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Perception of Agricultural Extension Personnel on the Use of Music in Disseminating Agricultural Information in Ondo State Nigeria

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Abstract

The study examined the preferences and perceptions of agricultural extension personnel on the use of music as a tool for agricultural information dissemination. Forty-four out of 50 extension agents in Ondo state were randomly selected for the study. Chi-square and the Pearson Product Moment Correlation were used to analyse data. The study revealed that all (100.0%) respondents accepted the use of music as a tool for agro-information dissemination. The music genre most preferred was gospel (63.64%). All (100.0%) respondents also had a favourable disposition towards its use. Only work cadre was significantly associated with the perception of the use of music for agro-information dissemination ($\chi^2 = 13.036$). In designing music-based messages, consideration should be given to the incorporation of a variety of genres or styles to appeal to a broader audience.

Introduction

In the realm of agricultural extension, the dynamic nature of technology adoption continues to reshape traditional approaches to information dissemination. Traditionally, agricultural information has been disseminated through informal interpersonal verbal communication by extension agents, during individual visits, group meetings and on mass media (Iwuchukwu, et al (2023). Printed materials (words, pictures and diagrams) are also utilized to complement informal interpersonal verbal communication approaches. Setting agro-information in music has however been minimally explored, except in traditional folk songs. A musical piece for cocoa promotion was done in 2014 by D'bang and other notable artists and research revealed that many retained the information therein. This reveals the ultimate

success of the information disseminated. As societies evolve, it becomes imperative to explore innovative methods that bridge the gap between agricultural experts and farmers, ensuring the seamless transfer of vital information.

The utilization of music as a communicative tool in disseminating agricultural information introduces a compelling dimension to the ongoing discourse on technology adoption in the agricultural sector. In recent years, the concept of technology adoption in agricultural extension has expanded beyond conventional digital platforms to encompass diverse communication modes (Xu et al, 2023).

According to Peralta (2021), music is an essential aspect of all human civilizations and can emotionally, morally, and culturally affect society, when people from one culture exchange music with each other, they gain valuable insight into another way of life. Music also plays a great role in social bonding in times of conflict when other lines of communication prove to be challenging (Peralta 2021).

Music can influence behaviour and promote positive social change through its emotional, cognitive, and communal aspects. Its versatility as a medium for expression and communication makes it a valuable tool in various contexts, from personal well-being to social activism (Rabinowitch, 2020).

Incorporating music into agricultural extension programmes makes the information more accessible and enjoyable. It can bridge the gap between formal information dissemination and the cultural context of the target audience, making agricultural extension more effective and impactful.

The exploration of music as a medium for disseminating agricultural information is not merely a deviation from established norms but rather an exploration of synergies between tradition and innovation. As technology increasingly permeates every facet of our lives, understanding the preferences of extension professionals becomes crucial in tailoring interventions that resonate with local contexts and cultural nuances. This study, rooted in the nexus of music and technology, seeks to shed light on the multifaceted preferences and perceptions of Agricultural Extension Personnel in Ondo, Nigeria. With its rich cultural tapestry and agrarian significance, it serves as a captivating backdrop for understanding how these professionals engage with unconventional channels for conveying essential agricultural knowledge. By examining their perceptions towards leveraging music-based messages, an understanding of how such innovative strategies align with or challenge the overarching trend of technology adoption in agricultural extension services can be achieved. While the study specifically explores the use of music, it indirectly touches upon the integration of communication technology into agricultural extension. Music dissemination might involve various technological tools such as audio recording, online platforms, or even mobile applications, contributing to the adoption of technology in agricultural extension.

The study's focus on music does not preclude the possibility of combining it with other modalities, such as visual aids or mobile applications. Understanding preferences for various modes of communication can guide the development of multimodal approaches that integrate technology. While the primary focus of the study is on the use of music, it provides valuable insights into the broader landscape of technology adoption in agricultural extension. The findings contribute to understanding the dynamics of technology integration, the role of cultural factors, and

the preferences of extension personnel—all of which are crucial aspects of successfully introducing and sustaining technological innovations in agriculture. This study, set against the backdrop of Ondo's agricultural landscape, aims to contribute insights into the practical implications of adopting music-based messages in the digital era. Agricultural extension personnel serve as the crucial link between research findings, technological advancements, and farmers on the ground. Understanding their perspectives on unconventional communication tools, such as music-based messages, is essential for designing strategies that resonate with local contexts and foster more impactful information delivery.

The study specifically examined the following objectives;

1. preferences of agricultural extension personnel on the use of music as a tool for agro-information dissemination; and
2. perceptions of agricultural extension personnel on the use of music as a tool for agro-information dissemination.

The study hypothesized that at a 0.05 level of significance, there is no significant relationship between the socioeconomic characteristics of agricultural extension personnel and their perceptions of music as a tool for agro-information dissemination.

Methodology

Ondo State is situated between latitude 6° 15' N and longitude 5° 45' E. The state has eighteen (18) local governments, a population of about 3,640,877 and a land area of 15,500 km² (Central Intelligence Agency, 2023). It has a vibrant musical heritage with various genres reflecting its diverse cultural influences. Common music genres in the state include; the Highlife, Juju, Apala, Gospel, Sakara, Fuji and various traditional folk music.

The population of the study consisted of all agricultural extension personnel in Ondo State. There are fifty (50) extension personnel in Ondo State Nigeria (Odeyemi, Personal Communication, 2023). A simple random sampling of 88% was used to select 44 agricultural extension personnel for this study. Primary data used for the study were obtained with the aid of a structured e-questionnaire on the Kobo toolbox. A focus group discussion was also conducted with the respondents.

