Enhancing Airport Image through Total Quality Management and Service Quality: A Conceptual Perspective on Abu Dhabi International Airport

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ABSTRACT

Airport image is shaped by passengers' cumulative experiences of service delivery and by the operational systems that make those experiences possible. This paper develops a context-specific conceptual framework linking total quality management (TQM), three airport service-quality dimensions—physical-environment, interactional and outcome quality—passenger satisfaction, and airport image, with Abu Dhabi International Airport as the focal context. To address the practical complexity of airport operations, the framework explicitly considers border-processing interfaces, baggage handling, digital self-service, wayfinding and inter-terminal transfers, while recognising that outcomes depend on coordination among multiple organisations. The paper's contribution is an integrated, airport-specific operationalisation of established constructs and a set of testable propositions, rather than a claim of a newly validated theory. It proposes a sequential empirical design combining passenger surveys with process-focused qualitative observations and an analysis of available operational indicators. A structural equation modelling (SEM) protocol is outlined to assess measurement quality, direct relationships and the indirect effects of passenger satisfaction. No primary data or statistical results are claimed in this conceptual paper; the proposed relationships remain hypotheses for future testing.

Keywords: total quality management; airport service quality; passenger satisfaction; airport image; Abu Dhabi International Airport

INTRODUCTION

Airports are complex service environments in which passengers encounter multiple organisations and processes, including check-in, baggage handling, security screening, immigration, wayfinding, retail, waiting areas and boarding. These interactions collectively influence how an airport is evaluated. Airport image therefore extends beyond the physical terminal: it can include functional beliefs about efficiency and reliability, emotional responses to the environment, and associations with the destination served. Research on airport image indicates that passengers associate airports with functional, psychological and affective attributes, and that these associations can influence impressions of the host city (Nghiêm-Phú & Suter, 2018).

Service quality is an important managerial concern because airport users evaluate both the outcome of a service and the process through which it is delivered. Studies of airport service quality have linked service experiences with satisfaction and corporate image, suggesting that the quality of ground services can influence how an airport is perceived (Mainardes et al., 2021). The airport environment also comprises tangible features—such as cleanliness, signs, facilities and layout—and interactions with employees and service systems (Park & Park, 2018).

Total quality management (TQM) offers a complementary organisational perspective. Rather than treating quality as the responsibility of one department, TQM emphasises leadership, customer focus, employee involvement, process management, evidence-based decisions and continuous improvement. These principles are consistent with the quality-management principles described by the International Organization for Standardization (ISO, 2015). In an airport setting, they can help align the many activities and service providers that contribute to a passenger's overall experience.

Although prior studies have examined TQM in service organisations and airport service quality in aviation, the relationships among TQM, specific airport service-quality dimensions, passenger satisfaction and airport image can be brought together in a single conceptual framework. This paper addresses that conceptual need in the context of Abu Dhabi International Airport. It does not claim to establish causal effects or present new empirical findings; instead, it synthesises relevant literature and proposes relationships for future testing.

Aim and Objectives

The aim is to develop a conceptual framework explaining how TQM and airport service quality may contribute to the image of Abu Dhabi International Airport through passenger satisfaction.

The objectives are to: (1) explain the relevance of TQM to airport service delivery; (2) organise airport service quality into physical-environment, interactional and outcome dimensions; (3) propose direct relationships among TQM, service quality, passenger satisfaction and airport image; and (4) identify passenger satisfaction as a potential mediator for empirical investigation.

Research questions

RQ1: How may TQM practices contribute to passenger satisfaction and airport image? RQ2: How may physical-environment, interactional and outcome quality relate to passenger satisfaction and airport image? RQ3: What mediating role may passenger satisfaction play in the relationships between TQM, service quality and airport image?

LITERATURE REVIEW

Total Quality Management in Service Organisations

TQM is an organisation-wide philosophy that embeds quality in leadership, processes, employee practices and customer relationships. It relies on systematic improvement rather than isolated corrective action. The seven quality-management principles associated with ISO include customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision-making and relationship management (ISO, 2015). These principles are relevant to airports because passenger journeys cross organisational boundaries and depend on coordination among airport operators, airlines, security agencies, immigration authorities, retailers and other service providers.

