

Digital Transformation in Public Religious Services: A Systematic Analysis of Policy Effectiveness, Inclusivity, and Responsiveness in the Society 5.0 Era

Rahmad Hidayat¹, M. Ariy Dermawan S², Mustamin³

^{1,2,3}Public Administration Program, Universitas Muhammadiyah Mataram, Indonesia

rahmad_dayat22@yahoo.com¹, ariy.dermawan@ummat.ac.id², mustamin@ummat.ac.id³

ABSTRACT

Keywords:

Digital Transformation;
Religious Public Services;
Policy Effectiveness;
Inclusivity and
Responsiveness.

Abstract: The development of digital technology in the Society 5.0 era is driving significant transformation in public religious services. This study aims to systematically analyze digital transformation by assessing the effectiveness of policies, the inclusivity of access, and the responsiveness of services to community needs. The method used is qualitative, employing a Systematic Literature Review (SLR) approach to sources from DOAJ, Scopus, and Google Scholar spanning the years 2016–2025. The analysis was conducted through a process of literature selection, synthesis, and interpretation to identify patterns and developments in the research variables. The results indicate that the integration of artificial intelligence and e-government enhances the efficiency, transparency, accuracy, and accessibility of religious services. This transformation also strengthens the contribution of these services to socio-economic development through increased productivity and social inclusion. However, there are ambivalent challenges in governance, such as the legitimacy of values, public trust, institutional capacity, and the digital divide. The success of this transformation heavily depends on the balanced integration of technological, social, and normative aspects to achieve effective, inclusive, and responsive services.

Kata Kunci:

Transformasi Digital;
Layanan Publik Berbasis
Agama; Efektivitas Kebijakan;
Inklusivitas dan Responsivitas.

Abstrak: Perkembangan teknologi digital dalam era Society 5.0 mendorong transformasi signifikan pada layanan keagamaan publik. Penelitian ini bertujuan menganalisis transformasi digital secara sistematis dengan menilai efektivitas kebijakan, inklusivitas akses, dan responsivitas layanan terhadap kebutuhan masyarakat. Metode yang digunakan adalah kualitatif dengan pendekatan Systematic Literature Review (SLR) terhadap sumber dari DOAJ, Scopus, dan Google Scholar pada rentang 2016–2025. Analisis dilakukan melalui proses seleksi, sintesis, dan interpretasi literatur untuk mengidentifikasi pola dan perkembangan variabel penelitian. Hasil menunjukkan bahwa integrasi artificial intelligence dan e-government meningkatkan efisiensi, transparansi, akurasi, serta aksesibilitas layanan keagamaan. Transformasi ini juga memperkuat kontribusi layanan terhadap pembangunan sosial-ekonomi melalui peningkatan produktivitas dan inklusi sosial. Namun, terdapat karakter ambivalen berupa tantangan tata kelola, seperti legitimasi nilai, kepercayaan publik, kapasitas institusional, dan kesenjangan digital. Keberhasilan transformasi sangat bergantung pada integrasi aspek teknologi, sosial, dan normatif secara seimbang guna mewujudkan layanan yang efektif, inklusif, dan responsif.

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A. INTRODUCTION

Digital transformation in the public sector is a systemic change process that leverages technology to improve the quality of services provided to the public in a sustainable and measurable manner (Latupeirissa et al., 2024). In the context of the Society 5.0 era, the integration of digital technology has become a strategic element in creating services that are efficient, transparent, accountable, and holistically oriented toward human needs. This development has also shifted public expectations regarding public services, which are now increasingly fast, adaptive, and based on data and sustainable innovation (Diana et al., 2025). Religious services, as an integral part of public services, are also undergoing this transformative dynamic, thereby requiring policies that are responsive, contextual, and systematically sustainable.

Religious services have distinctive characteristics because they are not merely administratively oriented but also encompass spiritual, social, and normative dimensions in the broader community (Ongaro et al., 2024). Digital transformation in this sector is reflected through various innovations, such as online-based Hajj and Umrah registration services, digital zakat payment systems, and the management of religious administration through increasingly developed integrated applications (Khan et al., 2025). Digital technology opens opportunities to expand access to services in a more inclusive, efficient, and transparent manner for the public (Djarmiko et al., 2025). However, its implementation also faces challenges in the form of the digital divide, low technological literacy, and cultural resistance, which require adaptive public policies.

