



Religious-Cultural Mediation in Technology Adoption: A Qualitative Study of Islamic Communities in Indonesia

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Abstract

This research aims to analyze the influence of Islamic social and cultural values on technology adoption within Muslim communities, focusing on the challenges and opportunities arising from the misalignment between technological advancements and local cultural values. Technology adoption in Muslim societies is often influenced not only by infrastructure readiness but also by societal perceptions of technology that may conflict with long-standing religious doctrines and cultural traditions. This study identifies three main factors affecting technology acceptance: infrastructure readiness, social disparities, and the cultural characteristics of Islam. The research demonstrates that successful technology adoption requires social engineering that enables integration with the existing moral and social values in Muslim communities. Using a qualitative approach, the study explores how Muslims adapt technology without compromising their religious and cultural principles. Findings indicate that effective technology adoption necessitates policies accommodating local social and cultural values and the involvement of religious leaders in introducing appropriate technology. This research significantly contributes to enriching the study of technology adoption by considering cultural and religious dimensions and opens opportunities for further research in this field. The study's limitation lies in its geographically limited scope, suggesting the need for broader, more in-depth research involving Muslim communities in various regions.

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Introduction

The development of the technological revolution in the digital era has had a significant impact on the social and cultural life of society. However, technology often does not align with local values (Evers & Day, 1997; Sinai et al., 2019). In many cases, the methods employed by technology contradict the deeply rooted cultural values within communities (Yang, 2023). Technology is frequently seen as an imported external product that may not be compatible with the social and cultural conditions of the local society (Ju et al., 2013; Li, 2023; Meričková &



Muthová, 2021). There is a common perception that technology contains values that conflict with religious teachings and long-established cultural traditions (Kozak & Fel, 2024; Umbrello, 2023). When technology enters society, it is often not accompanied by sufficient development of digital literacy to operate it wisely and in accordance with local values. This leads to the inability of some members of society to adapt to changes brought about by technology. Technology adoption is often influenced by the community's readiness to accept and integrate it into their lives. Ideally, in the context of human empowerment, technology should serve as a tool to improve welfare and progress (B. Ngenget, 2022; Prayitno et al., 2022). However, without strengthening social and cultural values, technology can cause mismatches within society. In many communities, especially those based on religious and local cultural values, the incongruence between these values and technological development can hinder the process of technology adoption and implementation. Therefore, it is important to understand the extent to which technology can be developed without compromising the noble values that exist in society, particularly within Islamic communities.

Based on existing studies, research on technology incompatibility in society often fails to adequately address crucial issues arising from the differing social and cultural characteristics of communities compared to technology. Most existing studies tend to focus on analyzing the implications of technology use in daily life without delving deeply into the role of culture and social character in technology adoption. Three main tendencies can be found in the current literature. First, many studies emphasize how technology affects human daily life and the future of humanity, as highlighted by Lum (2021) and Baek & Lee (2021). Lum (2021) stresses that technology not only impacts daily human life but also plays a significant role in shaping humanity's future. Second, some other studies analyze negative impacts of technology on society, such as those by Muhammad et al. (2023) and Syuntyurenko (2022), who highlight adverse effects of technology on social health and the environment. Third, there are studies that map out issues of digital literacy in society, showing how a lack of understanding of technology can slow the adoption and use of technology in daily life (Barthold, 2020; Holopainen et al., 2023). Although these three tendencies provide important insights, no study has thoroughly examined how social and cultural characteristics—especially in the context of religion and local cultural traditions—affect technology adoption. Existing studies often treat technology as an entity isolated from cultural and religious factors that shape societal character, despite these factors being critical for successful technology adoption. This study aims to address shortcomings in previous research by deeply analyzing how social and cultural character, particularly in the context of Islam, influences communities' ability to adopt technology effectively. Technology

adoption depends not only on infrastructure availability and the technology itself but also on society's perception of technology and their readiness to adapt social and cultural values to technological advances. Communities living with strong religious and cultural values, especially within Islamic traditions, often hold different views toward technology and its use. Therefore, it is important to examine how Islamic culture and religion influence the community's ability to accept new technology. For this purpose, three main questions need to be addressed: (1) How ready is the infrastructure to support technology adoption within Islamic religious and cultural communities?; (2) How does social inequality affect the capacity for technology adoption?; and (3) How do Islamic cultural characteristics influence acceptance and application of technology in society? Answers to these questions will provide a deeper understanding of how cultural and religious factors affect technology adoption in the context of community empowerment, and provide a stronger basis for policy formulation that supports wise and value-aligned technology adoption.