TQM research across service settings has examined links between quality-management practices, service performance and customer satisfaction. For example, Pattanayak et al. (2017) investigated TQM, service quality, market orientation, satisfaction and loyalty in the Indian banking sector, while Nguyen and Nagase (2019) examined TQM and customer satisfaction in healthcare. These contexts differ from airports, so their findings should not be transferred uncritically. Nevertheless, they illustrate the broader proposition that management systems and process consistency can influence how customers evaluate service experiences.

For airport management, TQM may be operationalised through visible practices: leadership accountability for service standards; employee training and empowerment; cross-functional process mapping; complaint analysis; service-recovery protocols; supplier and concessionaire coordination; performance dashboards; and continual review of passenger feedback. These practices do not automatically guarantee a positive airport image, but they provide organisational mechanisms through which reliable service delivery may be supported.

Airport Service Quality

Airport service quality concerns passengers' evaluation of the services and facilities encountered during their airport journey. Unlike a single-provider service, the airport experience is produced by a network of processes and providers. Measurement should therefore reflect the airport context rather than assume that a generic service-quality scale captures every relevant feature. Tsai et al. (2011), for example, developed a gap-analysis approach for improving airport service quality, while Park and Park (2018) examined the role of airport transfer amenities and servicescape in passengers' behavioural intentions.

For the proposed framework, airport service quality is organised into three dimensions. The categories are a conceptual synthesis for this paper and should be operationally defined and validated before use in a survey.

Physical-Environment Quality

Physical-environment quality refers to passengers' perceptions of terminal facilities and the environment in which services are delivered. Relevant indicators may include cleanliness, seating availability, comfort, signage, wayfinding, accessibility, lighting, washrooms, queue areas, digital information and the layout of passenger facilities. The servicescape literature indicates that the built environment can influence emotional responses and behavioural intentions; airport-specific research has similarly examined transfer facilities and the physical environment (Park & Park, 2018).

Interactional Quality

Interactional quality refers to the quality of interpersonal and technology-mediated interactions during the passenger journey. It may include staff courtesy, responsiveness, clarity of information, empathy, perceived competence, assistance during disruptions and the usability of self-service systems. Digital check-in, automated gates and self-service facilities can reduce some direct staff interactions, but they do not remove the need for clear information, accessible support and effective recovery when systems fail. Accordingly, interactional quality should include both employee encounters and passengers' ability to obtain assistance.

Outcome Quality

Outcome quality concerns the results passengers receive from airport processes. Possible indicators include timely processing, dependable baggage handling, smooth connections between stages, perceived security, accurate information, reduced avoidable waiting and successful completion of departure or arrival procedures. These outcomes matter because courteous interactions or attractive facilities may not fully offset repeated operational failures. The proposed construct should distinguish objective operational measures, where available, from passengers' subjective assessments.

Passenger Satisfaction

Passenger satisfaction is an overall evaluation of an experience in relation to expectations and perceived performance. It can reflect both individual encounters and the passenger's assessment of the journey as a whole. In airport research, satisfaction is important because passengers may use it when forming behavioural intentions and evaluating the airport. Bezerra and Gomes (2020) reviewed antecedents and consequences of passenger satisfaction with airports, while Mainardes et al. (2021) examined relationships among airport service quality, satisfaction and corporate image.

Satisfaction should not be treated as identical to service quality. Service quality typically represents a judgement about the performance of service attributes, whereas satisfaction is an overall response to an experience. This distinction supports the proposed model in which TQM and service-quality dimensions may influence satisfaction, which may in turn be associated with airport image.

Airport Image

Airport image refers to the overall set of beliefs, associations and feelings that people hold about an airport. It may include functional perceptions (for example, efficiency, cleanliness and reliability), affective responses (for example, comfort or stress), and broader symbolic associations with modernity, trustworthiness or the destination. Nghiêm-Phú and Suter (2018) showed that airport image can include functional and affective attributes and can contribute to visitors' first and last impressions of a city. Mainardes et al. (2021) found that airport service quality is relevant to corporate image, supporting the importance of service delivery in image formation.