An evaluation of digital transformation in religious services is crucial to ensure the effectiveness of policy implementation, which has been designed to be optimal and sustainable (Alojail et al., 2023). Policy effectiveness can be measured by the ability of services to achieve their objectives in a targeted manner and to have a tangible impact on society (Nilashi et al., 2023). Additionally, the aspect of inclusivity is vital to guarantee fair access for all segments of society, including marginalized and vulnerable groups (Pérez-Escobar et al., 2023). Service responsiveness is also a key indicator in assessing a system's ability to respond to community needs quickly, appropriately, and accurately in line with social dynamics (Maksimovska et al., 2019). These three dimensions are relevant within the Society 5.0 framework.

The regression analysis indicates that the adoption of digital governance is positively and significantly associated with public service efficiency ($p < 0.05$), as evidenced in countries such as Sweden and Germany through reductions in service time of up to 40–60% and operational costs of 20–35%, thus, in general, digitalization has been proven to enhance efficiency, transparency, and the quality of public services (Sadat et al., 2025). The use of digital technology has been shown to have a positive and significant effect on improving the speed ($r = 0.630$; $R^2 = 0.396$; $b = 0.225$; $p < 0.05$) and quality of administrative services ($r = 0.470$; $R^2 = 0.220$; $b = 0.168$; $p < 0.05$) at moderate–high levels of utilization (mean = 3.021), thereby not only accelerating processes and improving service quality in educational institutions but also potentially expanding the reach and effectiveness of public services, including in the context of religious services (Adisa et al., 2024). However, some studies have also identified limitations regarding equitable access and the public's readiness to adopt digital technology optimally (David et al., 2023). In addition, studies on service responsiveness indicate that there are still challenges in adapting services to the dynamic needs of the public (Djafar et al., 2025). Other findings underscore the importance of integrating policy and technology to improve the quality of digital public services (Hakim et al., 2024).

Nevertheless, previous research has tended to focus on specific aspects and has not yet comprehensively integrated the dimensions of effectiveness, inclusivity, and responsiveness into a single, holistic, and systematic analytical framework. Furthermore, the use of the Systematic Literature Review approach in examining the digital transformation of religious services remains relatively limited in the academic literature. This situation highlights the need for a more in-depth and comprehensive study within the context of Society 5.0. Therefore, this study aims to systematically analyze the digital transformation of public religious services by assessing policy effectiveness, the inclusivity of access, and the responsiveness of services to the needs of the broader public.

B. METHOD

This study employs a qualitative approach using the Systematic Literature Review (SLR) method, beginning with problem formulation specifically, defining the focus of the study on the analysis of digital transformation in public religious services, with an emphasis on policy effectiveness, inclusive access, and service responsiveness in the Society 5.0 era. Next, inclusion and exclusion criteria were established, where the inclusion criteria encompassed scientific articles relevant to digital transformation in public religious services whether empirical or conceptual published between 2016 and 2026, while the exclusion criteria included studies that were irrelevant, non-scientific, overly technical without policy relevance, duplicated, or lacking complete data. The next stage was the literature search and data selection, conducted through the Google Scholar, DOAJ, and Scopus databases using the keywords Digital Transformation, Public Religious Services, Policy Effectiveness, and Society 5.0, followed by systematic selection based on relevance and source quality.

The research process continued with the data extraction and analysis phase, which involved identifying and categorizing key data from the selected articles in accordance with the research focus. Next, during the data interpretation and synthesis stage, the data was analyzed thematically to identify patterns, relationships, and trends related to the implementation of digital transformation in public religious services. The final stage, which involved drawing conclusions, was conducted by comprehensively formulating findings regarding the effectiveness of policies, the level of inclusivity, and the responsiveness of digital-based services in addressing the needs of the broader public in the Society 5.0 era.

