LR4: The tour leader ensured that the group’s nutritional needs were met.
- LR5: Overall, the tour leader’s attitude and engagement regarding food services were professional.

3. Overall satisfaction - measured using a single-item scale asking about general satisfaction with the escorted tour as a whole, rated from 1 ("I am completely dissatisfied with the tour") to 10 ("I am fully satisfied with the tour").

The study involved 420 respondents who completed the questionnaire fully and correctly. The sample was predominantly female (62%). The largest group were participants aged 50–65 (45%), followed by people aged 30–49 (30%). Respondents aged over 65 represented 15% of the sample, while the youngest study group (18–29 years) accounted for 10%.

For the majority of participants (55%), this was a subsequent escorted tour within the past few years, indicating some level of travel experience. Of the survey participants, 35% had never taken this kind of trip before, and 10% described themselves as regular participants of organized trips (at least once a year).

Data collection was carried out using the PAPI (Paper and Pencil Interview) method during the return journey by coach, allowing participants to assess the full package of services shortly after the tour programme had concluded.

Data analysis included descriptive statistics, assessment of scale reliability using Cronbach's alpha coefficient (α), Pearson's correlation (r), and multiple regression analysis.

4. RESULTS AND DISCUSSION

In order to examine in detail and illustrate the participants' assessments of the individual dimensions of catering service quality, a descriptive analysis was conducted before testing the hypotheses. The mean scores indicate that tour participants rated the tangible dimension the highest, suggesting overall satisfaction with the taste and quality of the meals. The reliability dimension received the lowest average score, which may signal challenges related to maintaining consistency and effective organization of meals throughout the tour. Detailed results are presented in Table 1.

Table 1

Mean scores and standard deviations for perceived food service quality dimensions during escorted tours

Quality dimension	Mean (scale 1–5)	Standard deviation
Tangible dimension	4.02	0.75
Staff interaction and tour leader role	3.89	0.88
Reliability	3.71	0.95
Overall quality (aggregate mean)	3.87	0.80

In the next stage, statistical inference was performed. The overall reliability of the measurement scale (15 items) was high, with Cronbach's alpha = 0.91 (excellent), indicating strong internal consistency of the instrument.

Correlation analysis confirmed the main hypothesis (H_0), demonstrating a strong positive relationship between overall perceived food service quality and general tour satisfaction ($r = 0.68$; $p < 0.001$).

To verify the specific hypotheses, multiple regression analysis was employed. The results are presented in Table 2.

Table 2

Results of multiple regression analysis for the dependent variable: Overall satisfaction with the tour

Independent variable (predictor)	B	Standard error	Standardized β	t value	Significance (p)
Constant	2.15	0.31	-	6.93	<0.001
Reliability	1.02	0.10	0.48	10.21	<0.001
Staff interaction and tour leader role	0.73	0.09	0.35	8.11	<0.001
Tangible dimension	0.31	0.11	0.14	2.82	0.005

The regression model was well-fitted to the data:

$$(R^2 = 0.59; F(3, 416) = 199.45; p < 0.001) \quad (1)$$

explaining 59% of the variance in overall tour satisfaction. All three dimensions of food service quality had a statistically significant and positive effect on satisfaction.

Reliability emerged as the strongest predictor ($\beta = 0.48$), fully supporting Hypothesis H₂. The second most influential factor was staff interaction and the role of the tour leader ($\beta = 0.35$), confirming Hypothesis H₃. The tangible dimension also had a statistically significant influence ($\beta = 0.14$), although its effect was relatively smaller, which confirms Hypothesis H₁, while suggesting its limited importance compared to the other two factors. The empirical analysis provides a multifaceted view of the structure of factors shaping escorted tour participants' satisfaction, while also supporting and expanding upon previous findings in the literature.

The dominant role of reliability is the most important finding of this study. This result aligns with the research of Ramli (2023) and Lu and Wang (2024), who similarly emphasize the significance of consistency in service delivery. In the context of escorted tours, which are dispersed and multi-stage by nature, reliability acts as the cohesive element of the overall tourism experience. For participants, what matters more than a single exceptional meal is predictability and stability—the assurance that each day they will receive a satisfactory, timely, and well-organized meal. This consistency builds fundamental trust in the tour operator and creates a sense that “everything is under control.” From a consumer psychology perspective, poor reliability introduces uncertainty and stress, negatively impacting the perception of the entire travel experience. Variations in quality are not perceived as isolated incidents but as systemic organizational flaws. This finding aligns with the broader literature emphasizing the integration of quality assurance tools into food service logistics. For example, Szczyrba and Ingaldi (2024) show that the use of FMEA in combination with the HACCP system in food production enables proactive risk identification and promotes consistent operational quality. This is crucial for building customer trust in food services, also in the context of tourism activities, where quality has a direct impact on experiences.

