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CONTRIBUTION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN ENHANCING WORSHIP SERVICES: A CASE OF DELIVERANCE CHURCH IN NYAMIRA COUNTY, KENYA

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ABSTRACT

The study examined the role of Information and Communication Technology (ICT) in enhancing worship services in Deliverance Church, Nyamira County, Kenya. It focused on social media platforms, online streaming, broadcasting, and digital communication tools and their relationship with social participation, accessibility, communication, spiritual engagement, and community outreach. The study adopted a descriptive cross-sectional design with a mixed-methods approach, involving congregants and church leaders. Quantitative data were collected using structured questionnaires, while qualitative data were obtained through interviews with selected church leaders. Quantitative data were analysed using descriptive and inferential statistics, while qualitative data were examined thematically. The findings indicated that social media platforms facilitated religious communication, information sharing, online worship, and community outreach. Online worship provided an alternative when physical attendance was not possible, although participants did not necessarily consider it equivalent to in-person worship. The study concluded that ICT could complement traditional worship by improving accessibility and communication while supporting community participation. However, digital access alone did not guarantee meaningful worship participation or deeper spiritual engagement. The study recommended integrating digital platforms with physical worship services, strengthening two-way communication, and addressing barriers related to internet costs, network connectivity, and digital literacy.

KEYWORDS: Information and Communication Technology; worship services; social media; online streaming; digital communication; Nyamira County.

1. INTRODUCTION

Traditionally, worship was a physical activity in which members of a congregation or a faith community engaged in worship together through prayer, preaching, song, fellowship and religious activities (Rogers, 2023). In recent years, with the development of Information and Communication Technology (ICT), the possibilities of religious communication and sharing of spiritual items was increased more than just within the physical church. Digital tools such as social media, live streaming services, text messaging apps, church websites, projectors, and microphones enable effective sharing of sermons, devotional messages, announcements and requests for prayer, and also promote communication and participation among members of the faith community. These technologies also permit churches to keep their lines of communication open with those who may not be able to attend church physically due to travel, health and other factors. However, challenges to consider, when you want to use ICT during worship, include the cost of the digital devices, the reliability of the internet connection, a lack of digital literacy, and the difficulty in replicating the inter-personal fellowship that takes place at congregational gatherings (Martínez & Fernández, 2021).

In this context this study was focused on Deliverance church in Nyamira County, Kenya. It addresses the impact of social media, online streaming and broadcasting resources and digital communication tools, and thinking about how these are judged to help people in worship to participate, be included, to engage with others and to share worship. The local focus is included to give local evidence to help answer the question of how to use ICT in church ministry.

1.1 GENERAL OBJECTIVE

The purpose of this study was to examine the role of Information and Communication Technology (ICT) in enhancing worship services at Deliverance Church in Nyamira County, Kenya, focusing on social media, online streaming, worship broadcasting, and digital communication tools.

1.2 RESEARCH QUESTIONS

1. How does the use of social media influence communication and congregational participation during worship services at Deliverance Church in Nyamira County, Kenya?

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2. To what extent do online streaming and broadcasting enhance access to worship services among congregants who are unable to attend physically?
3. How do digital communication tools facilitate church announcements, coordination of church activities, distribution of prayer requests, and feedback from congregants at Deliverance Church in Nyamira County, Kenya?

1.3 JUSTIFICATION OF THE STUDY

1. The study may support the church leadership to identify the way by which ICT can impact the planning, coordination and delivery of worship.
2. Results will demonstrate the potential of social media and digital tools to engage church members in worship.
3. The study may prove the ability online streaming and broadcasting can bring to the members who are not in the position to attend the actual service to participate in the same.
4. The study may emphasize on how the use of digital communication tools can enhance information sharing communication between the church leaders and the members.
5. The research may identify the possibilities for the church in using ICT to enhance spiritual development and to encourage spiritual fellowship and continuity of worship.
6. Their research may discover obstacles that relate to the use of ICT and propose ways in which this could be improved in the activities of the church.
7. It may make contribution to the already existing body of knowledge pertaining to role of ICT in religious institutions especially African churches in Kenya.