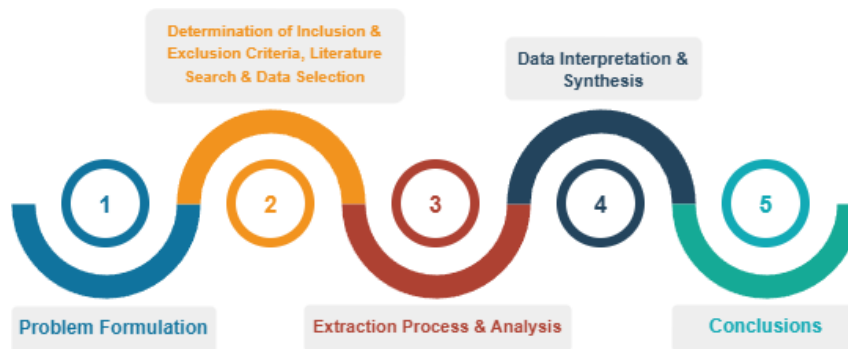


Figure 1. Stages of the Research Process

C. RESULTS & DISCUSSION

The trend in the number of scientific publications related to digital transformation in religious public services during the 2016–2025 period shows a significant upward trajectory based on data from the Dimensions AI database. This visualization reflects the intensity of academic attention toward issues of policy effectiveness, inclusivity, and service responsiveness within the context of Society 5.0, while also providing an empirical basis for understanding the direction of research development and the urgency of the topics examined in contemporary scientific discourse, as shown in Figure 2.

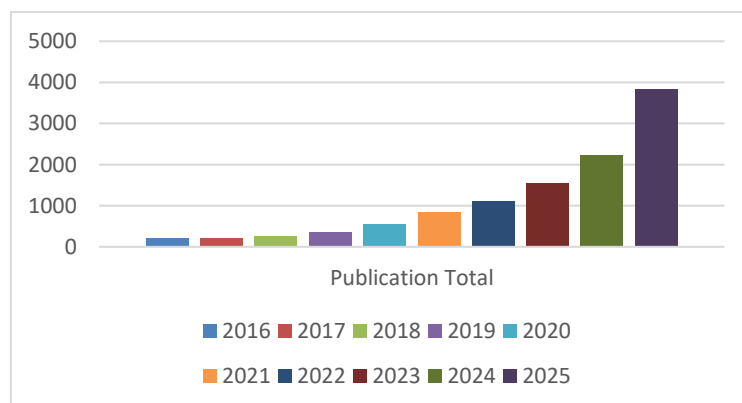


Figure2. The Evolution of Research Publications on Digital Transformation in Public Religious Services (2016–2025)

Figure 2 shows publication data for the 2016–2025 period, revealing a consistent and significant upward trend in the number of articles. In the initial phase (2016–2018), the number of publications remained relatively low and stable, ranging from 204 to 256 articles, indicating that research on digital transformation in religious public services was still in its early stages of development. Entering the 2019–2021 period, there was a more pronounced increase from 361 to 829 publications, signaling a growing academic focus on issues of digitalization and the governance of public services. Furthermore, during the 2022–2025 period, this trend experienced a very sharp surge from 1,103 to 3,817 publications, indicating that topics such as digital transformation, policy effectiveness, inclusivity, and responsiveness within the Society 5.0 framework have evolved into increasingly important, relevant, and strategic in the global discourse, which is further explored through the mapping of keyword interconnections using VOSviewer-based bibliometric analysis, as shown in Figure 3.

