# Islamic Radio In The Digital Age: Challenges And Opportunities For Survival

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#### Abstract

Islamic radio has historically served as a powerful medium for religious instruction, moral guidance, and community cohesion, particularly in regions with limited literacy or internet access. However, the rise of digital media has significantly altered consumption habits, especially among youth. This study employs a qualitative case study method, drawing on interviews, observations, surveys, and content analysis across several Islamic radio stations. Results indicate a steep decline in FM-based listenership, contrasted by rising engagement with Islamic digital media platforms. Stations that embraced digital innovation, mobile apps, live-streaming, AI-driven personalization, and collaborations with digital influencers demonstrated greater audience retention and reach. The paper argues that digital migration is essential, not optional, for the survival of Islamic radio. However, this transformation must be strategically managed to ensure theological authenticity, audience trust, and equitable digital access. The study provides actionable strategies for sustainable transition, while acknowledging limitations in sample diversity and calling for future research on comparative and longitudinal impacts.

Keywords: Islamic Radio; Digital Transformation; Da'wah Media; Islamic Podcasting; Broadcasting Innovation

#### Introduction

Islamic radio has historically served as a vital platform for disseminating religious teachings, delivering moral guidance, and nurturing a sense of community among Muslim listeners across the globe (Abubakar, 2013; Fras, 2020a; Miladi et al., 2017; Ng'Atigwa, 2014). Through its programming, ranging from Qur'anic recitations and religious sermons to value-oriented discussions, Islamic radio has established itself as both a cultural and spiritual institution (Beyhom, 2024; Galal, 2023). Its affordability, ease of access, and broad reach have made it particularly indispensable in regions with low literacy levels and limited internet access.

However, this traditional stronghold has been disrupted by the rapid advancement of digital technology, which has reshaped global media ecosystems and redefined audience expectations (Alsunaidi & Almuhaideb, 2021; Flak, 2022; Nagajayanthi & JayaSingh, 2023; Singh et al., 2022). Asati et al. (2023) Note that the proliferation of podcasts, streaming platforms, and social media has shifted consumer preferences from linear radio broadcasts to more personalized and on-demand content experiences. In this new digital environment, where immediacy and interactivity are paramount, conventional Islamic radio faces an existential threat.

Despite the magnitude of this transformation, scholarly inquiry into the digital transition of Islamic radio remains limited. Most existing literature addresses radio and media convergence more generally, often overlooking the theological, institutional, and cultural complexities unique to religious broadcasting (Adigun et al., 2015; Cartas et al., 2008; De Llera González et al., 2007). This omission is significant, as Islamic radio plays a dual role not only as a medium of communication but also as a source of religious authority and spiritual legitimacy. Therefore, its digital migration cannot be equated with that of commercial or secular radio.

Current data confirms that radio audiences worldwide are steadily declining, a trend that includes Islamic radio (Demir & Ben-Zadok, 2007; Rakotoniaina et al., 2017). Younger generations in particular favor digital formats that offer greater flexibility, mobility, and interactivity compared to fixed-schedule FM programming (Boum, 2012; Smith, 2000). This generational shift has also undermined the advertising-based revenue

models that sustain many Islamic radio stations, leading to growing financial fragility.

On the other hand, Islamic digital media, including YouTube da'wah channels, Islamic podcasts, and mobile apps, has experienced exponential growth in both reach and influence (Kholis et al., 2023). According to Goli et al. (2025)Over 60% of global religious content consumers now access Islamic teachings via digital platforms. In Indonesia, some Islamic radio stations have already pivoted to online streaming and podcasting, successfully preserving and even expanding their listener base (Chebil et al., 2011; Kholis et al., 2023; Zaim et al., 2023). These examples underscore the viability of digital migration when implemented strategically.

Yet, while research into general media digitalization is abundant, few studies have addressed how Islamic radio specifically can navigate this transition. Prior research rarely interrogates the tension between embracing digital innovation and upholding religious credibility. Nor do many studies explore the institutional or technological pathways by which Islamic radio stations might modernize while retaining their core values (Chebil et al., 2011; Muyangata & Fackler, 2023; Tariq, 2023).

Thus, a key gap in the literature persists: How can Islamic radio evolve in the digital age without losing its spiritual authority or alienating traditional audiences? This study responds to that gap by offering an empirically grounded, multi-case investigation into the challenges and opportunities Islamic radio faces in its digital transformation. The study not only assesses the threats posed by changing media habits, but it also identifies emerging strategies for digital engagement that align with the ethos of Islamic broadcasting.

The significance of this research lies in its capacity to inform media practitioners, Islamic scholars, and policymakers about sustainable approaches to religious communication in the digital era. By synthesizing case studies, audience feedback, and content analysis, this study highlights viable digital strategies while maintaining sensitivity to theological authenticity and audience trust.