This study argues that incompatibility between society and technology is not merely caused by technical factors such as infrastructure or device availability but more fundamentally by differences in the social and cultural character of the community itself. Islamic communities, in particular, tend to have a more communal orientation that prioritizes togetherness and social solidarity. This often contrasts with technology's orientation, which tends to emphasize efficiency and individualism. Therefore, to ensure successful technology adoption, communities need adequate infrastructure and an egalitarian social structure that guarantees equal access for all social layers. More than that, technology should be seen not only as a tool for efficiency but as a means that can be adapted to the moral and religious values upheld by the community. In this context, technology needs to be interpreted within the framework of Islamic values that support community welfare without sacrificing social, moral, and cultural aspects. Thus, successful technology adoption in Islamic communities requires social engineering that enables the integration of technology with existing social and religious values. This success depends not only on the availability of technology itself but also on the community's ability to design and adapt technology in ways that respect and reinforce existing traditions and cultural values.

Research Methodology

This study employs a literature review approach to analyze the influence of Islamic social and cultural values on technology adoption within Muslim communities. This method was chosen as it allows a comprehensive examination of relevant literature from diverse sources, including scholarly journals, books,

and policy documents. The study emphasizes a multidisciplinary perspective, integrating fields such as technology studies, sociology, cultural anthropology, and Islamic religious views to provide a holistic understanding of the technology adoption phenomenon grounded in Islamic values. The literature search was conducted using reputable academic databases such as Scopus and Google Scholar with key terms including “technology adoption,” “Islamic social and cultural values,” and “Muslim communities.” A thematic analysis was undertaken to identify the primary factors influencing community readiness for technology adoption, including infrastructure readiness, social inequalities, and distinctly Islamic cultural characteristics and values. The findings offer a comprehensive overview of the challenges and opportunities in aligning technology integration with Islamic social and cultural norms. This study aims to fill research gaps and provide policy recommendations that support technology adoption compatible with the traditions and norms of Muslim societies. Consequently, the literature review serves as a critical foundation for understanding the complexities of technology adoption in communities with strong religious values.

The Role of Religious and Cultural Values in Technology Adoption

The influence of Islamic religious values and local culture on the acceptance and adoption of technology is a highly relevant topic in this era of globalization. Alongside rapid technological advancements, the process of technology adoption in various communities is often influenced by social, cultural, and religious factors. In this context, we observe how Islamic values and local cultures play a role in shaping community responses to technological innovations, frequently leading to complex challenges and opportunities. One prominent aspect of the relationship between Islam, local culture, and technology is the preservation of traditional values. In many communities rooted in Islamic teachings, preserving cultural identity is critically important. Communities that integrate self-regulatory practices based on Islamic principles, such as the Rencong Telang Muslim Community, for example, strive to maintain their traditional values despite facing the increasing influence of globalization. This highlights the essential need to balance modernity with traditional values in the technology adoption process. While globalization brings many benefits, it is often perceived as a threat to the sustainability of local culture and religious identity (Agustina & Zainuddin, 2024). Therefore, maintaining harmony between technological progress and local cultural values is key to technology adoption in communities that deeply uphold Islamic principles.

Moreover, Islamic education offers important insights into how religious values impact technology adoption in the educational context. One approach

used to understand technology acceptance in Islamic education is by modifying the Technology Acceptance Model (TAM). Research titled “Digital Learning Acceptance in Islamic Education: Validity and Reliability Testing of the Modified Technology Acceptance Model” (2023) indicates that unique Islamic principles and local culture significantly influence technology acceptance and usage in Islamic education. The acceptance or rejection of digital learning tools depends on how well these technologies align with the religious principles adhered to by the community. Thus, this research suggests that technology adoption in Islamic education is affected not only by technical factors but also by the compatibility of technology with existing religious and cultural values. It is therefore essential to consider religious and cultural contexts in developing more effective and contextualized technology acceptance models for Islamic educational settings.

Social influence also plays a critical role in technology acceptance. In Muslim communities, social influence is often heavily shaped by religious and cultural values. For instance, Islamic mobile banking has become a successful example of technology adoption in many Muslim communities. A study by Shafiq et al. (2024) shows that social influence, strongly informed by culture and religious beliefs, significantly impacts decision-making regarding the adoption of such technologies. Here, technology is viewed not only from a technical perspective but also through social and religious lenses. Decisions regarding technology adoption, especially concerning financial and religious aspects, are profoundly influenced by social norms and religious beliefs within the community. Therefore, acceptance of technology within socially Islamic contexts requires deep understanding of how these communities perceive both technology and the values it embraces.