2. LITERATURE REVIEW

2.1 SOCIAL MEDIA PLATFORMS AND WORSHIP PARTICIPATION

Mukami (2025), in the study titled Assessment of Social Media Use in Church Ministry in the Methodist Church in Kenya, Nyambene Synod, examined the adoption of social media in church ministry, its contribution to ministry activities, and the challenges associated with its use. The study highlighted the relevance of social media to evangelism, fellowship, and outreach, while also noting barriers to effective utilisation. These findings provide a useful starting point for understanding how digital platforms support church activities in a Kenyan context. However, because the study focused on the Methodist Church in the Nyambene Synod, its findings do not fully explain how social media shapes communication and participation during worship at Deliverance Church in Nyamira County.

Similarly, Birya and Mwamzandi (2025), in Religious Institutions' Use of Social Media Platforms During COVID-19 in Kenya, investigated how religious institutions used platforms such as YouTube and Facebook to communicate with congregants and provide spiritual and emotional support during pandemic-related restrictions. Their findings underscored the role of social media in sustaining religious communication and sharing information when ordinary congregational activities were disrupted. While this research offers relevant evidence from Kenya, its emphasis on crisis-period communication leaves questions about the role of social media in routine worship participation and ongoing congregational interaction.

Extending this discussion beyond the Kenyan context, Núñez Cruz et al. (2024), in Adapting to the Digital Pulpit: Social Media Strategy of a Peruvian Church Amidst COVID-19, examined how a church in Lima used digital communication strategies during the pandemic. Through social media content analysis, interviews, and focus group discussions, the researchers explored how the church-maintained contact with its congregation. Their findings suggested that digital content, including live broadcasts and short-form videos, helped sustain engagement and maintain an online religious community. Nevertheless, the study's focus on a Peruvian church means that its findings cannot be transferred directly to the Kenyan setting without considering contextual differences. Taken together, these studies suggest that social media can support religious communication, fellowship, and outreach. However, the extent to which it encourages active participation during worship may vary according to congregational context, digital access, and patterns of use. This limitation provides a rationale for examining how social media relates to communication and worship participation specifically among congregants of Deliverance Church in Nyamira County.

2.2 ONLINE STREAMING AND BROADCASTING AND ACCESS TO WORSHIP

Recent Kenyan research has also considered the role of digital services in sustaining worship and supporting spiritual participation. Kiruja et al. (2025), in Digital Faith Formation: Evaluation of Online Church Services Impact on Youth Spiritual Growth in Full Gospel Churches of Kenya, Meru South District, Kenya, examined the relationship between online church services, youth participation, and spiritual growth. The study used a descriptive design and collected data through questionnaires, interviews, and focus group discussions. Its findings indicated that online services offered flexibility and improved accessibility, although internet access and digital literacy continued to affect participation and spiritual development. The study also reported a preference for hybrid worship among some participants. Although this research provides useful evidence from a Kenyan church context, its emphasis on youth and spiritual growth differs from the present study's broader focus on online streaming, broadcasting, and access to worship among congregants.

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Nwaomah (2025), in An Enquiry on the Use, Benefits and Challenges of Virtual/Hybrid Worship in the Seventh-Day Adventist Church in Kenya, examined the use of virtual and hybrid worship, the benefits associated with these approaches, and the challenges experienced by congregants. The study contributes to understanding how churches combine digital services with physical gatherings. Its relevance to the present study lies in its examination of virtual and hybrid worship within Kenya. However, further investigation is needed to establish how online streaming and broadcasting specifically influence worship accessibility among congregants of Deliverance Church in Nyamira County.

In a different setting, McKenna (2024), in Exploring the Challenges and Benefits of Online Worship within Rural Congregations in The Episcopal Church (USA): Listening to Rural Lay People, explored rural congregants' experiences of online worship using responses from the COVID-19 and Church-21 survey. The study identified accessibility, convenience, opportunities for faith development, and connections with other congregations as perceived benefits. It also noted technical limitations and concerns about the quality of online worship. The findings supported consideration of online and in-person services as complementary ways of meeting congregational needs. Nevertheless, because the research was conducted in the United States, its findings require contextual consideration before being applied to churches in Kenya.

Overall, the literature suggests that online streaming and broadcasting can extend worship services to people who cannot attend physically because of distance, illness, disability, work, or other circumstances. Yet, access to a broadcast does not necessarily translate into active participation or an experience equivalent to in-person worship. Accordingly, the present study examines how online streaming and broadcasting contribute to worship accessibility among congregants of Deliverance Church in Nyamira County.