Airport image is related to, but distinct from, reputation, satisfaction and destination image. Satisfaction is an evaluation of an experience; airport image is a broader perception that may accumulate over multiple

experiences and through information received from others. Future empirical work should use a clear definition and validated items to avoid conflating these constructs.

Passenger Satisfaction as a Mediator

A mediation argument proposes that an explanatory variable is associated with an outcome partly through an intervening variable. In this framework, TQM may improve consistency and responsiveness in service delivery; service quality may shape passengers' immediate evaluations; and satisfaction may help translate those evaluations into a more favourable airport image. This is a theoretical proposition, not an established causal finding for Abu Dhabi International Airport. Cross-sectional survey data could test indirect associations, but stronger causal claims would require appropriate temporal or experimental evidence.

Research Gap

The reviewed literature provides separate foundations for TQM, airport service quality, satisfaction and airport image. However, a context-specific framework connecting internal quality-management practices with three passenger-facing service-quality dimensions and a proposed satisfaction-mediated relationship can help organise future research on Abu Dhabi International Airport. The gap is conceptual and contextual: the present paper proposes a testable model rather than claiming that no previous study has examined any of these relationships.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

The framework positions TQM and the three service-quality dimensions as predictors of passenger satisfaction and airport image. Passenger satisfaction is also proposed to be associated with airport image and to mediate the relationships between TQM/service quality and airport image. Figure 1 summarises the proposed relationships.

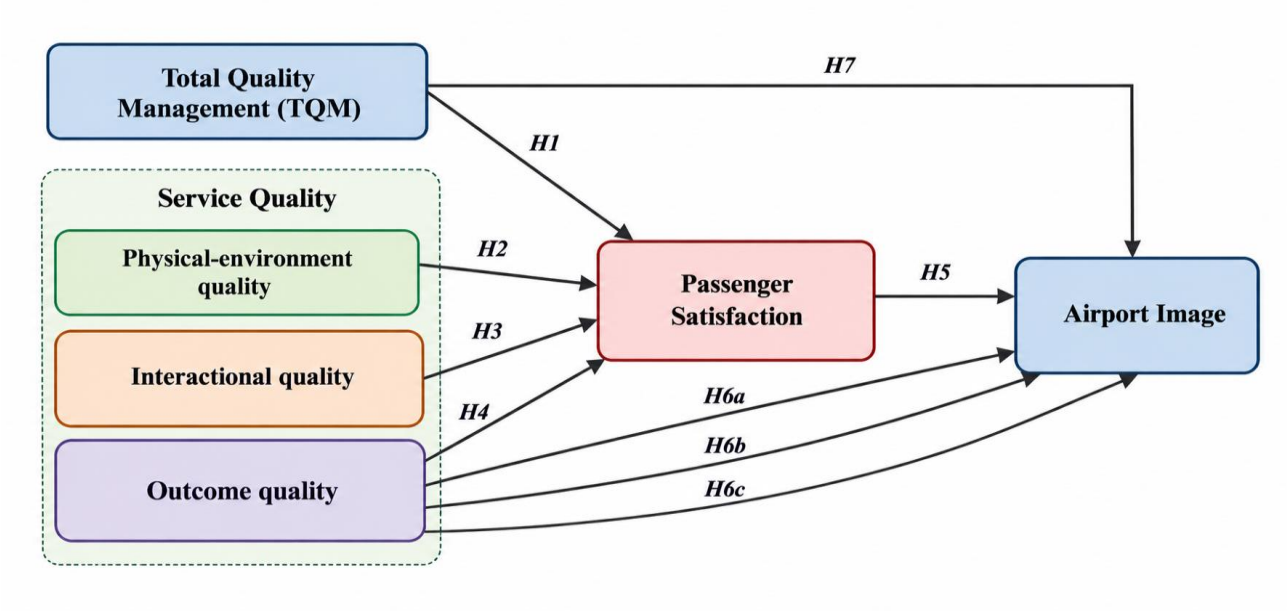


Figure 1. Proposed conceptual relationships (author-developed).

