



Conceptual Analysis of the Implementation of Digital-Based Services for Umrah Pilgrims

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Abstract

This study aims to conceptually analyze the implementation of digital-based services for Umrah pilgrims in enhancing service quality. The background of this research is driven by advancements in information and communication technology, which have catalyzed transformations across various sectors, including the management of Umrah pilgrimage services. The increasing number of pilgrims and the growing complexity of services necessitate a more effective, efficient, and integrated system through the utilization of digital technology. This research employs a qualitative approach with a library research method, examining various relevant scientific literature sources such as journal articles, books, and official documents related to service digitalization and Umrah service management. Data analysis techniques include content analysis and descriptive analysis to identify patterns, concepts, and relationships between findings from various sources. The results indicate that the implementation of digital-based services in Umrah management is realized through the integration of various systems, such as online registration, pilgrim data management, electronic payment systems, and the use of mobile applications and digital communication platforms. Digitalization provides benefits in increasing operational efficiency, information transparency, and ease of service access for pilgrims. However, implementation also faces several challenges, particularly regarding human resource readiness, technological infrastructure limitations, and low digital literacy among some pilgrims. In conclusion, the digitalization of Umrah pilgrim services is a multidimensional and strategic transformation process in improving service quality. Its successful implementation requires technological support, organizational readiness, and capacity building for users to ensure optimal and sustainable operations.

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INTRODUCTION

The development of digital technology in recent decades has driven significant transformations in various sectors of life, including public and religious services. Digitalization not only alters economic and social interaction patterns but also influences the delivery systems of religious services, including Umrah. In this context, digitalization is defined as the utilization of information and communication

technology to improve operational efficiency, service quality, and transparency in pilgrim service management.

Along with the increasing number of Umrah pilgrims each year, the demand for fast, accurate, and integrated service quality continues to rise. Umrah travel organizers are faced with the complexity of data management, administration, and communication with a large number of pilgrims. Without the support of an adequate digital system, various issues such as service delays, data errors, and limited access to information are difficult to avoid. Therefore, digitalization is no longer optional but has become a strategic necessity in enhancing service effectiveness and competitiveness.

Numerous studies have shown that the implementation of information systems in Hajj and Umrah services contributes to increased efficiency, effectiveness, and pilgrim satisfaction (Arvita, 2021; Kurniawan et al., 2025; Kusumawati, 2023). Furthermore, the use of digital technology in the service sector, in general, is proven to expand access to information and improve the quality of interaction between service providers and users (Yunaningsih et al., 2021). Information system integration is also a crucial factor in enhancing service quality and user satisfaction (William H. & Ephraim R., 2003). In the context of Umrah services, information technology plays a role in supporting service effectiveness, although its implementation still faces various obstacles (Arvita, 2021; Kusumawati, 2023).

Nonetheless, most of these studies tend to focus on testing relationships between variables, such as the influence of information systems on user satisfaction, and have not deeply examined how the comprehensive implementation process of digital-based service management takes place. In fact, understanding the implementation process is vital for identifying the dynamics, challenges, and interactions between factors that influence the success of service digitalization. In other words, there is a research gap in the conceptual and processual aspects of implementing digital-based Umrah pilgrim services that has not been systematically explored.

On the other hand, the implementation of Umrah service digitalization also faces various structural and cultural challenges. Human resource readiness is a primary issue, particularly regarding the level of digital literacy among both organizers and pilgrims. Additionally, limitations in technological infrastructure among small and medium-sized organizers, as well as suboptimal regulation and oversight, have the potential to hinder implementation effectiveness. This condition indicates that the success of digitalization is determined not only by the availability of technology but also by the readiness of the organization, the users, and a supportive regulatory environment.

Departing from these issues, this study focuses on a conceptual analysis of the implementation of digital-based Umrah pilgrim services. This approach is considered important for building a theoretical framework capable of explaining the relationships between factors more integratively, so that it not only describes the phenomenon but also provides a conceptual basis for developing service models that are adaptive to technological developments.