Additionally, the concept of “halal” in the context of technology is increasingly relevant in Muslim societies. Traditionally associated with food, drink, and other lawful practices according to Shariah law, the halal concept is now extended to technology. Fauzan & Kesuma (2022) explain that technological innovations must be scrutinized to ensure they do not conflict with Shariah principles. This means technology adoption within Muslim communities must address ethical and moral aspects grounded in Islamic teachings. If a technology is deemed incompatible with Islamic principles, it tends to be rejected or accepted with caution. Hence, technology developers must ensure their innovations not only meet technical standards but also align with the religious values upheld by Muslim communities. This demonstrates the critical connection between technological advancement and a profound understanding of religious teachings in facilitating technology adoption.

Within the framework of Society 5.0, which prioritizes human-centered technological solutions, the challenges facing Islamic civil society organizations

(CSOs) become increasingly relevant. CSOs based in Muslim-majority countries or Muslim communities abroad face significant challenges in leveraging technology for social good while ensuring that adopted technologies comply with Islamic ethical principles. Hadiati et al. (2024) recommend that Islamic civil society organizations develop strategies to build technological capabilities within an Islamic framework, enabling technology to be maximally used for social welfare without compromising religious values. These organizations must be capable of identifying technologies that are not only beneficial but also ethically acceptable to Muslim communities. Strategies also involve ensuring equitable and inclusive access to technology, allowing its benefits to be experienced across all social strata. Furthermore, local cultural practices play a crucial role in facilitating technology acceptance within the Islamic context. For example, in regions such as Maluku, the interaction between Islamic traditions and local customs shapes community dynamics and technology landscapes. Lopulalan et al. (2024) reveal that technology acceptance in many Muslim communities is often facilitated through the integration of local traditions with Islamic principles. This integration not only eases technology adoption but also helps communities accept it more readily, as they perceive the technology to be in harmony with their core values. Thus, it is essential to understand that technology adoption in Muslim communities depends not only on technical or religious factors but also on how well technology can be adapted to local practices and traditions.

The convergence of Islamic values, local traditions, and technology adoption illustrates a complex yet interconnected relationship. Community leaders and religious scholars play vital roles in introducing and facilitating technology adoption within Muslim societies. Rahman et al. (2023) emphasize that leaders and scholars must act as mediators, aiding communities to understand and embrace technologies aligned with their religious and cultural values. This dynamic indicates that effective technology integration in Muslim communities requires frameworks that consider not only technological advancement but also the preservation of Islamic and cultural heritage.

Social Inequality and Its Impact on Technology Access

Social inequalities present within communities, especially in the realms of economy, education, and resource accessibility, profoundly affect the adoption and utilization of technology. These disparities create a digital divide that influences how different socioeconomic groups engage with technology and the benefits they derive from it. Over time, this digital divide perpetuates existing social inequalities, obstructing efforts toward equity and inclusivity in technology use. Access to technology, particularly the internet and digital

devices, has become crucial for educational outcomes. Underprivileged communities often face significant barriers in accessing the internet and educational technologies, leading to reduced educational opportunities for individuals within these groups. Deursen and van Dijk (2013) observed that while the internet has the potential to equalize information access, it frequently reinforces existing social inequalities. They found that individuals with lower social status fall further behind their higher-status peers in both access and utilization of online information.

This gap became more apparent during the COVID-19 pandemic, as the shift to remote learning exacerbated existing disparities. School closures and the inability of many students from low-income families to access adequate devices and internet connections deepened educational inequities. Research by Tan (2024) highlights that students from economically disadvantaged backgrounds, often lacking sufficient access to technology, struggled significantly with online learning, which impeded their academic progress. This inequality also impacts the long-term economic stability of these communities, intensifying cycles of poverty and disadvantage. However, mere access to technology does not guarantee equitable use. Weiß et al. (2018) demonstrated that despite some groups having access, unstable access patterns can result in inconsistent educational and health outcomes. For example, while urban schools may be well-equipped with advanced technology, children from low-income families often lack similar access at home, limiting their engagement with educational resources and exacerbating achievement gaps between wealthy and poor students (Pierce & Cleary, 2024). Income inequality further worsens this cycle, as studies indicate lower educational attainment is linked to lower income, perpetuating social and economic disparities (Edeni et al., 2024). Valletta (2016) notes that lower educational achievement correlates closely with wage gaps, which widen alongside technological advances. Thus, social inequality in technology access also contributes to economic inequality, deepening societal divides.