TQM and Passenger Satisfaction

TQM may support satisfaction by encouraging consistent processes, employee involvement, leadership accountability and the use of feedback to correct service failures. When these practices are applied across airport stakeholders, they may reduce avoidable variation in passenger-facing services. Accordingly:

H1: TQM is positively associated with passenger satisfaction at Abu Dhabi International Airport.

Service quality and passenger satisfaction

The airport environment, interactions and service outcomes are distinct but related parts of the passenger

experience. A clean and navigable terminal may reduce effort; helpful interactions may reduce uncertainty; and reliable outcomes may increase confidence in airport operations. Therefore:

H2a: Physical-environment quality is positively associated with passenger satisfaction.

H2b: Interactional quality is positively associated with passenger satisfaction.

H2c: Outcome quality is positively associated with passenger satisfaction.

TQM, Service Quality and Airport Image

TQM may contribute to airport image by supporting dependable processes and a consistent service promise. Passengers may also form image judgements directly from the facilities, interactions and outcomes they experience. Airport-image research supports the relevance of service quality to corporate image, although the strength of the relationship must be tested in the specific airport context (Mainardes et al., 2021). Thus:

H3: TQM is positively associated with the image of Abu Dhabi International Airport.

H4a: Physical-environment quality is positively associated with airport image.

H4b: Interactional quality is positively associated with airport image.

H4c: Outcome quality is positively associated with airport image.

Passenger Satisfaction and Airport Image

Passengers who evaluate their airport experience favourably may develop a more favourable overall perception of the airport. Satisfaction is therefore expected to be associated with airport image, while recognising that image may also be influenced by prior beliefs, media, destination associations and experiences outside the airport.

H5: Passenger satisfaction is positively associated with the image of Abu Dhabi International Airport.

Mediating Role of Passenger Satisfaction

The proposed mediation logic is that TQM and service quality can shape airport image both directly and indirectly through passenger satisfaction. The indirect pathway would be supported if the relevant predictor is associated with satisfaction, satisfaction is associated with image after accounting for the predictor, and the indirect effect is statistically supported. This should be evaluated using a suitable mediation procedure and confidence intervals rather than inferred from separate significant correlations.

H6: Passenger satisfaction mediates the association between TQM and airport image.

H7: Passenger satisfaction mediates the associations between airport service quality and airport image.

For empirical testing, H7 can be estimated separately for physical-environment quality, interactional quality and outcome quality. This avoids treating service quality as a single undifferentiated construct when the model specifies three dimensions.

METHODOLOGY FOR THE CONCEPTUAL REVIEW

This paper uses a literature-informed conceptual approach to develop a framework. The source manuscript describes searches of Google Scholar and ResearchGate using combinations of terms related to TQM, service

quality, satisfaction and image. However, it does not provide a reproducible search date, complete search strings for each database, record counts, screening decisions, duplicate-removal procedure or a formal quality-appraisal process. For that reason, the review should not be described as a fully systematic review under a formal reporting standard.

The conceptual synthesis focuses on literature relevant to: (a) quality-management principles and TQM practices; (b) airport service quality and servicescapes; (c) passenger satisfaction; and (d) airport/corporate image. The relationships were organised deductively into a proposed framework and hypotheses. Sources from non-airport service settings are used only as supporting conceptual evidence, and their applicability to airports should be tested rather than assumed.

The earlier source manuscript included a demographic table reporting 400 respondents but did not provide the survey instrument, sampling procedure, ethics information, analytical strategy or corresponding results needed to evaluate those figures. The table is therefore not treated as evidence in this conceptual paper. If the underlying dataset exists, it should be reintroduced only after the authors verify the data and report the complete empirical protocol and results.

Recommendations for a Future Empirical Study

A future study could survey passengers who have recently used Abu Dhabi International Airport. The population, eligibility criteria, sampling approach, recruitment locations, data-collection period, sample-size justification and ethics procedures should be stated explicitly. Questionnaire items should be adapted from validated airport service-quality, satisfaction and image measures, reviewed by subject experts and pilot-tested with the target population. Translation procedures should be reported if more than one language is used.