2.3 DIGITAL COMMUNICATION TOOLS AND CONGREGATIONAL ENGAGEMENT

Digital communication is closely connected to the use of social media and online worship because churches also need reliable ways to share information and coordinate congregational activities. Birya and Mwamzandi (2025), in their study of religious institutions' use of social media during COVID-19 in Kenya, highlighted the contribution of digital platforms to information sharing and communication during periods of disruption. Their findings establish the relevance of digital communication in religious settings. However, the study's emphasis on social media during the pandemic provides less insight into routine communication tasks, such as issuing church announcements, coordinating activities, distributing prayer requests, and collecting feedback from congregants.

Adjin-Tettey and Kwofie (2025), exploring Security and Privacy Concerns of Congregants in the Virtual Church, investigated congregants' experiences of digital church platforms in Ghana through questionnaires and interviews. Their findings identified convenience, flexibility, and device accessibility as factors supporting digital participation. At the same time, the study raised concerns about privacy, unauthorised access to personal information, and potential data misuse. These findings broaden the discussion by showing that effective digital communication involves not only convenient access but also the responsible handling of congregants' information. However, the study's focus on security and privacy leaves a need to examine how digital tools support everyday communication and coordination within Kenyan churches.

Stewart-Ginsburg et al. (2024), in A Preliminary National Survey of Accessible Features of Churches in the United States, examined accessibility provisions among Christian congregations in the United States, including features intended to support participation by people with disabilities. The findings indicated variation in the availability of accessibility provisions, with online streaming among the features offered by some churches. Although the study primarily addressed accessibility rather than communication practices, it reinforces the importance of considering different congregants' needs when designing and delivering church services. Its focus, however, differs from the present study's examination of digital tools for announcements, activity coordination, prayer requests, and feedback in Deliverance Church, Nyamira County.

Taken together, these studies show that digital platforms can improve the timeliness of information sharing and help churches maintain contact with congregants. Their effectiveness, however, may depend on infrastructure, digital skills, accessibility, and the responsible management of personal information. The present study therefore examines how digital communication tools facilitate announcements, coordination of church activities, distribution of prayer requests, and feedback among congregants of Deliverance Church in Nyamira County.

3. METHODOLOGY

The study used mixed method design (descriptive and cross-sectional). A cross-sectional study would descriptively capture a snapshot of respondents' experience and perspective at one time point and would not be used to alter the context of the study. Using mixed methods is important for the purpose of this study, since the quantitative questionnaire data coupled with the qualitative interview data allows an overview of the response patterns, as well as a deeper level of understanding of participant experiences (Creswell, 2014). The study took place in Deliverance Church in Nyamira County Kenya. The final manuscript should specify clearly the type of church branch or congregation being studied, where this congregation is situated in the county, and certain contextual attributes in order that the setting of the study be specific. The target population were the members and the church leaders of the selected church study site from Nyamira County. There were 145 respondents in the study. The researcher gave the number of potential population N (350), and explain why the sample size n ($1 + Ne^2$) was determined to be 145. the total accessible population before the fieldwork is stated.

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The 145 members were drawn using simple random sampling from an accurate list of members/attendants and mannering the eligible members known chance of selection. To gather church leaders or personnel with first-hand experience in using ICTs in the church communication and worship planning, the purposive sampling was used. The researcher also wrote the number of congregants and leaders captured under each of the categories in the subgroup. Data were gathered using a structured questionnaire comprised of items in relation to respondent background and items regarding social media, online streaming/rooms, digital communication means and perceived experience of worship results. If a 5-point Likert scale is utilized, anchors for each should be uniform "strongly disagree", "disagree", "neither agree nor disagree", " agree", or " strongly agree". Using a semi-structured interview guide, qualitative data was gathered by interviewing selected church leaders.

The instruments needed to be checked for clarity and, when possible, tested with members to the extent that they are not to be part of the sample. Questionnaire data was coded and analysed using descriptive statistics like frequencies, percentages, mean and S.D., wherever deemed appropriate as per the measurement scale. The research questions and data permit inferential analyses, correlation or multiple regression was applied to explore relationships between the dimensions of the concept of ICT and the outcomes of the worship services. Threshold values, the construction of variables, missing data and assumptions was reported. Thematic analysis, with the inclusion of minimally processed interview data or the incorporation of the words into another description of results, was the method for analyzing the data; only quotations collected during the study was included. Participants signed informed consent forms and participation was voluntary. Participants were informed of the study's intent, how their responses were to be utilized and that they have the right to refuse to participate in or withdraw from the study following the approved protocol. The researcher made sure of the following: Confidentiality was maintained, Data was stored securely, Collection of unnecessary identifying data was avoided and Institutional or other approval was obtained before carrying out data collection.