Beyond education, social inequality is also evident in health and wellbeing, particularly regarding access to health technologies. Health technologies like continuous glucose monitors and telemedicine services increasingly enhance healthcare delivery, yet disparities in access further deepen socioeconomic divides. Fantasia et al. (2021) found that marginalized individuals frequently face systemic barriers hindering effective use of health technologies, including economic limitations, language barriers, and low digital literacy. Similarly, Ailawadhi et al. (2023) report that minority groups and low-income populations often lack necessary devices or the ability to use these technologies effectively, resulting in poorer health outcomes and worsening quality of life disparities. Education technology also reflects and reinforces existing social

power dynamics. Selwyn (2010) argues that educational technology must be critically examined to understand how it reproduces social relationships, often perpetuating rather than alleviating inequalities. Available educational technologies frequently favor economically and socially advantaged students over less privileged ones. Nath and Amin (2023) stress the need to evaluate technological progress through an equity lens to ensure educational technologies truly empower all social groups equally.

Addressing these challenges requires holistic and multifaceted strategies. Effective interventions should not only improve technology access but also enhance digital literacy and foster environments supporting equitable and fair technology use. Policies must be designed to provide access and ensure effective usage without exacerbating existing inequalities. Successful policies closing the digital divide can significantly improve educational and health outcomes, ultimately reducing social inequality. Collaboration among governments, private sectors, and civil society is crucial to develop inclusive policies ensuring all individuals, regardless of socioeconomic background, have equal opportunities to benefit from technology for their welfare and empowerment. In summary, social inequalities in technology access widen societal gaps across education, health, and economic domains. Hence, policies and interventions must address not just access but also how technology can be used to reduce rather than deepen social inequalities. Equity-focused technology policies will help create a more inclusive future where everyone has the same opportunity to enjoy the benefits of technology for personal and communal wellbeing.

Infrastructure Readiness to Support Technology Adoption

Infrastructure readiness in Islamic communities presents complex challenges and opportunities, particularly in the context of contemporary technological advancements and the paradigm shift toward Society 5.0. Society 5.0, a concept of a deeply integrated technology-based society, combines information and communication technologies with various aspects of human life to create a more inclusive and prosperous society. However, the integration of advanced technology in Islamic societies is often hindered by several limitations, including inadequate technological infrastructure, outdated educational methodologies, and challenges relating to the readiness of human resources lacking digital management skills. According to Zainuddin et al. (2024), many Islamic educational institutions, such as madrasahs, struggle to adopt modern educational frameworks and technologies due to their reliance on traditional teaching methods and the scarcity of educators trained in digital innovation. This challenge becomes more apparent when considering that digital transformation requires not only the provision of technological devices but also the capability to

integrate them effectively into educational processes. The reluctance to abandon traditional educational approaches is a significant barrier to advancing toward Society 5.0 (Zainuddin et al., 2024).

Furthermore, Hadiati et al. (2024) highlight ethical and infrastructural challenges faced by the Indonesian Islamic civil society in accessing and utilizing modern technology. Despite technology's potential to improve various life aspects, including education and healthcare, many Islamic communities remain unable to fully harness this potential due to existing infrastructural limitations and unpreparedness for comprehensive digital transformation. They propose that building technological capacity and fostering interdisciplinary collaboration are crucial for overcoming these challenges. Despite these hurdles, the era of Society 5.0 offers vast opportunities for Islamic communities to leverage technology to enhance their quality of life. A significant opportunity lies in optimizing cash waqf as a financial model to lead sustainable infrastructure development within Islamic communities. Qadri et al. (2024) reveal that cash waqf, financial contributions without time restrictions, hold substantial potential to accelerate infrastructure development among Islamic societies. This financial model not only improves financial access but also supports broader community development in sustainable ways.

In this context, technology can aid in more efficient management of cash waqf by utilizing digital platforms to facilitate distribution and monitoring, thus expediting infrastructure development. Technology also enables greater transparency and accountability in managing waqf funds, which in turn increases public trust in the system (Qadri et al., 2024). Therefore, cash waqf has the potential to become a valuable instrument to enhance infrastructure readiness in Islamic communities, especially in the digital era. Moreover, integrating media and mobile technology in Islamic education holds great potential for improving educational outcomes, though challenges remain. Nadifa and Ambarwati (2024) point out that while mobile technology can expand access to education, the biggest challenge is the readiness of educators and institutions to adopt and utilize this technology. In many cases, although technology is available, many educational institutions are not yet prepared to effectively incorporate it into their curricula. This is largely due to educators' lack of competency in using technology optimally and institutions' lack of digital culture development among students and teachers.