The crucial role of staff interaction, particularly that of the tour leader, constitutes the second key finding. In the escorted tourism model, the tour leader becomes a central point of contact not only as an information provider but also as a coordinator and problem-solver. Their organizational and communication competencies, along with their ability to manage difficulties, significantly shape perceptions of service quality. These conclusions correspond with the findings of Diaz (2023), who identifies staff readiness to assist as a core driver of satisfaction. The results confirm Hypothesis H₃ and suggest that tour

operators should view the tour leader not only as a guide but also as a culinary experience-manager-a perspective consistent with the concept of service personalization described by Pilis et al. (2022). Effective relationship management by the tour leader can substantially increase participants' overall satisfaction.

The study results show that although the tangible dimension has a smaller impact, it remains statistically significant and worthy of attention. This does not imply that the taste and quality of meals are unimportant; rather, it suggests that participants hold pragmatic and standardized expectations. Meals are expected to be acceptable: fresh, tasty, and filling. As indicated by Pilis et al. (2022) and Diaz (2023), core expectations include hygiene, freshness, and availability. Culinary excitement such as trying local specialties is a welcome bonus, but cannot compensate for organizational deficiencies or quality inconsistencies. This suggests that, in the hierarchy of needs among escorted tour participants, safety and order take precedence over culinary indulgence.

The practical implications of these findings are directly related to quality management concepts. Ensuring reliability in food services across an entire tour route requires logistical process optimization and careful selection of gastronomic partners, in line with Lean principles aimed at minimizing waste and variability. Simultaneously, the tour leader's ability to respond dynamically to unanticipated situations and adapt to group needs aligns with the Agile philosophy. However, as Villena and Vargas (2025) note, the implementation of such approaches is often hindered by organizational culture and employee engagement issues challenges that are especially pronounced in networks of independent food service providers. The use of systematic risk identification tools, such as the procedure proposed by Nedeliakova, Hranicki, and Valla (2022), could enable tour operators to detect critical points in the food chain early and thus maintain high reliability of catering services on the tour route.

5. CONCLUSION

The findings of this study contribute to a deeper understanding of the factors that shape satisfaction in organized tourism. The most significant result is the dominant role of the reliability dimension. For participants of escorted tours, predictability and consistency in food services are more important than isolated exceptional culinary experiences in individual venues. Tourists expect meals to be delivered daily at an acceptable, consistent standard-on time and with efficient organization. It is the coherence of this experience that builds trust in the tour operator and reinforces the perception of professional management. In contrast, inconsistency in food service quality is perceived as a symptom of organizational failure and lack of control.

The second important conclusion concerns the key role of the tour guide, who in organized tourism plays not only the role of a guide, but also the central coordinator and intermediary in the area of food services. The tour leader's organizational and communication skills, along with their ability to resolve issues effectively, significantly influence how participants perceive the overall service quality. This finding confirms Hypothesis H₃ and highlights the need for tour operators to recognize the tour leader as a manager of the group's gastronomic experience, not merely a logistics facilitator.

The relatively lower influence of the tangible dimension does not imply that the taste or quality of meals is unimportant. Rather, the results suggest that escorted tour participants tend to have pragmatic expectations meals are expected to be fresh, tasty, balanced, and satisfying. Culinary excitement (e.g., the opportunity to sample regional specialties) is

welcomed, but it cannot compensate for organizational inconsistency or a lack of service reliability.

Based on the findings, the following practical recommendations for tour operators can be proposed:

1. Developing and verifying a reliable network of gastronomic partners.
Priority should be given to collaborating with proven and reliable food service establishments that can consistently deliver group-oriented service at a stable quality level.
2. Training programs for tour leaders.
Training curricula for tour leaders should include modules on food service management, effective communication with partners, and protocols for addressing food-related issues during the tour.
3. Clear and realistic communication in promotional materials.
Descriptions of food services in tour offers should be accurate and unambiguous to avoid creating unrealistic expectations that cannot be met throughout the entire itinerary.

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