The measurement model should be assessed before structural hypotheses are tested. Reliability and validity checks should include suitable internal-consistency measures, convergent validity and discriminant validity. The analytical method should be selected according to the model, data properties and research objectives rather than chosen solely because it is common in prior studies. For mediation, report the indirect effect and confidence interval, alongside direct and total effects. If the study is cross-sectional, describe the results as associations and acknowledge limits on causal inference.

DISCUSSION

The framework brings together organisational and passenger-facing explanations of airport image. TQM represents the internal system through which service standards may be set, communicated, monitored and improved. The three service-quality dimensions represent passengers' experiences of the environment, interactions and outcomes. Satisfaction is positioned as a potential mechanism through which these experiences are reflected in the airport's broader image.

For managers, the framework suggests that image improvement should not rely only on promotional communication or terminal appearance. It may require coordinated operational improvement across the passenger journey. Examples include reviewing queues and processing times, making wayfinding clearer, monitoring cleanliness and accessibility, training frontline personnel, improving support for self-service technologies, and using complaints and passenger feedback to identify recurring service failures. These are managerial implications derived from the conceptual model; their effectiveness at Abu Dhabi International Airport has not been empirically established by this paper.

The framework also encourages managers to distinguish between service attributes and overall evaluations. A high average satisfaction score can conceal a specific failure point, while a visually impressive terminal may not compensate for unreliable processing or poor disruption communication. Monitoring disaggregated indicators across the three service-quality dimensions may therefore provide more actionable evidence than a single overall service score.

Finally, TQM implementation at an airport requires coordination beyond the airport operator alone. Airlines, ground handlers, security and border agencies, concessionaires and other partners contribute to passenger

experience. A process-oriented approach can help clarify responsibilities, escalation routes, service-level expectations and shared performance measures. The proposed relationships offer a structure for investigating whether such coordination is associated with passenger satisfaction and airport image.

Theoretical and Practical Implications

Theoretical Implications

The paper integrates TQM with airport service quality and airport image in one conceptual model. It distinguishes internal quality-management practices from passenger-perceived service quality and separates satisfaction from airport image. It also specifies a potential mediating pathway that can be tested in future research. These distinctions may improve construct clarity and support comparison across airport settings.

Practical Implications

Airport leaders could use the framework to organise service-improvement priorities around (1) governance and continuous improvement, (2) physical environment, (3) staff and technology-mediated interactions, (4) operational outcomes, and (5) passenger satisfaction and image indicators. Each area should have clear ownership, measurable service standards, a feedback process and periodic review. Before resources are allocated, managers should validate which attributes matter most to their passenger segments and compare perceived quality with operational evidence.

Proposed Empirical Research Design for Validation

The framework is proposed for empirical validation rather than presented as an already tested model. A sequential mixed-method design is recommended: (1) qualitative process mapping to ensure that the constructs reflect the passenger journey at Abu Dhabi International Airport; (2) a pilot survey to refine the measures; and (3) a cross-sectional passenger survey analysed using covariance-based SEM or partial least squares SEM, selected according to the study's confirmatory or prediction-oriented objective, measurement model and data characteristics. The phases below are a research protocol, not a report of activities already completed.

Airport-Specific Construct Operationalisation

TQM should be measured as an organisational and cross-functional capability, not as a vague overall label. Candidate indicators include leadership accountability for service standards, staff training and empowerment, process standardisation, continuous improvement, use of passenger feedback, performance monitoring and coordination among airport stakeholders. Because several services are delivered by separate organisations, survey items should distinguish the airport operator's influence from services controlled by airlines, ground handlers, security providers and government agencies.

Physical-environment quality can be operationalised through terminal cleanliness, comfort, signage and wayfinding, accessibility, queue-area design, seating, washrooms, information displays and the perceived ease of moving between facilities. Interactional quality can include staff courtesy, clarity of instructions, responsiveness, consistency of information and the usability and reliability of digital self-service kiosks and other automated interfaces. Outcome quality can include perceived processing efficiency, reliability of baggage delivery, confidence in the completion of check-in and security processes, ease of connections and perceived smoothness of inter-terminal transit. Items relating to customs and immigration should measure the passenger's experience of clarity, queue management and perceived process flow without implying that the airport operator controls sovereign border decisions.