This research employs a qualitative approach with a library research method, specifically by reviewing various relevant scientific literature sources without conducting field data collection. This approach allows for a deeper exploration of theories, concepts, and previous empirical findings related to service digitalization and Umrah service management.

Based on the description above, the research questions in this study are: (1) how is the concept of digital-based Umrah pilgrim service implementation, (2) what are the factors that support and hinder such implementation, and (3) what are the opportunities for its future development. The

objective of this study is to conceptually analyze the implementation of digital-based Umrah pilgrim services, identify supporting and inhibiting factors, and formulate a conceptual framework that can serve as a reference in developing digital-based Umrah services.

This research is expected to provide significant contributions both theoretically and practically. Theoretically, this study contributes to enriching the literature on service management and information systems, particularly in the context of digital-based religious services, which is still relatively limited. Practically, the results of this study are expected to serve as a reference for Umrah travel organizers in optimizing the use of digital technology and as a basis for consideration for the government in formulating integrated, adaptive, and sustainable Umrah service digitalization policies.

METHOD

This research employs a qualitative approach with a library research type, which aims to deeply examine the concept of implementing digital-based services for Umrah pilgrims through the analysis of various relevant scientific literature sources. The qualitative approach was chosen because it is oriented towards understanding phenomena holistically and interpretatively, rather than testing hypotheses or measuring quantitative variables. According to Creswell (2014), qualitative research is used to explore and understand the meaning of social or human problems. Meanwhile, library research is a method that utilizes written sources as the primary data to be analyzed systematically (Snyder, 2019; Zed, 2014).

This study does not involve field data collection such as interviews or observations; instead, it focuses on the search and analysis of literature related to service digitalization, information systems, and Umrah service management. Through this approach, the researcher can build a comprehensive conceptual framework based on various theoretical perspectives and previous research findings (Nazir, 2014; Zed, 2014).

The data sources in this research consist of primary and secondary data. Primary data include scientific articles published in accredited national journals and reputable international journals relevant to the research topic. Meanwhile, secondary data are obtained from reference books, seminar proceedings, research reports, and official documents such as government regulations concerning the organization of Umrah pilgrimages. According to Sugiyono (2019) and Zed (2014), secondary data are data sources obtained indirectly through documents or other supporting sources.

Data collection techniques are carried out through documentation studies and literature reviews. Documentation study is conducted by identifying, collecting, and organizing various relevant written documents. According to Arikunto (2013) and Sugiyono (2019), the documentation method is a data collection technique through records, books, and documents. Furthermore, the literature review is conducted by reading, understanding, and critically examining various sources to obtain information that aligns with the research focus.

The data analysis techniques used are content analysis and descriptive analysis. Content analysis is utilized to identify and interpret meanings from the analyzed documents. Krippendorff (2018) states that content analysis is a technique for producing valid and replicable inferences while considering the data context. The analysis process begins with an in-depth reading of all literature, followed by comparing various concepts and research findings to identify patterns, similarities, and differences.



Figure 1. Research Process

Subsequently, the data are categorized into relevant themes, such as service digitalization concepts, supporting and inhibiting factors, and digital-based service implementation models. The results of the analysis are then interpreted descriptively in a systematic narrative form. The final stage is inductive conclusion drawing based on the findings obtained. According to Miles, Huberman, and Saldaña (2014), qualitative data analysis proceeds through three stages: data condensation, data display, and conclusion drawing and verification.

To ensure data validity, this study utilizes the source triangulation technique. Moleong (2017) explains that source triangulation is performed by comparing various data from different sources to ensure information accuracy. In this study, triangulation is conducted by comparing references from journals, books, and official documents to obtain a more comprehensive understanding and minimize bias.