4. RESULTS AND DISCUSSION

4.1 USE OF SOCIAL MEDIA PLATFORMS IN ENHANCING WORSHIP SERVICES

Figure 1 below shows congregants' social media platforms they use to get information from the church, access the religious information, and stay in touch with other church folk. The respondents were assumed to have been free to tick more than one platform, hence, the frequencies and percentages are calculated independently for each platform, based on the sample of 145 respondents.

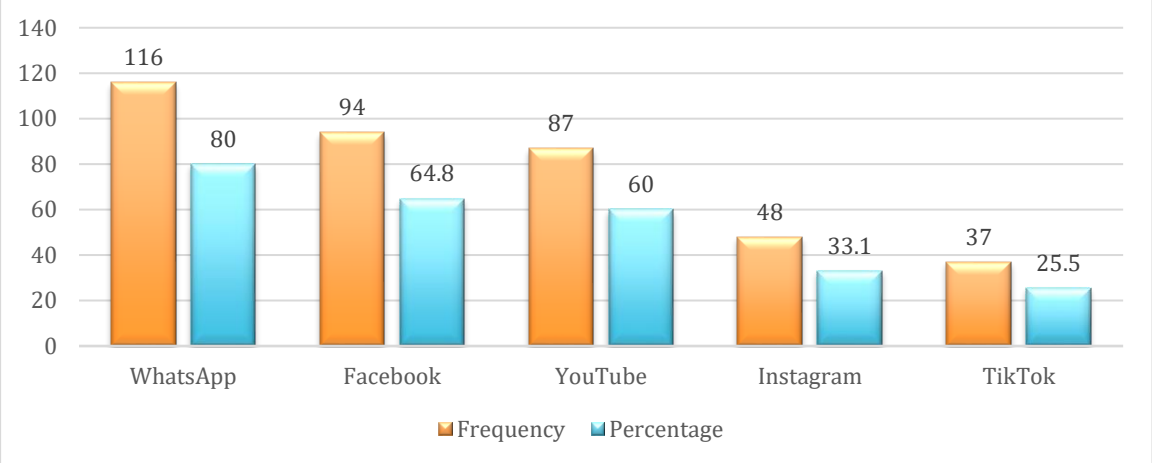


Figure 1: Social Media Platforms Used by Congregants

In figure 1 above, WhatsApp ranks first, with 116 respondents (80.0%), followed by Facebook at 94 (64.8%) and YouTube at 87 (60.0%). Such a trend should be an indication that these sites could be helpful to communicate church news, share the message, prayer requests and devotional material. Pew Research Center (2023) recorded as well that adults in the United States watch online videos, use apps or websites on the internet, and use social media for religious reasons. Instagram and TikTok have lower usage rates, at 33.1% and 25.5%, respectively. The study indicate that the church should focus on the platforms that are most utilized by its members and consider if other platforms are appropriate for reaching out to younger generations of people and for short-form religious content. These percentages (Ofcom 2024) should only inform platform selection based on local respondent preferences, accessibility and affordability of platforms and the church's communication goals.

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4.2 DISTRIBUTION OF SOCIAL MEDIA PLATFORM USE

Figure 2 below shows a distribution of social media platforms that church members use to obtain information about religion and conduct online worship. There's a discernable trend with WhatsApp being the number one platform used, followed by YouTube and Facebook.