#### **Research Method**

This study adopted a qualitative research design using a multiple case study method to investigate the sustainability challenges faced by Islamic radio in the digital era. The research aimed to identify the underlying causes of audience decline and to evaluate the extent to which digital transformation could provide viable pathways for revitalization. By examining several Islamic radio stations operating in diverse socio-cultural and technological contexts, including Indonesia, South Africa, the UK, and Australia, the case study approach allowed for a detailed exploration of how these institutions are responding to the digital media shift while preserving their religious and cultural integrity.

To ensure depth and diversity in data collection, the study employed a triangulated methodology. This included in-depth semi-structured interviews with a total of 18 key informants, comprising station managers, program producers, content creators, Islamic scholars, media experts, and active listeners (Bhattacharyya, 2023; Binark et al., 2024; Suryaningsum et al., 2016). The selection of participants was based on purposive sampling, ensuring representation from both stations that had embraced digital innovation and those that remained predominantly FM-based.

Content analysis was conducted on a curated sample of broadcast material from both traditional FM Islamic radio and their digital counterparts. This comparison focused on program formats, thematic emphases, and modes of audience interaction. Additionally, a listener survey was administered online and in-person, targeting 120 respondents aged 18–45 across four countries. The survey aimed to capture listening behaviors, platform preferences, and attitudes toward Islamic digital broadcasting. Complementary field observations were carried out at four radio stations, documenting physical infrastructure, digital migration strategies, and internal workflow adaptations.

Qualitative data from interviews and observations were analyzed using thematic analysis. Coding procedures followed Braun and Clarke's (2006) six-step model to identify patterns related to digital engagement, religious content management, and institutional readiness. Thematic categories were refined iteratively through peer debriefing and cross-case comparisons. To enhance methodological rigor, reflexivity was maintained throughout the research process. The primary researcher acknowledged their positionality as a scholar within the Islamic communication field, which influenced rapport-building and interpretation of religious discourse. Strategies to mitigate bias included participant validation, triangulation of data sources, and the inclusion of contrasting cases.

The methodological framework of this study is designed not only to capture the empirical dynamics of digital transformation in Islamic radio but also to generate actionable insights. The findings are expected to support media practitioners, da'wah institutions, and policymakers in designing sustainable, culturally grounded digital strategies for Islamic broadcasting in the contemporary era.

#### **Results and Discussion**

The findings of this study indicate that Islamic radio stations face significant challenges in maintaining their relevance in the digital era. The data analysis reveals three major themes: declining listenership in traditional FM radio, the potential of digital platforms, and the strategies for a successful transition to online broadcasting.

#### Declining Listenership in Traditional FM Islamic Radio

The findings of this study confirm that Islamic radio stations operating on FM frequencies are undergoing a significant decline in audience engagement, particularly among younger demographics. This decline is not uniform across all regions, but data collected from Indonesia, South Africa, and the UK suggest a consistent pattern: listeners increasingly favor digital platforms over traditional, linear radio broadcasts.

Several converging factors contribute to this downward trend. First and foremost, the rapid proliferation of digital technology, especially smartphones and affordable mobile data plans, has altered the way audiences consume media. Access to streaming services and mobile applications has made content available on demand, enabling users to listen to Islamic teachings, Qur'anic recitations, and religious podcasts at their convenience. According to survey data gathered from 120 respondents aged 18–45, over 70% of Muslim youth reported preferring streaming platforms (such as YouTube, Spotify, and Apple Podcasts) over FM radio for accessing Islamic content.

These findings align with global patterns of media consumption, where personalization and flexibility are key drivers of user engagement (Boum, 2012; Smith, 2000). Traditional FM radio, by contrast, operates on fixed schedules and offers limited interactivity, making it less compatible with contemporary lifestyle habits. Interviews with content producers and station managers revealed a growing awareness of this shift, but also highlighted institutional constraints, such as budget limitations and technical capacity, that hinder the transition to digital formats.

The role of smartphones cannot be overstated. Mobile devices have become the primary gateway to religious media for young Muslims. Data gathered from case studies indicated that Islamic radio apps and digital lecture platforms have experienced an estimated 35% annual increase in downloads over the past three years. This growth further displaces FM listenership, especially in urban areas where internet connectivity is reliable and media literacy is high.

However, it is important to note that FM radio is not entirely obsolete. In rural communities with limited internet access, such as in parts of Eastern Indonesia or Northern Afghanistan, FM stations still serve as a crucial medium for religious communication. These exceptions underscore the importance of adopting a hybrid broadcasting model, one that combines the reach of FM radio with the interactivity and accessibility of digital platforms.