In addition, data validity is supported by the selection of credible, relevant, and up-to-date sources, as well as an analysis process conducted systematically and transparently. Thus, the research results are expected to have good validity and reliability and be scientifically accountable. This approach is expected to contribute to the development of conceptual studies regarding the implementation of digital-based Umrah pilgrim services and serve as a foundation for future empirical research.

RESULTS AND DISCUSSION

Summary of Findings from Various Sources

Based on the results of the literature review, the digitalization of Umrah pilgrim services is an integral part of the transformation of religious services influenced by developments in information and communication technology. This transformation is marked by a shift in service systems from conventional patterns toward more integrated and systematic digital-based systems. In the context of religious tourism, the use of digital technology consistently shows a contribution to increasing the efficiency of administrative processes as well as accuracy in user data management (Buhalis & Law, 2008).

Beyond administrative aspects, digitalization also expands the service dimension through improving the quality of interaction between organizers and pilgrims. Digital-based systems allow for the distribution of information in real-time, enabling pilgrims to access service information more quickly, precisely, and easily (William H. & Ephraim R., 2003). This indicates that technology functions not only as an operational tool but also as a communication medium that strengthens the relationship between service providers and users. Furthermore, the utilization of digital applications in Umrah management contributes to the provision of services that are more structured, planned, and easily accessible to pilgrims (Kusumawati, 2023).

In the aspect of transparency, the literature shows that digitalization plays a role in increasing the openness of service information. Information related to costs, departure schedules, and provided facilities can be accessed more clearly and systematically by pilgrims. This condition indirectly drives an increase in the accountability of service providers. The application of information technology in public services is also proven to strengthen user trust through ease of access to information and the clarity of the services provided (Indrajit, 2016; Kurniawan et al., 2025; Sutabri, 2012).

However, literature findings also indicate that the implementation of digitalization does not proceed entirely without obstacles. Several studies show variations in the level of user readiness, particularly regarding the digital literacy of pilgrims. On the other hand, the readiness of organizers in providing systems that are stable, secure, and integrated is also a factor affecting service effectiveness. Despite various constraints, the literature generally shows a trend that the digitalization of Umrah services continues to evolve and is increasingly becoming an essential part of modern service systems.

Classification and Grouping of Information

Based on the synthesis of various literature sources, the findings of this research can be classified into several main categories that represent important aspects of the implementation of digital-based Umrah pilgrim services.

1. Forms of Digital Service Implementation

The implementation of digital services in Umrah management is realized in various forms of integrated technology-based services. One of the main forms is the online registration system, which allows pilgrims to perform the registration process flexibly without the limitations of space and time. Additionally, digital-based pilgrim data management systems allow the process of storing, processing, and monitoring data to be carried out more systematically and accurately.

Furthermore, electronic payment systems have become an important part of supporting financial transaction efficiency. The use of mobile applications also shows a significant role in providing travel information, such as activity schedules, worship guides, and important location information during the Umrah pilgrimage. In addition, digital communication platforms such as

instant messaging applications and service portals help strengthen the continuous interaction between organizers and pilgrims.

2. Benefits of Digital Service Implementation

Literature consistently shows that the application of digital-based services has a positive impact on the quality of Umrah services. One of the main benefits is the increase in efficiency in administrative processes, where various service stages can be completed more quickly compared to conventional systems.

Moreover, digitalization contributes to improving the accuracy of data management, thereby minimizing the potential for administrative errors. Digital systems also enable more organized information management, making it easier for organizers to perform monitoring and evaluation of services. Increased service transparency also impacts the trust of pilgrims toward the organizers.

Ease of access to information is also a significant benefit, where pilgrims can obtain service information independently without full dependence on direct communication. This condition shows that digitalization not only increases operational efficiency but also broadens the overall accessibility of services.

3. Supporting Factors for Implementation

The success of digital service implementation is influenced by several key supporting factors. Adequate information technology infrastructure is a vital prerequisite to ensure the system runs optimally. The availability of a stable internet network, adequate technological devices, and reliable application systems are essential elements in supporting digital services.