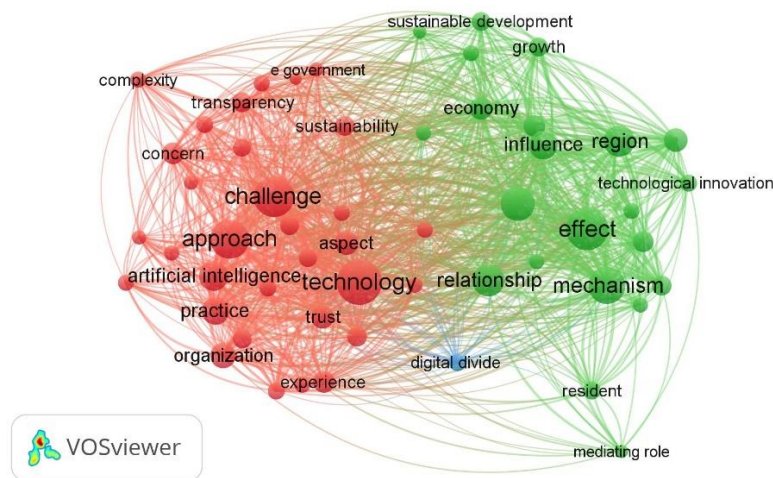


Figure 3. Visualization Network of Keywords

Figure 3 shows a visual analysis of keyword co-occurrence, revealing three main clusters that are interconnected yet have distinct conceptual focuses. The red cluster represents the dimensions of technology and governance, dominated by keywords such as technology, artificial intelligence, e-government, transparency, trust, organization, practice, experience, as well as challenge and approach. This cluster can be defined as a field of study that focuses on the application of digital technology in public organizations and its implications for transparency, trust, and administrative practices. Interpretatively, the dominance of the terms “challenge” and “approach” indicates that digital transformation is understood not only as technical innovation but also as a complex process requiring adaptive strategies to address organizational resistance, ethical issues, and the need for public trust.

The green cluster represents the dimensions of impact and development, with key terms such as effect, mechanism, relationship, economy, growth, region, influence, technological innovation, and sustainable development. This cluster can be interpreted as a research area focused on how digital transformation and technological innovation generate systemic impacts on economic and social development. This interpretation suggests that research within this cluster tends to be evaluative and explanatory in nature, examining cause-and-effect relationships (mechanisms and relationships) as well as the contribution of technology to economic growth and sustainable development across various regions.

Meanwhile, the smaller blue cluster centers on the keyword “digital divide,” which represents the dimensions of the digital divide. This cluster is defined as studies that highlight disparities in access, literacy, and technology utilization within society. Interpretatively, the existence of this cluster serves as a critical link between the technology (red) and development impact (green) clusters, affirming that the success of digital transformation is largely determined by the system’s ability to bridge access gaps and ensure service inclusivity. To clarify this thematic mapping, the following

presents the classification of research fields, authors, and key variables identified in the literature, as shown in Table 1.

Table 1. Synthesis of Research Findings on Digital Transformation in Religious Services

No	Field / Focus Area	Authors	Research Insights / Variables
1	Technological Transformation in Religious Services (AI & E-Government)	Alquayt et al. (2025); Oyebanji et al. (2025); Wirata et al. (2025)	Service automation, personalization of religious services, digital system integration, service efficiency, accessibility, transparency
2	Success Factors of Digital Transformation Implementation	Birdayanthi et al. (2025); Bodó & Janssen (2022); Sharma & Kohli (2024)	System transparency, public trust, social legitimacy, human resource capacity, organizational adaptability, digital governance
3	Socio-Institutional and Normative Impacts of Technological Transformation	Conceptual synthesis (multiple studies)	Shift from procedural to data-driven governance, religious value legitimacy, dual role of technology (enabler vs disruptor), AI ethics, risk of dehumanization
4	Technological Innovation and Public Service Effectiveness	Ransbotham et al. (2016); Jacobsen & Jakobsen (2018); Kamble & Gunasekaran (2020)	Service efficiency, bureaucratic simplification, user satisfaction, data-driven evaluation, evidence-based governance
5	Digital Transformation and Sustainable Economic Development	Deichmann et al. (2016); Mahmood & Miah (2022); Alojail & Khan (2023)	Economic productivity, cost efficiency, economic growth, social inclusion, sustainable development
6	Digital Governance and Performance of Religious Services	Conceptual synthesis (cross-study analysis)	Service efficiency, transparency, public trust, contribution to human development, technology-performance-development nexus
7	Digital Divide in Religious Services	Campbell (2023); Williams et al. (2016); Tsetsi & Rains (2017)	Access inequality, digital literacy, socio-demographic factors, digital exclusion, service disparity
8	Strategies for Inclusive and Responsive Digital Services	Martzoukou & Elliott (2016); Khan (2024); Dopp et al. (2019)	Digital literacy improvement, infrastructure equity, user-centered design, service inclusivity, community empowerment
9	Impact of Digital Divide on Inclusivity	Conceptual synthesis (multiple studies)	Access gap, capability gap, design gap, service marginalization, social justice, public participation
10	Challenges and Limitations of Digital Transformation	Evaluative synthesis (cross-study analysis)	Trust deficit, algorithmic bias, human resource gaps, infrastructure dependency, spiritual value reduction, social exclusion