It is important to note that despite increased access to technology, the digital divide remains a significant issue. In education, access to technology does not always guarantee optimal utilization, especially in Islamic communities often facing limitations in human resources, infrastructure, and technological capabilities. Addressing this requires greater investment in educational facilities

and skill training for both educators and students to master necessary digital skills (Zamroni et al., 2023). Additionally, Islamic finance plays a crucial role in facilitating infrastructure readiness within Islamic communities. Islamic finance emphasizes not only economic aspects but also principles of sustainability and social justice. One approach to achieving sustainable infrastructure development is through Public-Private Partnerships (PPP), where public and private sectors collaborate to fund essential infrastructure projects. Gündoğdu (2018) argues that by integrating Islamic finance principles such as social justice and sustainability into infrastructure projects, it is possible to ensure that such projects provide not only financial profit but also broad social benefits. This aligns with Islamic principles prioritizing the welfare of the community, especially the underprivileged.

Karimah and Hardi (2020) also emphasize the importance of government policies aligning infrastructure access with Islamic economic distribution principles. They argue that policies supporting equitable infrastructure access can reduce existing social and economic disparities, fostering more inclusive conditions and sustainable development in Islamic communities. Nevertheless, despite these substantial opportunities, many challenges remain. A primary challenge is limited access to technology and skill gaps as highlighted by Zamroni et al. (2023), who stress the importance of investing in educational facilities and skill training to close this gap. Without serious efforts to enhance digital skills among educators and students, technology adoption challenges will persist. Furthermore, the reluctance of Islamic educational institutions to adapt to technological changes is a significant barrier. Radjak et al. (2024) and Julhadi and Ritonga (2023) note that many Islamic educational institutions respond slowly to technological progress due to dependence on existing traditional systems. Therefore, systemic reforms in the educational framework of Islamic societies are necessary to create space for more effective technology integration. Although the technological and infrastructure readiness challenges in Islamic communities are complex, opportunities for advancement through innovative financial instruments, educational reforms, and community-focused technology adoption remain promising. Collective efforts to bridge infrastructure gaps, invest in human capital, and promote inclusive digital transformation are crucial for progressing toward a prosperous Society 5.0 within Islamic contexts.

The Role of Education and Digital Literacy in the Adoption Process

Education plays a crucial role in enhancing digital literacy within Muslim communities, particularly in the context of Islamic education. Islamic educational institutions, such as madrasahs and pesantrens, are instrumental in developing digital literacy and equipping students with the necessary skills to adapt to

modern technology. In an increasingly advanced digital era, the integration of digital literacy into Islamic education is not only essential but also presents a challenge that must be addressed to enable the younger generation to use technology effectively and responsibly. Islamic education has long been a foundation for shaping students' character and mindset, encompassing not only spiritual and moral aspects but also guiding them to understand their surrounding world, including technology. Therefore, the integration of digital literacy in Islamic education is imperative to equip students with the skills required to participate in the digital society. Digital literacy in Islamic education encompasses the ability to use technology wisely, understand its impact, and apply Islamic principles in its usage.

Anggaira et al. (2022) highlight that the development of interactive teaching materials tailored to the digital literacy level of millennial Muslims can enhance the overall quality of education. The use of technology as a tool to enrich learning experiences can improve students' comprehension and skills, provided it is accompanied by relevant teaching methods. Kaeophanuek et al. (2019) demonstrate that digital storytelling in teaching can integrate critical inquiry and research skills, as well as enhance students' competencies in using digital devices wisely. This method not only imparts knowledge but also assists students in actively evaluating and applying received information while developing critical thinking skills. Hence, Islamic education focuses not only on content delivery but also on fostering analytical skills necessary for accurate assessment of digital information. Despite the numerous opportunities technology offers, there are various challenges in implementing digital literacy in Islamic educational institutions. A major challenge is the limitation of resources, both in terms of technological devices and the readiness of educators to adopt technology-based teaching methods. Many pesantrens and madrasahs still rely heavily on traditional methods that have not fully incorporated technological elements, creating a gap between students' needs to master technology and the institutions' capability to provide access. Darajat et al. (2022) assert that Islamic educational institutions, including pesantrens such as Darunnajah in Jakarta, are beginning to recognize the importance of teaching digital skills to students and educators to ensure they not only have deep religious knowledge but also are prepared to face digital world challenges. Nevertheless, significant difficulties remain for many pesantrens and madrasahs in implementing technology in their education. One principal obstacle is the insufficient training of educators to integrate technology effectively into learning. Therefore, it is vital for Islamic educational institutions to strengthen teacher training to enable educators to develop relevant digital skills aligned with contemporary developments (Umar et al., 2023).