Additionally, human resource competence plays a role in the success of implementation. The ability of the workforce to operate and manage digital systems will determine the effectiveness of the services provided. Organizational management support is also a strategic factor, particularly in decision-making and the provision of necessary resources.

Another equally important factor is government policy support. Clear regulations that support digitalization provide a strong legal foundation for organizers to develop technology-based services.

4. Inhibiting Factors for Implementation

In addition to supporting factors, the literature also identifies various barriers to the implementation of digital services. One of the main obstacles is the limited digital literacy among some pilgrims, which results in the sub-optimal utilization of digital services.

Technological infrastructure limitations in several regions also pose a constraint affecting access to services. Furthermore, the cost aspect of developing and maintaining digital systems is an important consideration for organizers, especially those of small and medium scale.

Another barrier that arises is resistance to change. The transition from a manual system to a digital system requires an adaptation process that does not always happen instantaneously. Therefore, an appropriate approach to managing change is needed so that implementation can run effectively.

Main Findings from the Literature

Based on the overall results of the literature review, several main findings can be identified that show common patterns across sources. First, the digitalization of Umrah pilgrim services is an

unavoidable necessity in facing the dynamics of technological development and the increasing number of pilgrims.

Second, the implementation of digital-based services consistently has a positive impact on improving service quality, specifically in aspects of operational efficiency, transparency, and information accessibility. This finding indicates that digitalization holds a strategic role in modernizing the Umrah service system.

Third, the success of implementation relies heavily on the readiness of human resources and technological infrastructure. These two aspects are the primary foundation in determining the effectiveness of the system applied.

Fourth, although various obstacles exist, the literature shows that these constraints are adaptive and can be overcome through increased digital literacy, strengthening infrastructure, and sustainable policy support.

Overall, the results of this research indicate that the implementation of digital-based Umrah pilgrim services has developed significantly and is moving toward a service system that is more modern, integrated, and technology-based. These findings provide a comprehensive overview of the characteristics and dynamics of digital services in Umrah management based on the various literature sources reviewed.

Umrah Service Transformation in the Perspective of Digitalization

The transformation of digital-based Umrah pilgrim services reflects a paradigm shift in service management, moving from a conventional approach toward a technology-based, user-value-oriented approach. In the perspective of services marketing management, digitalization is not only about technology adoption but also concerns how organizations create, deliver, and enhance service value sustainably (Kotler & Keller, 2016).

Research findings indicate that digitalization has altered the structure of Umrah services to become more integrated and responsive. This change suggests that technology acts as an enabler in creating a service system that is more adaptive to the needs of pilgrims. Thus, digitalization is not merely a technical innovation but a strategic transformation within the service system.

From a service quality perspective, digitalization strengthens the dimensions of speed, accuracy, and ease of access to information. This is relevant to the service quality concept proposed by Parasuraman et al. (1985), where perceived quality is determined by the service's ability to meet user expectations. In the context of Umrah, the ease of access to information through digital systems indicates an improvement in functional and informational service quality.

Furthermore, digitalization expands the dimensions of transparency and accountability. The openness of information facilitated by digital technology not only increases pilgrim trust but also reduces information asymmetry between organizers and users. This aligns with the findings of Venkatesh et al. (2020), which emphasize that ease of use and system accessibility are vital factors in increasing technology acceptance.

Consequently, digital transformation in Umrah services demonstrates that technology serves as a catalyst in improving overall service quality, both from operational aspects and the user experience.

Analysis of Digital Service Implementation Forms

The identified forms of digital service implementation show an increasingly complex integration of systems within the service process. This integration reflects the application of integrated information system concepts that emphasize the importance of connectivity between subsystems in enhancing organizational efficiency and coordination (Laudon & Laudon, 2018).