Table 1 presents the results of a literature synthesis that groups various studies into several interrelated fields or key areas of focus within the context of the digital transformation of religious services. This grouping highlights the conceptual interconnections between the dimensions of technology and governance, the impacts on performance and development, as well as issues of the digital divide and inclusivity. Each area reflects the key variables predominantly discussed in the literature, such as service efficiency, transparency, public trust, economic productivity, as well as digital literacy and social justice. Furthermore, this table also confirms that some findings are empirical, based on previous studies, while others are the result of conceptual synthesis integrating various research perspectives. Thus, this table serves not only as a literature mapping but also as an analytical foundation for comprehensively understanding the relationships among variables in the transformation of religious services. Based on this mapping, the subsequent discussion focuses on three main aspects: technological and governance transformation, impacts on performance and development, and the digital divide and service inclusivity.

1. Technological Transformation and Challenges in the Governance of Religious Services

The role of artificial intelligence (AI) and e-government in religious services is becoming increasingly strategic in promoting efficiency, accuracy, and accessibility in public services grounded in religious values. The implementation of AI enables the automation of administrative processes, such as managing congregant data, verifying documents, and providing smart system-based services capable of responding to user needs quickly and accurately (Alquayt et al., 2025). Furthermore, the use of AI also opens opportunities for more adaptive personalization of religious services, such as providing worship information, digital religious consultations, and service recommendations based on individual preferences (Oyebanji et al., 2025). On the other hand, e-government serves as an integrative platform that connects the government with the public digitally and in real-time, thereby accelerating service processes while enhancing the transparency of public information (Wirata et al., 2025).

On the other hand, the success of technology implementation in religious services is largely determined by the level of transparency, public trust, and an organization's ability to adapt to dynamic digital changes. Transparency in the management of digital services is a key factor in building the legitimacy of public and religious institutions, particularly in ensuring that every service process is openly accessible and understandable to the public (Birdayanthi et al., 2025). Public trust also serves as the primary foundation for the acceptance of new technologies, particularly within the context of religious services, which are deeply intertwined with societal normative values and beliefs (Bodó et al., 2022). Therefore, organizations need to adapt by enhancing human resource capacity, strengthening governance, and fostering continuous innovation to effectively respond to the demands of digital transformation (Sharma et al., 2024).

Technological transformation not only impacts the technical aspects of services but also touches upon the social-institutional and normative dimensions of religious service governance, where the use of AI and e-government is driving a shift from procedural-based governance toward data- and algorithm-based governance. In the context of religious services, this change presents complexities because these services are not merely administrative in nature but are imbued with spiritual values, ethics, and faith; thus, the use of technology particularly AI requires strong social legitimacy to avoid being perceived as reducing sacred values to a technocratic process. This transformation highlights the dual role of technology: as an enabler that enhances operational efficiency through automation, expands service accessibility beyond spatial and temporal boundaries, and strengthens transparency via traceable digital systems; and simultaneously as a disruptive force that challenges traditional structures of trust, religious authority, and mechanisms of legitimacy. The implementation of this transformation also faces various challenges, such as a growing lack of trust in algorithm-based decisions, disparities in human resource capacity among religious institutions, the risk of dehumanization in services due to a reduction in empathetic and spiritual interactions, as well as ethical and transparency issues regarding algorithms that have the potential to cause bias and injustice. Technological transformation continues to offer advantages in improving service quality, but at the same time demands adaptive, inclusive management grounded in religious values to address structural, cultural, and ethical challenges in a balanced manner.