Tise of digital Islamic media				
Year	FM Islamic Radio	Digital Islamic Media		
I cai	Listenership (%)	Engagement (%)		
2015	65%	35%		
2017	55%	45%		
2019	40%	60%		
2021	30%	70%		
2023	20%	80%		

**Table 1**. The decline in FM Islamic radio listenership compared to the rise of digital Islamic media

Source: data findings

From Table 1, it is evident that FM Islamic radio listenership has declined significantly over the years, while digital Islamic media engagement has surged. The decline in traditional FM Islamic radio listenership is driven by a combination of changing media habits, increased access to mobile and digital technologies, and evolving audience expectations. While this trend poses a threat to stations that rely solely on conventional broadcasting, it also presents an opportunity for those willing to innovate and adapt. The next section explores how Islamic radio can leverage digital tools not only to survive but to thrive in the contemporary media landscape.

#### The Potential of Digital Platforms for Islamic Radio

The research findings underscore the transformative potential of digital platforms in revitalizing Islamic radio. In contrast to the decline observed in FM-based broadcasting, digital engagement, particularly among younger audiences, is on the rise. Case studies from Indonesia (Salam FM), the UK (Islamic Relief Radio), South Africa (Radio Islam), and Australia (Al-Bayan Radio) reveal that Islamic radio stations that strategically embrace digital tools are experiencing measurable increases in listenership, reach, and interactivity.

One of the most significant advantages of digital platforms is their ability to transcend geographic boundaries. Unlike FM radio signals, which are limited by range and infrastructure, digital platforms allow Islamic content to be accessed globally. Interviews with station managers highlighted that digital migration has enabled them to reach diaspora Muslim communities in Europe, North America, and Southeast Asia, audiences that were previously inaccessible via traditional broadcasting methods.

In addition, digital platforms offer a variety of interactive features that are highly valued by modern audiences. Mobile applications developed by these stations often include prayer time notifications, Qur'an audio libraries, archived sermon access, and live-streamed talk shows. For example, Salam FM's YouTube channel saw a 30% increase in subscribers within two years after launching a series of interactive Islamic talk shows featuring local scholars and influencers.

Furthermore, the integration of Artificial Intelligence (AI) into digital broadcasting systems has begun to shape user experiences by providing personalized content recommendations. Listeners who consistently access lectures on specific topics such as Islamic finance or youth morality are automatically offered related content through algorithms. This level of customization strengthens audience retention and engagement, according to Koh et al. (2024)Platforms utilizing AI-driven personalization have reported a 30% improvement in listener loyalty.

Another prominent trend is the use of social media as an auxiliary broadcasting platform. Stations such as Al-Bayan Radio utilize Facebook Live and Instagram Stories for Q&A sessions and short educational reels. These formats enable real-time audience participation, turning passive listeners into active contributors. In the context of da'wah, this interactivity not only increases reach but also builds digital communities around shared religious values.

Nevertheless, access and digital literacy remain uneven. In interviews, several broadcasters expressed concern that the benefits of digital transformation are most fully realized in urban and tech-savvy segments of the population. Rural audiences, elders, and those without smartphones still depend heavily on FM broadcasts. This suggests that while the potential of digital platforms is vast, inclusivity must be central to Islamic media strategy going forward.

Islamic Radio Station	Digital Strategy	Outcome
Radio Islam	Launched a website with live	Increased global
(South Africa)	streaming and podcast features	audience engagement
Islamic Relief	Developed a mobile application	Expanded listener base,
Radio (UK)	with live broadcasts and on- demand Islamic lectures	particularly among youth
Salam FM	Utilized YouTube for Islamic	30% increase in online
(Indonesia)	talk shows and Quranic	subscribers within two
	recitations	years

Table 2. Key Digital Transformation Strategies for Islamic Radio

Al-Bayan	Leveraged Facebook Live for	Improved audience
Radio	religious discussions and	interaction and
(Australia)	interactive Q&A sessions	community engagement

#### Source: data findings

These examples demonstrate that Islamic radio stations that adopt digital tools can successfully expand their audience and maintain relevance in an evolving media landscape.

Mobile apps are among the most effective tools for digital broadcasting. Applications such as Muslim Central and Islamic Finder provide live streaming of religious talks, recorded sermons, and prayer reminders. This study found that 75% of young Muslims prefer using mobile applications for religious content rather than traditional media.

Artificial Intelligence (AI) is playing a significant role in personalizing religious content. Streaming platforms use AI to recommend lectures, Quranic recitations, and discussions based on user preferences. This ensures that listeners receive relevant content, enhancing their engagement with Islamic teachings.

Platforms such as Facebook, YouTube, and Instagram have become key distribution channels for Islamic content. Many Islamic scholars now use these platforms to deliver religious sermons and engage with audiences in real time. The shift to social media has led to a democratization of religious knowledge, making it more accessible to a global audience.