One practical application of digital literacy in Islamic education is in preventing cybercrime. In the current digital era, cybercrime is an increasingly tangible threat, and the Muslim community needs adequate knowledge to protect themselves from potential risks. Educational initiatives aimed at improving community information literacy, particularly in cybercrime prevention, significantly impact economic activities within Muslim communities. Nurhayati et al. (2021) explain that workshops educating communities on safe online transaction practices can minimize risks associated with cyber emergencies. Digital literacy is essential in enhancing the economic resilience of Muslim communities, as digitally literate individuals tend to avoid online fraud, protect their privacy, and mitigate the effects of cyberattacks. Furthermore, digital literacy facilitates access to financial services and information that might otherwise be unavailable. As digital financial services proliferate, digital literacy becomes key to optimizing their use safely and efficiently. Moreover, digital literacy plays a vital role in financial literacy, particularly within the context of Islamic financial technology (fintech). Aziz et al. (2023) indicate that digital literacy significantly influences the use of fintech, which is critical for managing personal finance within the Islamic economic framework. With fintech, Muslim individuals can more easily access banking and investment services compliant with Sharia principles, such as profit-sharing systems and interest-free financing. Success in managing personal and business finances depends on individuals' understanding of how to use fintech platforms effectively and responsibly. Thus, it is important for Islamic educational institutions to integrate digital literacy into financial education curricula, ensuring students comprehend both Islamic economic principles and how to leverage fintech for their welfare.

An important aspect of increasing digital literacy within Muslim communities is the development of infrastructure supporting technology access. Gündoğdu (2018) suggests that public-private partnership (PPP) projects could be a solution to improve digital infrastructure in societies, especially in Muslim-majority countries facing funding challenges for infrastructure development. Through such partnerships, the private sector can collaborate with governments to build infrastructure that enables broader technology access, thereby enhancing digital literacy within communities. Additionally, increasing access to digital resources, such as computers and high-speed internet, is crucial to ensure all community members, including those in remote areas, can easily engage with digital education. Overall, education plays a pivotal role in fostering digital literacy among Muslim communities. By integrating digital literacy into Islamic education curricula, Islamic educational institutions can equip students with essential skills to adapt to a rapidly evolving digital world. Although challenges remain in implementing digital literacy, especially regarding infrastructure

limitations and educator training, the opportunities and benefits, such as cybercrime prevention and improved financial literacy, highlight the importance of these efforts. Educational initiatives focused on enhancing digital literacy can empower the Muslim community to thrive in the digital age.

Conclusions

Based on research findings regarding the influence of Islamic social and cultural values on technology adoption within society, the most significant conclusion is that technology acceptance among Muslim communities does not solely depend on infrastructure readiness or the technology itself, but is strongly influenced by social, cultural, and religious factors. The success of technology adoption in Islamic communities largely depends on the ability to align technological advancement with existing cultural and religious values. Technology that conflicts with Islamic religious principles and local traditions tends to be rejected or accepted with skepticism. Therefore, technology acceptance requires social engineering that enables integration of technology with Islamic moral and social values. The scholarly contribution of this study lies in opening a new dimension in technology adoption research that incorporates cultural and religious factors, specifically Islam. Previously, many studies focused only on technical or infrastructural aspects, but this research adds a novel perspective by demonstrating the critical importance of understanding social and cultural characteristics for successful technology adoption. Thus, this study enriches our understanding of how technology adoption can be adapted to local and religious values to achieve broader and more successful acceptance.

However, this study also has limitations, particularly in terms of its limited geographical scope. There is a need to extend the study to other Muslim communities in diverse regions to gain a more comprehensive picture. Additionally, although the focus of this research is Muslim society, the findings may be applicable to other societies with different cultural and religious values facing similar challenges in technology adoption. Therefore, further research is required to explore in more depth the role of religious leaders in introducing technology to communities, as well as how government policies can support the integration of technology within religious and cultural contexts. Moreover, future studies could investigate the long-term social and economic impacts of technology adoption within Muslim societies, and the potential development of more inclusive technology adoption models aligned with the noble values of the community.