In the context of Umrah, the integration between registration systems, data management, payments, and communication shows that digital services have evolved from a partial approach toward a holistic system. This indicates that the success of digitalization depends not only on the existence of technology but also on the organization's ability to integrate various service functions.

The use of mobile applications as part of digital services also shows a shift toward a mobility-based service model. High accessibility allows pilgrims to interact with the service system flexibly, thereby strengthening user engagement in the service process. In this regard, mobile applications function not only as information media but also as a means of creating more personal and contextual service value.

Analysis of the Benefits of Digital-Based Services

The benefits of digital-based services can be seen not only from the side of operational efficiency but also from the improvement in the quality of the user experience. Digitalization allows organizations to optimize resource use while simultaneously increasing the speed and accuracy of services. In a public service perspective, transparency is an important indicator in assessing service quality (Dwiyanto, 2011). Digitalization enables broader information openness, thereby increasing user trust in the service. This shows that technology plays a role in strengthening systemic service accountability.

Moreover, the acceptance of digital services is also influenced by the perceived ease of use and benefits felt by the user. This is in line with the Technology Acceptance Model (TAM) put forward by Davis (1989), which emphasizes that perceived ease of use and usefulness are the primary factors in technology adoption. In the context of Umrah, the ease of information access through digital systems encourages increased service usage by pilgrims. Thus, the benefits of digitalization are not only technical in nature but also reflect changes in the way users interact with the service.

Analysis of Supporting and Inhibiting Factors

The implementation of digital services is influenced by the interaction between internal and external factors. From the internal side, human resource competence is a determining factor in the success of technology adoption. Robbins & Judge (2017) assert that the ability of individuals to adapt to technological changes significantly determines organizational effectiveness. From the external side, technology infrastructure serves as the primary foundation in supporting the operation of digital systems (Laudon & Laudon, 2018). Without adequate infrastructure support, the potential of technology cannot be utilized optimally.

On the other hand, implementation barriers show that digitalization does not always proceed linearly. The low digital literacy of pilgrims reflects a gap between technological developments and user readiness. Additionally, resistance to change indicates that cultural aspects are also important factors in the digitalization process. This indicates that the success of digital implementation is determined not only by technical factors but also by social and organizational readiness in facing change.

Conceptual Implications of Digital Service Implementation

Conceptually, the implementation of digital-based Umrah pilgrim services shows that digitalization is a multidimensional transformation process. Change occurs not only in technological aspects but also in organizational structure, service processes, and the interaction patterns between organizers and pilgrims. In the service-dominant logic perspective, service value is not created unilaterally by the provider but through interaction between the provider and the user (Vargo & Lusch, 2008). Digital technology in this context acts as a medium that facilitates the co-creation of value.

Furthermore, the development of digital services is also related to the process of innovation adoption. Rogers (2003) explains that the acceptance of innovation is influenced by the characteristics of the innovation and the readiness of the user. Therefore, the success of Umrah service digitalization requires an approach that considers both technological and social aspects. In conclusion, digital service implementation can be understood as an integrative process that requires synergy between technology, people, and the organization. A comprehensive approach is the key to ensuring that digitalization is not only technically successful but also provides sustainable added value for users.

CONCLUSION

Based on the research results and discussion, it can be concluded that the implementation of digital-based Umrah pilgrim services is a form of religious service transformation influenced by developments in information and communication technology. Digitalization has shifted the service system from conventional patterns to a more integrated, systematic, and technology-based approach, thereby enhancing service management effectiveness.

The implementation of digital services in Umrah management is realized through various interconnected systems, such as online registration, pilgrim data management, electronic payment systems, and the use of mobile applications and digital communication platforms. The integration of these systems demonstrates that digitalization is not partial but rather forms a more modern and coordinated service ecosystem.

In terms of benefits, digitalization has a positive impact on improving service quality, particularly regarding operational efficiency, information transparency, and ease of service access for pilgrims. Furthermore, digitalization contributes to increasing pilgrim trust and satisfaction through information openness and clarity of the services provided.