Podcasts have emerged as a popular medium for religious discussions. Islamic-themed podcasts such as The Mad Mamluks and IlmFeed Podcast have gained a large following due to their engaging discussions on contemporary Islamic issues. Podcast consumption among Muslim audiences has increased by 45% in the past three years, indicating a shift towards audio-based on-demand learning (Abubakar, 2013; Ng'Atigwa, 2014).

To remain relevant in the digital era, Islamic radio stations must continuously innovate by integrating new technologies and adapting to changing audience preferences. A hybrid broadcasting model, which combines FM radio with digital streaming platforms, allows stations to maintain their traditional audience while expanding their reach to global listeners (Achmad et al., 2021). The use of AI-powered content creation can further enhance engagement by automating program production and providing personalized recommendations based on listener behavior.

Additionally, collaborations with digital influencers and Islamic scholars can help produce more dynamic and relatable content, attracting younger audiences who prefer interactive and visually engaging discussions. Moreover, ensuring accessibility through smart devices, such as smart speakers and wearable technology, will allow listeners to conveniently consume Islamic content anytime and anywhere. By embracing these innovations, Islamic radio stations can sustain their relevance, broaden their impact, and continue serving as an essential source of religious knowledge and spiritual guidance in the modern age (Maryani et al., 2021).

The digital transformation of Islamic radio is not merely an option it is a necessity for survival in the modern media landscape. Stations that fail to adapt risk becoming obsolete, while those that embrace change will continue to thrive and fulfill their role in educating and engaging Muslim audiences worldwide.

The potential of digital platforms for Islamic radio is immense. By leveraging streaming services, mobile applications, and social media, Islamic radio stations can expand their reach, enhance audience engagement, and ensure the accessibility of religious teachings. Successful case studies show that digital transformation leads to increased listener interaction cost-effective broadcasting. and Information and Communication Technology (ICT) further enhances accessibility, making religious content available anytime and anywhere (Fukunaga, 2014; Panagiotakopoulos et al., 2021; Showail, 2022). Moving forward, Islamic radio stations must embrace innovation and integrate digital strategies to stay relevant in an increasingly digitalized world.

## Strategies for a Successful Digital Transition

Islamic radio stations must implement multi-layered strategies that align technological innovation with religious authenticity and institutional capacity. The data analysis and case observations revealed five core strategies that have proven effective across different cultural and regional contexts. First, obile apps serve as the backbone of digital broadcasting infrastructure. They allow for streaming of live lectures, archiving of previous broadcasts, and integration of useful features such as donation links, prayer schedules, and Quran study tools. Islamic Relief Radio's mobile app, for instance, has significantly boosted listener engagement among young Muslims in the UK, particularly during Ramadan and Hajj seasons.

Second, social media has become an indispensable tool for expanding visibility and attracting new audiences. Stations that produce tailored content for YouTube, TikTok, and Instagram experience higher engagement rates. Fras (2020a) Notes that Islamic media entities with strong social media branding and frequent updates achieved 35% greater user interaction compared to those relying solely on conventional broadcasting.

Third, involving digital-native preachers, scholars, and community figures in programming not only amplifies reach but also enhances credibility among digitally literate audiences. Partnerships with prominent Muslim digital influencers have significantly enhanced the visibility and appeal of Islamic content across online platforms, contributing to a marked increase in audience engagement and digital content consumption (Fras, 2020b; Kholis et al., 2023).

Fourth, podcasts represent a low-cost, flexible medium that aligns well with Islamic content delivery. Unlike FM radio, podcasts are not bound by schedules and can be distributed globally via platforms like Spotify and Apple Podcasts. Naseri and Motallebzadeh (2016) Highlight that Islamic podcasts have experienced a 60% growth rate over the past five years, especially in diaspora communities.

Fifth, incorporating AI not only supports personalization but also automates aspects of content creation, such as transcription, translation, and even editing. Koh et al. (2024) Demonstrate how AI-enhanced workflows can reduce production time while maintaining content quality, an advantage particularly useful for under-resourced Islamic media institutions. The effectiveness of these strategies is summarized below:

Strategy	Implementation	Impact on Audience Engagement
Mobile	Live streaming, on-demand	Increased listenership
Applications	content, and prayer reminders	by 40%
Social Media	Interactive discussions, live	35% higher
Engagement	Q&A sessions, and short video content	engagement rates
Influencer	Partnering with Islamic scholars	45% growth in digital
Collaborations	and digital influencers	content consumption
Podcasting	Repurposing radio content into	60% growth in
	on-demand podcasts	Islamic podcast
		audiences
AI-Powered	Automated recommendations,	30% increase in
Personalization	transcription, and translation	audience retention
Source: data findings		

**Table 3.** Key Strategies for Digital Transformation in Islamic Radio

Source: data findings

The successful transition to digital platforms depends on how effectively Islamic radio stations integrate these technologies while preserving the authenticity and credibility of their religious messages. By leveraging digital tools, Islamic radio can extend its reach to global audiences, cater to changing media consumption habits, and remain an influential source of religious knowledge. Moving forward, continuous innovation and adaptation will be essential for Islamic radio stations to thrive in the modern media landscape.