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References

- Abubakari, Musa., dkk(2023). Digital learning acceptance in Islamic education: Validity and reliability testing of the modified technology acceptance model. *Canadian Journal of Educational and Social Studies*, 3(6). <https://doi.org/10.53103/cjess.v3i6.185>
- Agustina, L. & Zainuddin, M. (2024). Analysis of self-regulation in the Rencong Telang Islamic Society: A perspective of social cognitive theory. *Empathy Jurnal Fakultas Psikologi*, 6(2), 184. <https://doi.org/10.12928/empathy.v6i2.27256>
- Ailawadhi, S., Ailawadhi, M., Dutta, N., Parrondo, R., Roy, V., Sher, T., ... & Chanan-Khan, A. (2023). The digital divide: Racial disparities in adoption and utilization of health information technology among patients with lymphoid cancers. *Cancer Medicine*, 12(18), 19013-19020. <https://doi.org/10.1002/cam4.6454>
- Anggaira, A., Suhono, S., Sari, Y., Aryanti, N., & Putra, A. (2022). Interactive English teaching materials based on digital literacy of millennial Muslims. *Al-Ishlah Jurnal Pendidikan*, 14(4), 5969-5978. <https://doi.org/10.35445/alishlah.v14i4.2156>
- Anita, E., & Hardi, E. (2020). Belt and Road Initiative (BRI) in Islamic economics distribution perspective. *Al-Amwal Jurnal Ekonomi Dan Perbankan Syariah*, 12(2), 124. <https://doi.org/10.24235/amwal.v12i2.6982>
- Aziz, A., Pamungkas, G., Alifa, N., Wijaya, W., & Layaman, L. (2023). The role of digital literacy and financial literacy on the use of Islamic fintech moderated

- by religiosity: The impact on personal financial management. *IJSAS*, 1(6), 759-776. <https://doi.org/10.59890/ijssas.v1i6.1019>
- Darajat, D., Rosyidin, I., & Fahrudin, D. (2022). Pesantren and madrasa-based digital literacy practices: The case of the Darunnajah Islamic boarding school, Jakarta. *Islamic Communication Journal*, 7(2), 257-272. <https://doi.org/10.21580/icj.2022.7.2.13619>
- Deursen, A., & Dijk, J. (2013). The digital divide shifts to differences in usage. *New Media & Society*, 16(3), 507-526. <https://doi.org/10.1177/1461444813487959>
- Edeni, C., Adeleye, O., & Adeniyi, I. (2024). The role of AI-enhanced tools in overcoming socioeconomic barriers in education: A conceptual analysis. *World Journal of Advanced Research and Reviews*, 21(3), 944-951. <https://doi.org/10.30574/wjarr.2024.21.3.0780>
- Fantasia, K., Wirunsawanya, K., Lee, C., & Rizo, I. (2021). Racial disparities in diabetes technology use and outcomes in type 1 diabetes in a safety-net hospital. *Journal of Diabetes Science and Technology*, 15(5), 1010-1017. <https://doi.org/10.1177/1932296821995810>
- Fauzan, A. & Kesuma, M. (2022). Halal digital technology: A study from an Islamic law perspective. *ACIEL*, 1(1), 47-52. <https://doi.org/10.21107/aciell.v1i1.75>
- Gündoğdu, A. (2018). Determinants of success in Islamic public-private partnership projects (PPPs) in the context of SDGs. *Turkish Journal of Islamic Economics*, 6(2), 25-43. <https://doi.org/10.26414/a055>
- Hadiati, E., Setianingrum, D., & Dwiyanto, A. (2024). Exploring the landscape: Challenges and opportunities for civil society in the era of Society 5.0. *KNE Social Sciences*. <https://doi.org/10.18502/kss.v9i2.14971>
- Hadiati, E., Setianingrum, D., & Dwiyanto, A. (2024). Exploring the landscape: Challenges and opportunities for civil society in the era of Society 5.0. *KNE Social Sciences*. <https://doi.org/10.18502/kss.v9i2.14971>
- Kaeophanuek, S., Na-Songkhla, J., & Nilsook, P. (2019). A learning process model to enhance digital literacy using critical inquiry through digital storytelling (CIDST). *International Journal of Emerging Technologies in Learning (IJET)*, 14(03), 22. <https://doi.org/10.3991/ijet.v14i03.8326>
- Lopulalan, D., Salakay, S., & Harun, M. (2024). The synergy between Islam and the local culture of Maluku, Indonesia. *Ibda Jurnal Kajian Islam dan Budaya*, 22(1), 103-122. <https://doi.org/10.24090/ibda.v22i1.8422>
- Nadifa, M., & Ambarwati, R. (2024). Islamic school with digital culture in the era of Society 5.0. *Cahaya Pendidikan*, 10(1), 10-19. <https://doi.org/10.33373/chypend.v10i1.5857>