However, the success of digital-based service implementation is influenced by various factors, notably human resource readiness and the availability of technological infrastructure. On the other hand, there are obstacles that need to be addressed, such as the low digital literacy of some pilgrims, limited access to technology, and resistance to change.

Overall, the implementation of digital-based services for Umrah pilgrims is a complex and multidimensional process. Its success is determined not only by technological aspects but also by organizational readiness, user preparedness, and adequate policy support. Therefore, a comprehensive approach is required to ensure that the digitalization of Umrah services can operate optimally and sustainably.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

In the preparation of this manuscript, the author(s) utilized Gemini (Google AI) to assist with the linguistic refinement and grammatical correction of the text. All outputs were subsequently

reviewed and revised by the author(s), who assume full responsibility for the final content of the publication.

REFERENCES

- Arikunto, S. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik* (Edisi Revisi). Rineka Cipta.
- Arvita, Y. (2021). Perancangan Sistem Informasi Pelayanan Travel Haji Dan Umroh. *Jurnal Ilmiah Media Sisfo*, 15(1), 9–18. <https://doi.org/10.33998/mediasisfo.2021.15.1.964>
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism Management*, 29(4), 609–623. <https://doi.org/10.1016/j.tourman.2008.01.005>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Dwiyanto, A. (2011). *Manajemen Pelayanan Publik: Peduli, Inklusif, dan Kolaboratif*. Gadjah Mada University Press.
- Indrajit, R. E. (2016). *Konsep Dan Strategi E-Government*. Andi.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education.
- Krippendorff, K. (2018). *Content Analysis: An Introduction to Its Methodology* (4th ed.). SAGE Publications.
- Kurniawan, A. A., Niswah, M., & Risman, A. (2025). HajjConnect: Sistem Manajemen Travel Haji & Umroh Berbasis Web dengan Fitur Pemesanan dan Pengelolaan Data Jamaah. *Jurnal Indragiri Penelitian Multidisiplin*, 5(3), 90–99. <https://doi.org/10.58707/jipm.v5i3.1302>
- Kusumawati, K. (2023). SISTEM INFORMASI PELAYANAN HAJI DAN UMROH BERBASIS ANDROID. *JURNAL SATYA INFORMATIKA*, 4(2), 33–41. <https://doi.org/10.59134/jsk.v4i2.449>
- Laudon, K. C., & Laudon, J. P. (2018). *Management Information Systems: Managing the Digital Firm* (15th ed.). Pearson.
- Nazir, Moh. (2014). *Metode Penelitian*. Ghalia Indonesia.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), 41–50. <https://doi.org/10.1177/002224298504900403>
- Robbins, S. P., & Judge, T. A. (2017). *Organizational Behavior* (17th ed.). Pearson Education.
- Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Sutabri, T. (2012). *Konsep sistem informasi*. Andi.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36(1), 1–10. <https://doi.org/10.1007/s11747-007-0069-6>
- Venkatesh, V., Bhadauria, V., Texas A&M University Texarkana, USA, Mahapatra, R., University of Texas Arlington, USA, Nerur, S., & University of Texas Arlington, USA. (2020). Performance Outcomes

- of Test-Driven Development: An Experimental Investigation. *Journal of the Association for Information Systems*, 21, 1045–1071. <https://doi.org/10.17705/1jais.00628>
- William H., D., & Ephraim R., M. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Yunaningsih, A., Universitas Langlangbuana, Indah, D., Universitas Langlangbuana, Eryanto Septiawan, F., & Universitas Langlangbuana. (2021). Upaya Meningkatkan Kualitas Layanan Publik Melalui Digitalisasi. *Altasia: Jurnal Pariwisata Indonesia*, 3(1), 9–16. <https://doi.org/10.37253/altasia.v3i1.4336>
- Zed, M. (2014). *Metode Penelitian Kepustakaan*. Yayasan Obor Indonesia.