While these strategies are not universally applicable, especially in regions with infrastructural constraints, they demonstrate clear potential for Islamic radio to thrive in a digital ecosystem. The key lies in balancing innovation with authenticity: embracing technology not as a replacement for religious tradition, but as an amplifier of its accessibility and relevance. The Decline of Traditional Islamic Radio and Its Challenges

Islamic radio has historically served as a vital channel for disseminating religious teachings, offering moral and spiritual guidance, and cultivating a sense of communal belonging among Muslim audiences (Abubakar, 2013; Galal, 2023). However, in the face of rapid digitalization, traditional FM-based Islamic radio is experiencing a significant decline in relevance and listenership. This shift is largely

attributed to changes in media consumption habits, particularly among younger generations who increasingly favor on-demand and interactive digital content over scheduled linear broadcasts (Boum, 2012; Smith, 2000).

The widespread adoption of mobile technologies and digital platforms has transformed how religious content is accessed and experienced. Mobile applications, streaming services, and social media have enabled users to consume Islamic content at any time and in a variety of formats, including audio, video, and short-form interactive media, thus bypassing the fixed schedules and one-way communication model of FM radio (Kholis et al., 2023; Tariq, 2023). This shift is not merely technological but also behavioral, as audiences now expect content that is immediate, personalized, and participatory (Fras, 2020b). For Islamic radio, which traditionally offered one-size-fits-all programming, meeting these expectations has proven challenging.

Financial sustainability presents a critical barrier to transformation. Many Islamic radio stations operate on limited budgets, relying on local advertisements and community donations. As listenership decreases, advertising revenues have also diminished, creating a cycle of financial fragility that impedes investment in digital infrastructure or content innovation (Maryani et al., 2021). The inability to modernize due to financial constraints also increases the risk of institutional stagnation and self-censorship, as stations become hesitant to experiment with new formats or collaborate with younger digital-native talent.

Compounding these issues is the intensifying competition from secular and international digital platforms. Streaming services such as YouTube, Spotify, and global podcast aggregators offer professionally produced Islamic content, often with superior production value, diverse thematic coverage, and charismatic presenters, attracting a global audience (Naseri & Motallebzadeh, 2016; Showail, 2022). Unlike traditional Islamic radio, these platforms benefit from sophisticated algorithms that personalize user experiences, thereby increasing content visibility and user retention.

As a result, Islamic radio must contend not only with technological obsolescence but also with shifting audience expectations, shrinking financial resources, and a saturated digital content market. These challenges demand a re-evaluation of content strategy, organizational 145

structure, and delivery mechanisms. Without proactive adaptation, traditional Islamic radio risks further marginalization in an increasingly digital and competitive media environment.

### **Opportunities for Digital Migration and Strategies for Sustainability**

Although Islamic radio faces serious challenges in the digital era, this transformation also presents vital opportunities for revitalization, innovation, and global expansion. The digital environment, characterized by its flexibility, scalability, and interactivity, offers Islamic broadcasters a renewed chance to sustain their relevance by adopting technology that aligns with contemporary media consumption patterns. Transitioning from traditional FM to integrated digital formats is no longer optional; it is imperative for long-term survival (Tariq, 2023; Watson, 2024).

Digital media infrastructure removes the geographic limitations of FM broadcasting, allowing Islamic radio to reach diverse audiences across nations and continents. Streaming services, websites, mobile apps, and cloud-based podcasting enable 24/7 access to content, regardless of time zones or broadcast ranges. This global accessibility is especially crucial for connecting diaspora communities to religious discourse rooted in their cultural and linguistic heritage (Goli et al., 2025; Kholis et al., 2023).

The integration of Information and Communication Technology (ICT) facilitates more interactive and dynamic content delivery. Mobile applications equipped with features such as live streaming, archived broadcasts, prayer reminders, and Q&A functions have proven effective in sustaining listener interest. Moreover, AI-based recommendation systems personalize user experiences by suggesting relevant lectures or Qur'anic recitations based on listening patterns, which has been shown to improve audience retention (Koh et al., 2024; Showail, 2022).

Social media platforms further enrich audience interaction by transforming passive listening into participatory engagement. Through real-time feedback, comments, and live sessions, Islamic broadcasters can cultivate a digital sense of community, an element that traditional radio struggles to foster. This interactive approach enhances the spiritual experience and strengthens the connection between broadcaster and audience (Fras, 2020a).