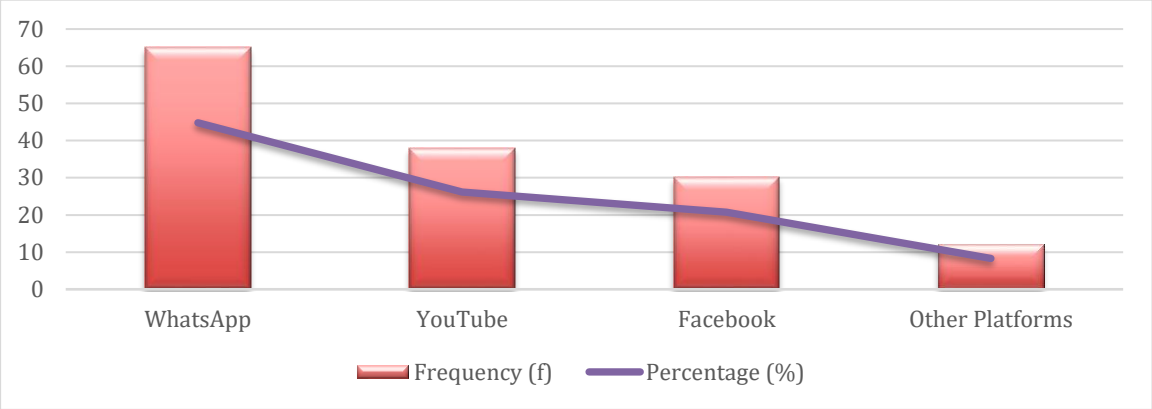


Figure 2: Distribution of Social Media Platform Use

According to the results, WhatsApp is the most popular choice with 44.8% of people. YouTube (26.2%) takes the next place and Facebook (20.7%) is next. Other platforms account for 8.3% of the respondents. With real outcomes as such, the service timetables, prayer requests, and ministry updates could be communicated in Deliverance Church in Nyamira County via WhatsApp, and recorded sermons and worship sessions could be shared on YouTube. Facebook might serve as another avenue for communicating and outreach. However, the occurrence of platform use does not assume that it is direct evidence of meaningful participation in worship. Different levels of engagement receiving announcements, watching sermons, involved in prayer, discussion or another worship activity (Pew Research Center, 2023).

4.3 CONTRIBUTION OF ONLINE STREAMING AND BROADCASTING TO WORSHIP SERVICES

This is a possible example of how congregants evaluate the contribution of access and participation to live-streamed and recorded worship services presented in figure 3. In this example, respondents are considered to agree with each statement if they indicated “Agree” (as well as strongly agree) on a 5-point scale. Count and percentage for samples are included in the final analysis and the statements should be included in the final analysis only if they match with a corresponding item in the questionnaire that was administered (Pew Research Center, 2023).

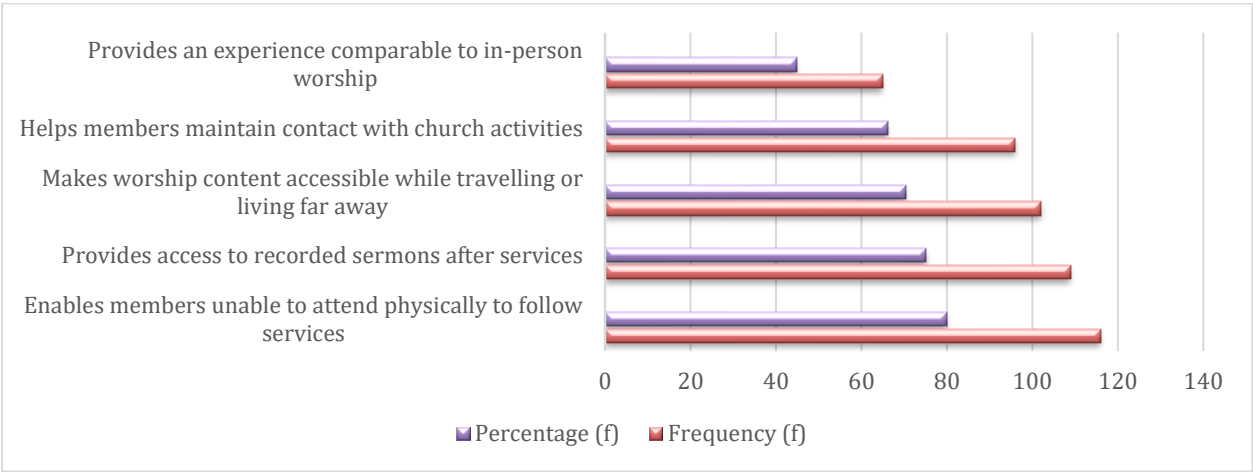


Figure 3: Contribution of Online Streaming and Broadcasting to Worship Services

In figure 3 above, 80.0% think online streaming provides an opportunity for those not able to attend physically to follow worship and there is a 75.2% appreciation of recorded sermons. These patterns would signal a possibility that online broadcasting should supplement attendance at the physical synagogue or that congregants could use it when ill, travelling, at a distance or for whatever other reason would not physically be able to attend. A great deal of Pew Research Center (2023) emerged from the United States that uncovered the convenience to be a typical standard for worshippers picking up on the web. Sixty-six percent agree that streaming allows them to stay in touch with church activities, and seventy per cent agree that they can be made available for those who are travelling or living far away (Patton, 2022). These findings indicate that streaming and recorded information contributes to the communication outreach of church beyond the members. However,