Passenger satisfaction should capture the passenger's overall evaluation of the airport experience, while airport image should measure the broader overall impression, perceived competence, modernity, reliability and attractiveness associated with the airport. These constructs should be measured separately to avoid treating satisfaction and image as interchangeable. The final instrument should adapt validated scales where suitable, be reviewed by airport-service and research-methodology experts, and undergo cognitive interviews and a pilot test before field deployment.

Qualitative Process Mapping and Case-Based Observations

Before launching the survey, conduct semi-structured interviews or structured observations at selected

passenger touchpoints, subject to airport access permissions and ethics approval. Suggested touchpoints are departure check-in and bag drop, security queues, immigration or customs interfaces where access is permitted, self-service kiosks, baggage reclaim, transfer desks, wayfinding points and inter-terminal connections. Participants may include passengers and, where access is approved, frontline staff or operational managers. The purpose is to identify service breakdowns, hand-offs, waiting-related concerns and differences between the service standard and the passenger's experienced outcome.

Use a documented observation protocol and interview guide. Record the date, time band, touchpoint, observed process, disruption or friction point, and potential construct represented; do not record identifiable passenger information. Analyse interview notes using thematic coding and compare themes across touchpoints. These observations should be reported as actual findings only after the fieldwork has been conducted. In the current paper they are proposed procedures, not claimed observations.

Population, Sampling and Sample-Size Planning

The target population is adult passengers who have recently used Abu Dhabi International Airport and are able to provide informed consent. Eligibility criteria, language options, recruitment windows and whether the sample covers departing, arriving and transfer passengers should be specified before data collection. A stratified time-location approach is preferable where operational permission allows, with recruitment across different days, time bands and passenger journey types. If probability sampling is not feasible, a transparent convenience or quota-based approach may be used, with the limitation that results may not represent all airport users. Avoid recruiting only from one terminal, one airline or one narrow time window.

The sample size should be determined before data collection using an a priori power analysis or a Monte Carlo simulation based on the proposed model, anticipated effect sizes, number of indicators, model complexity, desired power and expected non-response. A generic rule such as a fixed number of respondents per item should not be the sole justification. The earlier source manuscript's figure of 400 respondents should not be treated as a verified sample unless the authors can document the original dataset, recruitment and exclusions.

Survey Administration, Ethics and Data Preparation

The questionnaire should include screening and consent information, passenger journey characteristics, construct items and relevant control variables such as trip purpose, frequency of airport use, journey type (departure, arrival or transfer), travel class where appropriate, and whether the passenger used self-service technology. Translation and back-translation should be considered for languages used in the field. Obtain institutional ethics approval and required airport permissions before recruitment. Participation must be voluntary, data should be anonymised or pseudonymised as approved, and no operationally sensitive or personally identifiable information should be collected without a clear approved basis.

Before modelling, screen for duplicate submissions, ineligible cases, missingness, straight-lining, unusual response patterns and outliers. Report the number approached, number consenting, exclusions and final analytic sample. Describe missing-data treatment and any transformations. The analysis plan should be specified before hypothesis testing to reduce discretionary analytical decisions.

Structural Equation Modelling Protocol

First, report descriptive statistics and assess the data distribution, missingness and potential common-method bias using multiple procedural and statistical checks rather than relying on a single diagnostic. Second, evaluate the measurement model. For reflective constructs, report standardised factor loadings, internal consistency (for example, composite reliability and, where appropriate, Cronbach's alpha), average variance extracted, and discriminant validity using an appropriate criterion such as HTMT alongside theoretical

assessment. If constructs are specified as formative or higher-order composites, justify that specification and use the corresponding assessment procedures.