- Nath, H., & Amin, R. (2023). Environmental justice and education: Bridging the gap between ecology, equity, and access. *Journal of Advanced Zoology*, 44(S-3), 1075-1082. <https://doi.org/10.17762/jaz.v44is-3.1061>
- Nurhayati, S., Musa, S., Boriboon, G., Nuraeni, R., & Putri, S. (2021). Community learning center efforts to improve information literacy in the community for cybercrime prevention during a pandemic. *Journal of Nonformal Education*, 7(1), 32-38. <https://doi.org/10.15294/jne.v7i1.26883>
- Pierce, G., & Cleary, P. (2024). The persistent educational digital divide and its impact on societal inequality. *PLOS ONE*, 19(4), e0286795. <https://doi.org/10.1371/journal.pone.0286795>
- Qadri, R., Pratama, R., Khabibi, A., Pratama, R., & Resi, A. (2024). Refining the cash-waqf blended finance model for infrastructure development. *Management and Accounting Review*. <https://doi.org/10.24191/mar.v23i01-09>
- Radjak, D., Jusuf, S., & Bongkan, A. (2024). The urgency of digitizing learning for Madrasah Aliyah Islamic boarding school students in the era of Society 5.0. *The Journal of Learning and Technology*, 3(1), 1-9. <https://doi.org/10.33830/jlt.v3i1.7896>
- Rahman, M., Setia, P., & Setiawan, A. (2023). The strategies of ajengans in mediating Islam and local traditions in rural West Bandung Regency. *Jurnal Iman dan Spiritualitas*, 3(1), 99-108. <https://doi.org/10.15575/jis.v3i1.24108>
- Ritonga, M. (2023). Human resource management in Islamic educational institutions to improve competitiveness in the Society 5.0 era. *International Journal of Sustainable Development and Planning*, 18(2), 611-619. <https://doi.org/10.18280/ijstdp.180231>
- Selwyn, N. (2010). Looking beyond learning: Notes towards the critical study of educational technology. *Journal of Computer Assisted Learning*, 26(1), 65-73. <https://doi.org/10.1111/j.1365-2729.2009.00338.x>
- Shafiq, A., Saleem, H., Sajid, S., & Bashir, N. (2024). Unveiling the determinants of Islamic mobile banking adoption: Evidence from Pakistan. *Review of Applied Management and Social Sciences*, 7(1), 53-68. <https://doi.org/10.47067/ramss.v7i1.363>
- Sholihah, H., & Nurhayati, S. (2024). Child protection in the digital age through education in the Islamic educational environment. *JIE (Journal of Islamic Education)*, 9(1), 200-218. <https://doi.org/10.52615/jie.v9i1.353>
- Tan, L. (2024). Research on the impact of COVID-19 on education inequality in China. *Lecture Notes in Education Psychology and Public Media*, 35(1), 62-65. <https://doi.org/10.54254/2753-7048/35/20232034>

- Umar, T., Chaerowati, D., & Drajat, M. (2023). Digital literacy of santri through Islamic boarding school culture. *Kne Social Sciences*. <https://doi.org/10.18502/kss.v8i18.14238>
- Valletta, R. (2016). Recent flattening in the higher education wage premium: Polarization, skill downgrading, or both? <https://doi.org/10.3386/w22935>
- Weiß, D., Rydland, H., Øversveen, E., Jensen, M., Solhaug, S., & Krokstad, S. (2018). Innovative technologies and social inequalities in health: A scoping review of the literature. *PLOS ONE*, 13(4), e0195447. <https://doi.org/10.1371/journal.pone.0195447>
- Zainuddin, Z., Abidin, Z., Susanti, A., & Muttaqin, M. (2024). Innovation and adaptation of Islamic religious education in madrasahs in the context of the Society 5.0 era. *Formosa Journal of Sustainable Research*, 3(10), 2157-2168. <https://doi.org/10.55927/fjsr.v3i10.11999>
- Zamroni, A., & Haq, H. (2023). Quality development of Islamic education in the era of Society 5.0: Opportunities and challenges. *Post Axial*, 98-103. <https://doi.org/10.59944/postaxial.v1i2.244>