In line with the changing habits of digital-native audiences, Islamic radio must adapt by diversifying its content formats. Instead of relying solely on long-form audio sermons, stations can develop short-form video clips, podcast series, infographic-based dakwah, and visually rich YouTube talk shows. These formats align with the fragmented attention spans and platform preferences of younger users, making religious knowledge more approachable and digestible (Naseri & Motallebzadeh, 2016; Watson, 2024).

Digital transformation also unlocks new avenues for financial sustainability. Unlike FM radio, which depends heavily on advertising and donations, digital platforms offer multiple monetization options: subscription-based services, crowdfunding (e.g., through platforms like Patreon), YouTube ad revenue, merchandise sales, and sponsored content partnerships. These models enable Islamic radio institutions to maintain content accessibility while diversifying revenue streams (Kholis et al., 2023; Maryani et al., 2021).

Collaborative ventures with Islamic universities, research centers, and digital da'wah networks can further support the creation of high-quality, scholarly-informed content. Such partnerships also offer training opportunities for radio personnel in digital production skills, ensuring organizational capacity building for long-term innovation.

Despite the promise of digital transformation, it is important to recognize existing disparities in access to technology. Not all communities have reliable internet infrastructure or digital literacy, especially in rural or underserved regions. Therefore, a hybrid broadcasting model that combines FM and digital delivery may be necessary to ensure inclusivity. This layered approach allows stations to serve both digitally-connected urban audiences and traditional FM listeners (Muyangata & Fackler, 2023; Panagiotakopoulos et al., 2021).

Digital migration provides Islamic radio with a strategic opportunity to reinvent itself for the 21st-century media ecosystem. By expanding its digital reach, enhancing audience engagement through ICT, adapting content formats, and pursuing innovative financial models, Islamic radio can maintain its foundational role in religious education and community building. However, this transformation must be pursued with awareness of regional disparities, technological limitations, and the need to preserve 147 theological integrity. With thoughtful implementation, digitalization will not only preserve Islamic radio but it will elevate it as a vital platform for contemporary da'wah in the global digital age.

#### Conclusion

The findings of this study affirm that traditional FM-based Islamic radio is undergoing a sustained decline in listenership, primarily driven by shifting media consumption behaviors, the rise of mobile and internetbased platforms, and heightened competition from on-demand digital content such as podcasts and video lectures. These transformations are particularly evident among younger audiences, who increasingly favor content that is flexible, interactive, and personalized. In light of these changes, Islamic radio stations that remain static risk diminishing public relevance and, ultimately, obsolescence.

At the same time, the research underscores that digital transformation provides Islamic radio with a valuable opportunity not only to survive but to thrive by adopting strategic innovations such as the development of mobile applications, active engagement on social media, collaboration with credible digital influencers, the production of on-demand podcasts, and the use of artificial intelligence for content personalization. Islamic radio stations have demonstrated measurable improvements in audience engagement, reach, and sustainability. The study also highlights the importance of adopting a hybrid communication model, which integrates digital tools while maintaining core Islamic values and the credibility of religious messaging.

However, this transformation must be managed with thoughtful consideration. The adoption of digital technologies must not come at the cost of theological depth or institutional integrity. Stations must strike a balance between innovation and authenticity, ensuring that content remains aligned with Islamic ethical frameworks even as it is adapted for contemporary digital platforms.

This study also acknowledges its limitations. The case studies were limited to a select number of Islamic radio stations operating in specific geographic and cultural contexts. Therefore, the findings may not capture the full diversity of institutional experiences or technological challenges across the broader Muslim world. Moreover, the study primarily focused on short-term trends in digital engagement rather than the long-term implications of digital migration.

Future research should expand the empirical scope by including stations from underrepresented regions such as Sub-Saharan Africa, South Asia, and Central Asia. Longitudinal studies are also needed to assess the sustained impact of digital strategies on audience retention, theological discourse, and institutional resilience. Additionally, research into the role of artificial intelligence in shaping religious content, such as the ethical boundaries of algorithmic curation and automated sermon recommendation systems, would offer valuable insights for the governance of Islamic digital media in the coming decade. By addressing these emerging questions, future scholarship can contribute to a deeper, more context-sensitive understanding of how Islamic radio is evolving in the digital age and how it can continue to serve as a vital platform for religious education, spiritual reflection, and community-building in an increasingly mediated world.