2. The Impact of Digital Transformation on Development and Service Performance

The mechanisms and relationship between technological innovation and the effectiveness of public services demonstrate a close connection in improving the quality, efficiency, and accuracy of services provided to the public. Technological innovations, such as the digitization of service systems, the use of online platforms, and data integration, enable service processes to become faster, more transparent, and more measurable (Ransbotham et al., 2016). Furthermore, the causal relationship between technology adoption and service effectiveness can be observed in the system's ability to reduce bureaucratic red tape and enhance user satisfaction (Jacobsen et al., 2018). This mechanism is further reinforced by the use of technology as a performance evaluation tool, enabling the government to implement data-driven continuous improvements (Kamble et al., 2020). Thus, technological innovation serves not only as a supporting tool but also as the primary driver in transforming public service quality to be more responsive and adaptive.

The contribution of digital transformation to economic growth and sustainable development is becoming increasingly evident across various sectors, including public and religious services. The use of digital technology can enhance economic efficiency by reducing operational costs, increasing productivity, and expanding access to services for the general public (Deichmann et al., 2016). Furthermore, technological innovation also plays a role in driving regional economic growth by creating new business opportunities and strengthening an inclusive digital ecosystem (Mahmood et al., 2022). From a sustainable development perspective, digital transformation supports the achievement of a balance between economic growth, social inclusion, and environmental sustainability through more efficient resource utilization (Alojail et al., 2023). Therefore, the integration of technology into public services not only improves service performance but also contributes significantly to long-term development.

Digital transformation is not merely a technical change but a structural mechanism that links service performance to the development agenda; thus, in the context of religious services, digitization not only improves the quality of administrative services but also expands the role of religious services as an instrument of social development. The patterns of relationships that emerge reveal a causal flow from technology to service efficiency, increased public satisfaction, and strengthened public trust, as well as from technology to productivity, economic growth, and sustainable development. The implications of this dynamic are evident in the increased public access to spiritual services, religious education, and religious information in a broader and more inclusive manner, which simultaneously affirms the position of religious services as an integral part of human development, not merely ritualistic services. Digital transformation also brings various benefits, including increased speed, accuracy, and efficiency of services; tangible contributions to economic growth through cost efficiency and productivity; support for sustainable development through the integration of economic, social, and environmental aspects; and the strengthening of evidence-based governance, which improves the quality of policies and services. On the other hand, there are a number of weaknesses and challenges that cannot be ignored, such as disparities in digital access among different social groups, high dependence on the readiness of technological infrastructure, the potential reduction of spiritual values due to a shift from relational interactions to transactional patterns, and gaps in institutional capacity to manage digital transformation optimally. These conditions indicate that the impact of digital transformation is asymmetrical because, on the one hand, it can generate significant benefits, but on the other hand, it has the potential to widen disparities if not managed in an inclusive and socially just manner.

3. The Digital Divide and Issues of Inclusivity in Religious Services

The digital divide in access to and literacy regarding religious services reflects disparities in the public's ability to make optimal use of digital technology. This gap is not only related to infrastructure limitations, such as internet access and digital devices, but also involves low digital literacy, which affects individuals' ability to understand and use technology-based services (Campbell, 2023). In the context of religious services, this situation can result in certain segments of the population particularly those in rural areas or vulnerable groups failing to gain equitable access to the digital services provided (Williams et al., 2016). Furthermore, differences in educational levels, age, and socioeconomic conditions further widen the gap in the utilization of digital services (Tsetsi et al., 2017). Therefore, the digital divide is a critical challenge that must be addressed to ensure that digital transformation in religious services does not inadvertently reinforce social exclusion.

Strategies for delivering responsive and inclusive services in the era of digital transformation require a comprehensive, community-centered approach. One key step is to improve digital literacy through ongoing education and training so that the public can access and utilize services independently (Martzoukou et al., 2016). Additionally, the government and religious institutions must ensure equitable access to digital infrastructure, including in remote areas, to reduce the digital divide (Khan, 2024). A user-centered design approach is also a key strategy in creating services that are adaptable to the diverse needs of various community groups (Dopp et al., 2019). Thus, the integration of inclusive policies, community capacity building, and service innovation is key to realizing a responsive, equitable, and sustainable religious service system.