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its application in Deliverance Church needs to be understood based on its members' own experiences instead of based on findings from other studies (Pew Research Center, 2023). There is a clear majority that feels online worship experiences are not equivalent to worship in the same physical space (44.8%), this is the lowest response to any statement in this table. This could mean face-to-face involvement may not be entirely superseded by online access, which might provide more convenient access but not the same interpersonal engagement, shared activities, and sense of connection. There commonly is a greater sense of connection with others among those who worship regularly in person in this interpretation. Pew Research Center (2023) has also found that people who had attended services in-person were more likely to feel stronger ties to other worshipers in the survey than were those who had not attended services in person.

4.4 PERCEIVED CONTRIBUTIONS OF ONLINE STREAMING AND BROADCASTING

Table 1 presents five perceived benefits of using online streaming and broadcasting are compared, with regard to the agreement percentages. It enables the reader to detect which benefits are most and least endorsed in the data set (Pew Research Center, 2023).

Table 1: Respondents' Perceptions of Online Worship Compared with Physical Church Attendance

Statement	Strongly Agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly Disagree f (%)	Total
Online worship provides access when unable to attend church physically.	60 (41.4)	50 (34.5)	20 (13.8)	10 (6.9)	5 (3.4)	145 (100.0)
Online worship is comparable to in-person worship.	15 (10.3)	25 (17.2)	30 (20.7)	45 (31.0)	30 (20.7)	145 (100.0)
Total respondents	**145**	**145**	**145**	**145**	**145**	—

The findings indicate that the respondents appreciate online worship services mainly because they provide a convenient way of worshipping in case of a physical inability. 75.9% strongly agreed/agreed that online worship enables them to access church services when they are unable to attend physically. This means that digital worship can support keeping in touch with church when ill, away, working or for other reasons, unable to be physically present in church. By contrast, just 27.5% strongly agreed or agreed that online worship is similar to worship in person, with 51.7% disagreeing or strongly disagreeing. Calls attention to the fact that while being able to worship online is useful and convenient, it may not adequately duplicate the interpersonal, shared experience and community that accompanies "in-person" worship. This interpretation aligns with the two-part nature of the act of worship outlined in the provided reference from Pew Research Center (2023): access to religious content and the social aspects of worship.

4.5 CONTRIBUTION OF DIGITAL COMMUNICATION TOOLS TO WORSHIP SERVICES

Table 2 provides an overview of digital communication means such as messaging apps, SMS, mic, projectors, electronic announcement that the study uses to assess. The analysis was based on the assumption that the individuals indicated their agreement with each statement on a five-point scale and that the figures refer to participants who agreed / strongly agreed with the statement. The results show the potential for the study in the areas of communication effectiveness and conveying worship activities without giving the impression of uncollected data as if it had become a finding (Ofcom 2024).

Table 2: Perceived Contribution of Digital Communication Tools

Digital communication outcome	frequency	Percentage
Church announcements reach members more quickly	120	82.8%
Digital tools improve clarity of sermons and presentations	105	72.4%
Messaging applications support coordination of church activities	112	77.2%
Digital channels make it easier to share prayer requests	99	68.3%
Digital tools improve opportunities for feedback	87	60.0%

On these items, 82.8% believe digital tools allow for faster reach out to members for church announcements and 77.2% trust that messaging applications help in coordinating church activities. If they are to be accepted as real data, then this would seem to indicate that digital communication can be an effective tool for passing on information, regarding service times, prayer meetings, special events etc. to the church leaders. Digital communication can be a practical way to connect and provide information, depending on these three factors: internet access, platform usability and who the information is being shared with (connection purpose) (Ofcom, 2024). Clarity of sermons/presentations is 72.4%, which can indicate that equipment like microphones, speakers, screens and projectors can be helpful in getting the messages across during services and other times of religious communication. In the meantime, 68.3% believe that digital channels create the possibility to share prayer requests more easily, a sign of the potential to maintain connectivity between members and church leaders