Third, estimate the structural model and report standardised path coefficients, confidence intervals, p-values or other justified inferential statistics, explained variance and relevant model-fit indices for covariance-based SEM. Assess multicollinearity and inspect whether the signs and magnitudes of the estimates are theoretically plausible. Report all tested paths, including non-significant paths, and provide a transparent account of any model respecification. Use bootstrapping or an appropriate confidence-interval procedure for indirect effects.

The mediation hypotheses should be tested by estimating the indirect effect of TQM on airport image through passenger satisfaction and the indirect effects of each service-quality dimension through satisfaction. Report the indirect-effect estimate and its confidence interval; do not infer mediation solely from the significance of separate component paths. If data are cross-sectional, interpret indirect effects as statistical mediation consistent with the proposed model, not definitive proof of causal ordering. A longitudinal or multi-wave design would strengthen temporal inference.

Operational Benchmarks and Triangulation

Where access and data quality permit, triangulate passenger perceptions with historical or contemporaneous operational indicators, such as average and upper-percentile queue times, baggage-delivery times, missed connection incidents, self-service kiosk availability, service-recovery response times, complaints per passenger volume and accessibility-related service reports. Define each metric, its data owner, period, unit, denominator and any changes in measurement. Compare trends across comparable periods and account for seasonal traffic, flight schedules and disruptions. This paper does not provide verified historical airport metrics; such figures must be obtained from authoritative airport or government sources and cited before inclusion.

Hypothesis-to-Analysis Mapping

H1 (TQM → satisfaction), H2a–H2c (the three service-quality dimensions → satisfaction), H3 (TQM → airport image), H4a–H4c (the service-quality dimensions → airport image) and H5 (satisfaction → airport image) should be tested as direct structural paths. H6 (TQM → satisfaction → airport image) and H7a–H7c (each service-quality dimension → satisfaction → airport image) should be tested as specific indirect effects. This mapping ensures that the mediation claim is evaluated separately for TQM and each service-quality dimension.

Refined Contribution and Boundary Conditions

CONCLUSION

This conceptual paper proposes that TQM and airport service quality may contribute to the image of Abu Dhabi International Airport, with passenger satisfaction serving as a potential mediator. TQM provides an organisation-wide basis for leadership, employee engagement, process consistency and continual improvement, while physical-environment, interactional and outcome quality describe important aspects of the passenger experience. The hypotheses offer a structured agenda for empirical testing and a practical lens for organising service-improvement efforts. Because no new survey analysis is reported here, the proposed relationships should be interpreted as hypotheses rather than demonstrated effects.

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The proposed contribution is not that TQM, service quality or satisfaction are new constructs. Rather, it is the integration of an internal quality-management perspective with passenger-facing quality dimensions and airport image in a model tailored to the multi-actor airport journey. The framework makes the operational

interfaces visible: the passenger's experience can be affected by the built environment, staff and digital interactions, process outcomes and coordination among organisations that do not share a single reporting line.

This context-specific framing also identifies boundary conditions that future studies should examine. The strength of relationships may vary by journey type, disruption status, transfer complexity, use of self-service

technology, passenger familiarity and the extent to which a service is controlled by the airport operator rather than an external stakeholder. These are testable extensions, not findings established by the present conceptual analysis.

LIMITATIONS AND FUTURE RESEARCH

This paper is conceptual and does not report primary data, case observations, operational benchmark results or statistical tests. Consequently, the proposed paths and mediation effects remain unverified. The literature-search description available from the source manuscript is not sufficiently detailed to constitute a fully reproducible systematic review. The proposed airport-specific indicators require content validation and pilot testing, and the cross-sectional survey design would limit causal inference. Access to operational data and to observations of security and border-processing interfaces may also be restricted. These limitations should be addressed in the next empirical phase rather than obscured by unsupported claims.

Future research should document a transparent review protocol or conduct a primary empirical study. A multi-airport design could assess whether the proposed relationships differ by airport size, passenger purpose, nationality, travel frequency or passenger segment. Longitudinal research could examine whether improvements in service processes precede changes in satisfaction and image. Studies could also compare passengers' perceptions with operational indicators such as waiting times, baggage performance, complaint resolution and accessibility. Any such study should report its data, measures and analyses in sufficient detail for independent assessment.

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