These findings indicate that the digital divide is not merely technological in nature but also reflects structural inequalities in access to religious services; thus, digital transformation which should enhance inclusivity has the potential to create new forms of exclusion if not balanced by

inclusive policies. The conceptual relationship between the digital divide and inclusivity can be understood through the interlinked patterns where limited access leads to low participation and reduced inclusivity, and low digital literacy results in suboptimal technology utilization and exacerbates service disparities. In the context of religious services, these implications are particularly significant because such services are not merely administrative but also relate to the fulfillment of spiritual rights and the basic needs of the community; thus, the inability of certain groups to access digital services has the potential to lead to marginalization and undermine the principle of social justice in public services grounded in religious values. The research findings also have several strengths, including a multidimensional approach that encompasses aspects of access, literacy, and social factors; high contextual relevance to the realities of developing societies; and the presence of practical strategic solutions such as improving digital literacy and developing user-centered services. Nevertheless, there are several weaknesses and challenges that need to be addressed, such as a tendency to focus on technical aspects that do not fully accommodate cultural and religious dimensions, limitations in policy implementation due to resource and regulatory constraints, potential bias in service design if marginalized groups are not actively involved, and a lack of integration of religious values into strategies that remain technologically neutral. These conditions underscore that efforts to bridge the digital divide require a holistic approach that integrates technological, social, cultural, and normative aspects so that the inclusivity of religious services can be realized in a fair and sustainable manner.



Figure 4. Conceptual Evolution of Research Variables in the Digital Transformation of Religious Services

Figure 4 illustrates the conceptual evolution of research variables in the digital transformation of religious services chronologically from 2016 to 2025, showing a gradual shift in the focus of the study. During the 2016–2018 period, research was still oriented toward the basic aspects of digitization, such as technological innovation, service efficiency, data integration, and bureaucratic streamlining. Entering the 2019–2021 period, the focus shifted toward improving service quality through user-centered approaches, including service accessibility, digital literacy, and inclusivity. During the 2022–2023 period, studies began emphasizing dimensions of digital governance, such as transparency, public trust, social legitimacy, and contributions to economic and sustainable development. Meanwhile, during the 2024–2025 period, research reached an advanced phase characterized by the integration of artificial intelligence and e-government, as well as the emergence of complex issues such as algorithmic ethics, technological bias, the digital divide (access, capability,

and design gaps), and the integration of religious values into technology-based governance. Overall, this evolution indicates that digital transformation in religious services is shifting from a technical approach toward a more holistic one, encompassing social, ethical, and normative aspects.

D. CONCLUSION

The conclusion drawn from the overall analysis indicates that technological transformation in religious services exhibits a simultaneous ambivalence: it serves as a driver of increased efficiency, transparency, and accuracy, and contributes to socioeconomic development, while also acting as a source of new complexities in governance concerning the legitimacy of values, public trust, institutional capacity, and the risk of digital exclusion. The integration of technologies such as AI and e-government has proven to shift the paradigm toward a more responsive and adaptive data-driven governance, while expanding the role of religious services in supporting sustainable development through increased productivity and social inclusion. However, the existence of a digital divide encompassing aspects of access, literacy, and service design indicates that the benefits of digital transformation have not been distributed evenly; thus, the success of its implementation depends heavily on institutions' ability to harmonize technological dimensions with social, cultural, and normative aspects in a balanced manner.

The identified research gaps include the limited number of integrative studies on the relationship between technology and theological values in the implementation of AI, the scarcity of empirical studies on the long-term impact of digitalization on religious experiences, the lack of development of specific and context-specific governance models for religious services, and the scarcity of research on effective strategies for addressing the digital divide among vulnerable groups. Based on this, the urgent future research agenda includes the development of a value-based digital governance model in religious services, studies on the ethics and legitimacy of AI use in religious decision-making, longitudinal studies on changes in community behavior and spiritual experiences, and the design of community-based interventions to improve digital literacy and service inclusivity. This research direction underscores the importance of a holistic approach capable of integrating technological innovation with principles of social justice and sustainability, so that digital transformation truly functions as an instrument of empowerment in religious services.

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