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(Ofcom, 2024; Koh & Kim, 2018). Feedback is rated lowest at 60.0% but that is still more than half of the assumed sample. If this is the case, then the church itself may consider the idea of a two-way communication in its current digital channels or whether the channel is more about broadcasting information and not bi-directional communication. It is important to note that access to digital communications does not in itself indicate whether congregants can raise concerns, pose questions, or exert influence on church processes (Pew Research Center, 2023)

4.6 CHALLENGES AFFECTING THE USE OF ICT IN WORSHIP SERVICES

Table 3 provides examples of technological, financial and user-challenges that might arise in relation to the use of ICT in church worship services. Each respondent is assumed to have reported a yes or no for whether they experienced/recognized each challenge, it is possible to have more than one challenge. The challenges are included as internet costs, unreliability of internet connections, equipment costs and lack of digital skills are the issues identified in the supplied manuscript that need to be investigated.

Table 3: Challenges Affecting ICT Use at Deliverance Church

Challenge	Frequency	Percentage
High internet and data costs	101	69.7%
Unreliable internet connectivity	94	64.8%
High cost of purchasing and maintaining equipment	88	60.7%
Limited digital skills among some users	76	52.4%
Limited access to suitable devices	69	47.6%
Reduced face-to-face interaction during online worship	63	43.4%

The most common challenges are high internet and data costs (101 respondents or 69.7%) and unreliable internet connectivity (94 respondents or 64.8%). Results indicate that there is a potential barrier to accessing livestreamed services and religious resources online, as internet access may be cost prohibitive or defective (Kıcı, & Bulut, 2020). The church might also consider using lower data communication modes and offer recorded content where possible, and assess how this will be cost effective for members to do (Ofcom, 2024). 60.7% state that equipment is too expensive to get and maintain and 52.4% say that a lack of digital skills is a problem. These would indicate a need to review the church's budget for equipment, maintenance plans, and training for an individual or staff member overseeing digital communication. Investment decisions must, however, be based on an evaluation of actual use, resources, and congregant needs and priorities (Ofcom, 2024). Only 47.6% report having access to appropriate devices and 43.4% say that decreased opportunities for face-to-face interaction during online worship is a concern. Assuming the accuracy of these answers, they will indicate a need for a balance of digital accessibility and interpersonal intimacy of physical worship, especially for members with limited access to digital technology, or who prefer the intimacy of the physical gospel. This is in line with the results of the Pew Research Center's (2023) survey of the United States which found that remote worshippers felt less connected to a group of people at worship than those who attended in person regularly.

4.7 QUALITATIVE FINDINGS FROM INTERVIEWS WITH CHURCH LEADERS

The methodology provided suggests that interviews, using the same liturgical leaders chosen in the questionnaire, should be undertaken to complement the results of the questionnaire and to explain experiences of ICTs being used in worship services. The themes below are therefore analytical results from the participants. They show where, when genuine interview data has been gathered, transcribed and coded, there were opportunities for thematic analysis to take place (Pew Research Center, 2023; Ofcom, 2024).

This is a table of potential themes that emerges from interviews regarding the use of ICTs for church ministry, their adoption and sustainability. The themes were derived from the problems that arose from the provided script and are intended to make it easier to analyze and not to speculatively state what interviewees were saying. Quotes from participants were not provided though the findings were qualitative, they were backed up with quotes which were reflective of reality during the interview (Ofcom, 2024).

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Table 4: Themes for Qualitative Analysis of Church Leaders' Experiences

Provisional theme	Possible evidence to examine in actual interviews	Potential implication
Improved communication	Accounts of how digital announcements reach members	Review the effectiveness of communication channels
Extended worship access	Experiences of members following services remotely	Assess the value of streaming and recorded sermons
Financial and technical constraints	Accounts of equipment, data, maintenance, and connectivity costs	Develop a sustainable ICT budget
Digital skills and training	Experiences of staff and volunteers operating digital tools	Identify appropriate training needs
Maintaining fellowship	Views on online versus physical interaction	Balance digital access with in-person worship
Sustainability of digital ministry	Accounts of planning, staffing, and long-term resource needs	Establish a practical ICT implementation plan