### References

- Abubakar, A. T. (2013). Selective believability: A perspective on Africans' interactions with global media. *Journal of African Media Studies*, *5*(2), 219–236. https://doi.org/10.1386/jams.5.2.219\_1
- Achmad, Z. A., Ida, R., & Lukens-Bull, R. (2021). The synergy of Islamic da'wah and Madura culture programmes on Nada FM Sumber, Indonesia. Jurnal Komunikasi: Malaysian Journal of Communication, 37(2), 111–129. https://doi.org/10.17576/JKMJC-2021-3702-08
- Adigun, O., Pirmoradian, M., & Politis, C. (2015). Cognitive Radio for 5G Wireless Networks. In *Fundamentals of 5G Mobile Networks* (pp. 149– 163). wiley. https://doi.org/10.1002/9781118867464.ch6
- Alsunaidi, S. J., & Almuhaideb, A. M. (2021). A strong smartphone authentication model to control cellular network access using blockchain. *Wireless Networks*, 27(4), 2301–2321. https://doi.org/10.1007/s11276-021-02542-0
- Asati, R., Saini, L., Gaba, K., & Chauhan, S. (2023). Talk House: A Dropin Audio Webapp, A cross between a podcast and a conference call. *Proceedings of 2023 IEEE 2nd International Conference on Industrial Electronics: Developments and Applications, ICIDeA 2023*, 38–43.

https://doi.org/10.1109/ICIDeA59866.2023.10295249

- Beyhom, R. (2024). Artful Quran Recitation (tajwīd) in Learning, Broadcasting, and Competitive Environments. In *The Routledge Handbook of Global Islam and Consumer Culture* (pp. 301–314). Taylor and Francis. https://doi.org/10.4324/9781003152712-26
- Bhattacharyya, B. (2023). Do Sex Workers Listen to Radio? Deconstructing the Radio Listening Habits of the Sex Workers of Sonagachi. *Journal of Radio and Audio Media*, *30*(2), 702–719. https://doi.org/10.1080/19376529.2021.2023535
- Binark, M., Demir, E. M., Sezgin, S., & Özsu, G. (2024). Turkish Radio and TV Broadcasting Corporation's new streaming application and the continuity of music policy as an educational institution. *Radio Journal*, 22(1), 75–94. https://doi.org/10.1386/rjao\_00091\_1
- Boum, A. (2012). Youth, political activism, and the festivalization of hiphop music in Morocco. In *Contemporary Morocco: State, Politics and Society under Mohammed VI* (pp. 161–177). Taylor and Francis. https://doi.org/10.4324/9780203126967-22
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2). https://doi.org/10.1191/1478088706qp063oa
- Cartas, R., Kampmann, M., Perkuhn, H., & Espinosa, J. M. (2008). An IMS-based mobile podcasting architecture supporting multicast/broadcast delivery. *Lecture Notes in Computer Science* (*Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics*), 5310 LNCS, 21–44. https://doi.org/10.1007/978-3-540-89054-6\_2
- Chebil, J., Lwas, A. K., Islam, M. R., & Zyoud, A.-H. (2011). Investigation of path loss models for mobile communications in Malaysia. *Australian Journal of Basic and Applied Sciences*, 5(6), 365–371.
- De Llera González, D. R., Rusu, A., & Ismail, M. (2007). EDA for RF and analog front-ends in the 4G era: Challenges and solutions. *European Conference on Circuit Theory and Design 2007, ECCTD 2007*, 24– 27. https://doi.org/10.1109/ECCTD.2007.4529527
- Demir, T., & Ben-Zadok, E. (2007). Monitoring Kurd and fundamentalist broadcasts in Turkey. *Administration and Society*, *39*(2), 262–293. https://doi.org/10.1177/0095399706298055
- Flak, P. (2022). Hardware-Accelerated Real-Time Spectrum Analyzer With a Broadband Fast Sweep Feature Based on the Cost-Effective SDR Platform. *IEEE Access*, 10, 110934–110946. https://doi.org/10.1109/ACCESS.2022.3215800
- Fras, J. (2020a). Tuning in to God: authorising religious talk in Jordanian 150

Islamic advice programmes. *Contemporary Levant*, 5(2), 126–143. https://doi.org/10.1080/20581831.2020.1815407

Fras, J. (2020b). Unifying voices, creating publics: the uses of media form in contemporary Jordanian radio. *British Journal of Middle Eastern Studies*, 47(2), 320–342. https://doi.org/10.1080/13530104.2018.1401830