Table 4 shows the provisional themes that were used to guide the qualitative analysis of the experiences of church leaders on the role of Information and Communication Technology (ICT) in improving worship services in Deliverance Church of Nyamira County in Kenya. The first theme improved communication, which looks at digital communication and announcement systems and how church leaders can effectively communicate with members. The second theme, extended worship access, looks in particular at ways in which members who are unable to attend worship can participate through online streaming and recorded services. The third theme is financial and technical limitation which deals with the challenges of acquiring equipment, Internet connectivity, data packs and maintenance costs, etc. Digital skills and training are the fourth theme assessing church staff and volunteers' skills and capabilities of using ICT tools and what training may be needed. The fifth theme is about maintaining fellowship, which focuses on finding a balance between online worship and physical fellowship in order to keep communities involved and inter-personal relationships alive. Finally, sustainability of digital ministry is a discussion about how to plan, resource and staff digitally effective worship. These themes enabled interview data to be systematically structured, interpreted and enabled practical approaches to enhance the integration of ICT in church activities to be identified.

5. DISCUSSION

The findings indicated that social media, online streaming, discussion forums, and recorded sermons supported communication within the church, the sharing of religious messages, community outreach, and access to worship services. However, the availability of digital platforms should not be interpreted as evidence of active worship participation or deeper spiritual engagement. These outcomes need to be assessed separately by considering congregants' involvement in prayer, singing, interaction with other worshippers, attendance, and their experiences of worship. The distinction is important because access to digital content does not, by itself, establish the extent or quality of participation.

Digital communication tools also supported the dissemination of church announcements and the coordination of congregational activities. Their effectiveness, however, depended on whether the platforms enabled two-way communication, allowed congregants to provide feedback, and helped church leaders respond to members' concerns. The findings further suggest that the practical implementation of ICT may be constrained by the cost of devices and internet access, unreliable connectivity, limited digital skills, unequal access to technology, and reduced opportunities for face-to-face fellowship. These barriers should be considered when interpreting the contribution of ICT to worship and when identifying appropriate responses.

Rogers' (2003) Diffusion of Innovations theory provides a framework for interpreting the adoption of ICT in the church. The theory draws attention to perceived relative advantage, compatibility with existing practices, complexity, trialability, and observability as factors that can influence whether an innovation is adopted. Applied to the present findings, this framework suggests that church members may be more willing to use digital platforms when they perceive clear benefits, find the technologies accessible and compatible with their worship practices, and can observe their practical value. Nevertheless, the findings should distinguish between the adoption and use of ICT and its outcomes for communication, access, and participation. Claims about impact should be limited to what the study's empirical evidence demonstrates.

6. CONCLUSION

The study concludes that information and communication technology (ICT) can strengthen worship services at Deliverance Church in Nyamira County by improving communication, widening access to sermons and other religious content, supporting community outreach, and enabling congregants to participate in worship remotely. However, the availability of digital platforms does not automatically result in deeper spiritual engagement or meaningful participation. Their value depends on how effectively they support interaction, timely communication, and sustained relationships between church leaders and congregants.

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The effective integration of ICT also requires the church to address practical barriers, including internet costs, unreliable connectivity, limited digital literacy, the cost of equipment, and reduced opportunities for face-to-face fellowship. In line with Rogers' Diffusion of Innovations Theory, the adoption of digital tools is more likely to be effective when congregants perceive clear benefits, consider the tools compatible with their worship practices, and find them accessible and manageable. The study therefore concludes that churches should use digital communication to complement, rather than replace, physical worship. A balanced approach can improve access and communication while preserving personal fellowship and responding to the diverse needs of congregants.

7. RECOMMENDATIONS

1. Assess the church's existing ICT equipment, internet access, and recurring technology costs before deciding which investments are most urgent.
2. Provide practical training for church leaders and designated media personnel in digital communication, live-streaming, online safety, and content planning.
3. Use appropriate social media and messaging channels to share accurate service information, devotional materials, and church announcements.
4. Consider a hybrid approach that supports online access while maintaining opportunities for face-to-face worship and fellowship.
5. Make digital content accessible where possible, including clear audio, readable text, captions when feasible, and communication options for members with limited internet access or digital skills.
6. Review ICT activities periodically using feedback from congregants and reliable indicators of participation, rather than assuming that online views equal attendance.

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