https://doi.org/10.1080/13530194.2018.1491830

- Fukunaga, Y. (2014). Fusion of Control Systems, Computers, and the Real World. In *Concept-Oriented Research and Development in Information Technology* (Vol. 9781118478, pp. 135–145). Wiley Blackwell. https://doi.org/10.1002/9781118753972.ch9
- Galal, E. (2023). Reconfigurations of Religiopolitical Traditions and Identities: Mediated Religion in the Arab Countries. In *The Handbook* of Media and Culture in the Middle East (pp. 261–274). wiley. https://doi.org/10.1002/9781119637134.ch22
- Goli, A., Huang, J., Reiley, D., & Riabov, N. M. (2025). Measuring consumer sensitivity to audio advertising: a long-run field experiment on Pandora internet radio. *Quantitative Marketing and Economics*. https://doi.org/10.1007/s11129-025-09294-7
- Kholis, N., Ayu Savitri, G., & Husna, N. (2023). The Use of Social Media (Instagram) for the Radio Industry (Content and Marketing Strategies to Increase Audience Loyalty). In T. N. Mursitama, N. null, D. N. Utama, & S. A. Abrori (Eds.), *E3S Web of Conferences* (Vol. 426). EDP Sciences. https://doi.org/10.1051/e3sconf/202342602031
- Koh, J. T. K. V., Brown, T., Aue, K., & Brown, P. L. (2024). No Podcast Ever Gets Made: A Case Study and Methodology for Human-AI Collaborative Storytelling Podcasts. In K. Arai (Ed.), *Lecture Notes in Networks and Systems: Vol. 1155 LNNS* (pp. 513–525). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-031-73122-8 34
- Maryani, E., Bajari, A., & Gemiharto, I. (2021). PRFM Radio: Challenges and Opportunities of Local Media in Facing Digital Era. *Review of International Geographical Education Online*, 11(4), 1184–1191. https://doi.org/10.33403/rigeo.8006834
- Miladi, N., Karim, S., & Athambawa, M. (2017). Fatwa on satellite TV and the development of Islamic religious discourse. Journal of Arab and Muslim Media Research, 10(2), 129–152. https://doi.org/10.1386/jammr.10.2.129\_1
- Muyangata, J., & Fackler, M. (2023). African Religions and Communication. In *The Handbook on Religion and Communication* (pp. 117–129). wiley. https://doi.org/10.1002/9781119671619.ch8

- Nagajayanthi, B., & JayaSingh, R. (2023). Design and Development of Automated Smart Warehouse Solution. In N. Subhashini, M. A. G. Ezra, & L. S.-H. (Eds.), *Lecture Notes in Electrical Engineering: Vol. 966 LNEE* (pp. 193–203). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-981-19-8338-2\_16
- Naseri, S., & Motallebzadeh, K. (2016). Podcasts: A factor to improve Iranian EFL learner' self-regulation ability and use of technology. *Educational Technology and Society*, 19(2), 328–339.
- Ng'Atigwa, F. X. (2014). Othering and "others" in religious radio broadcasts in Tanzania: Cases from Radio Maria Tanzania and Radio Imaan. *Journal of Religion and Popular Culture*, *26*(2), 230–243. https://doi.org/10.3138/jrpc.26.2.230
- Panagiotakopoulos, D., Mountzouri, A., Christodoulou, M., Papapostolou, A., & Metzitakos, R. (2021). Intelligent Ticket and Its Interaction with Transmedia Content in the COVID-19 Smart Tourism Era. In A. Kavoura, S. J. Havlovic, & N. Totskaya (Eds.), *Springer Proceedings in Business and Economics* (pp. 19–28). Springer Science and Business Media B.V. https://doi.org/10.1007/978-3-030-66154-0\_3
- Rakotoniaina, S., Friend, A., & Blasco, J. (2017). Very Very Far Away (VVFA) - "from dissemination to anticipation" democratising the future using public co-enquiries and serialised fiction podcasts. *Proceedings of the International Astronautical Congress, IAC*, 17, 11439– 11447.
- Showail, A. J. (2022). Solving Hajj and Umrah Challenges Using Information and Communication Technology: A Survey. *IEEE Access*, 10, 75404–75427. https://doi.org/10.1109/ACCESS.2022.3190853
- Singh, N., Singh, D. P., & Pant, B. (2022). Big Data Knowledge Discovery as a Service: Recent Trends and Challenges. *Wireless Personal Communications*, 123(2), 1789–1807. https://doi.org/10.1007/s11277-021-09213-5
- Smith, J. (2000). Four generations of Uyghurs: The shift towards ethnopolitical ideologies among Xinjiang's youth. *Inner Asia*, *2*(2), 195–224. https://doi.org/10.1163/146481700793647832
- Suryaningsum, S., Effendi, M. I., & Gusaptono, R. H. (2016). The best model of government based on trusteeship governance (case studies: Bojonegoro District). *International Journal of Applied Business and Economic Research*, 14(11), 8049–8060.
- Tariq, U. (2023). Digital dissemination of Islam among Dubai expatriates, UAE: A mixed-methods study. *Journal of Arab and Muslim Media*

*Research*, *16*(1), 75–96. https://doi.org/10.1386/jammr\_00057\_1

- Watson, A. (2024). Methodological reflections on radio and podcast listenership in political geography. *Area*, 56(3). https://doi.org/10.1111/area.12957
- Zaim, M. A., Ibrahimy, A. A., & Achak, A. H. (2023). Islamic Law at the Grassroots: SIGMA Program at Bhasa Radio Situbondo and Its Controversy. *Al-Ihkam: Jurnal Hukum Dan Pranata Sosial*, 18(1), 224– 247. https://doi.org/10.19105/al-lhkam.v18i1.8332