The dependent variables of this study were the preference and perception of extension personnel on the use of music for agro-information dissemination. The perception was measured using a 5-point Likert-type scale of strongly agree, agree, strongly disagree, and undecided, which had values of 5, 4, 3, 2 and 1 respectively. Preferences were measured using "yes" or "no" responses which were labelled 1 and 0 respectively. Chi-square and the Pearson Product Moment Correlation were used to test the study hypotheses.

Results and Discussions

Music Genres Preferences of Respondents

Figure 1 reveals that the majority of respondents (63.64%) indicated a preference for gospel songs. This suggests a prevalent affinity for religious or spiritual music within the agricultural extension personnel surveyed. The dominance of gospel songs could

be a crucial factor when incorporating music-based messages for agro-information dissemination.

Afrojuju is the second most preferred genre, with 20.45% of respondents choosing it. Afrojuju, a fusion of Afrobeat and Juju music, represents a cultural and contemporary musical style. The significant preference for Afrojuju highlights the importance of considering locally relevant music genres in communication strategies. While gospel songs and Afrojuju are prominent, the presence of other genres like Reggae, Fuji, and Hip Hop suggests diversity in musical preferences among the respondents.

Recognizing this diversity is essential for creating inclusive and engaging music-based messages that resonate with a broad audience. Music-based messages should be tailored to align with the dominant preference for Gospel songs and Afrojuju. This can enhance the effectiveness of the communication strategy. Nevertheless, consideration should be given to the incorporation of local and cultural elements in the music-based messages. This approach can enhance the connection with the target audience as it resonates with their cultural orientations. This is in line with the findings of Chirinos-Espin (2021) that local artists are the most able to create content that resonates with their communities due to cultural appeal, therefore receivers positively evaluate and accept it.

This implies that, by incorporating cultural elements, music can help bridge the gap between abstract information and personal significance, leading to a more profound reception, understanding and retention of the agro-information. Furthermore, since the Gospel songs and Afrojuju genres have distinct rhythms, beats, and lyrical styles that are familiar and appealing to these audiences, using these genres will help capture attention and may encourage the audience to listen more carefully to the content of the messages (Song et al, 2018). This is because when people enjoy the medium, they are more likely to engage with the content thereby enhancing learning outcomes.

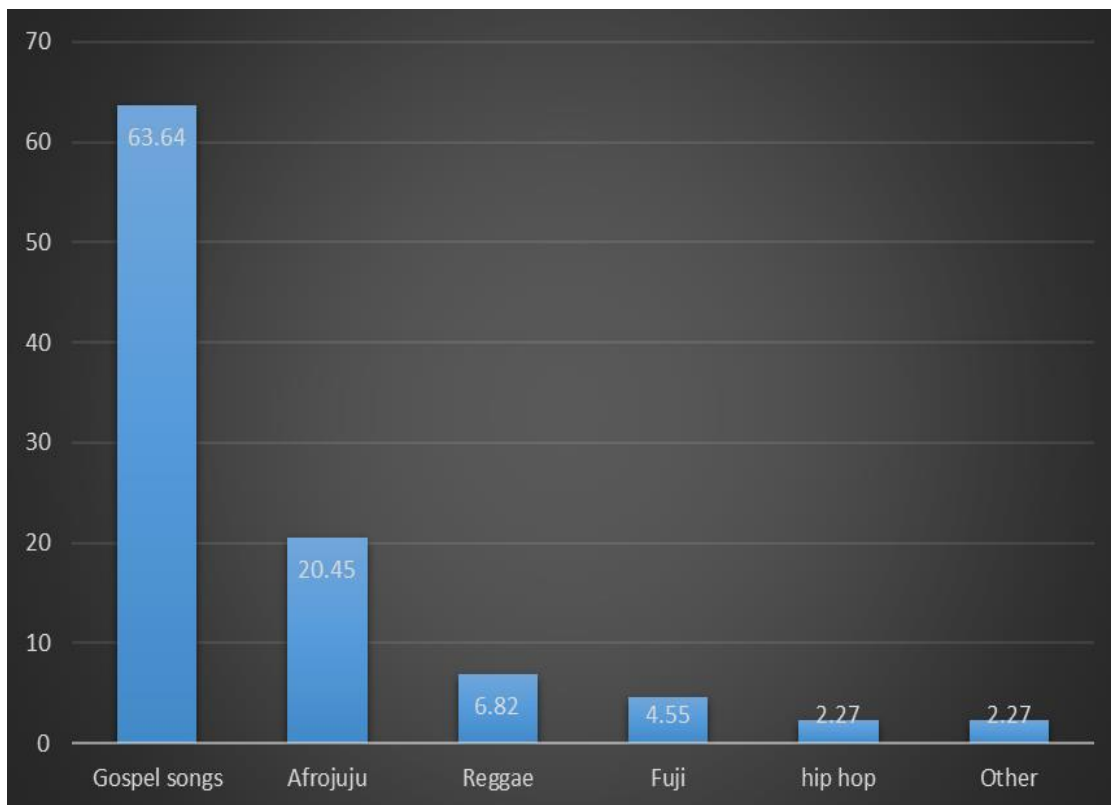


Figure 1: Music genres preferences of respondents
Source: Field Survey, 2023

Acceptance of Music as a Medium for Agro-information Dissemination

The unanimous acceptance of music as a medium for agro-information dissemination as revealed in Table 1, suggests that it is a universally appealing and well-received communication tool among the agricultural extension personnel surveyed. This high level of acceptance is a positive indicator for the potential effectiveness of using music in conveying agricultural information. The study has revealed that music holds cultural significance within the community, making it an appropriate and well-understood medium for communication. The cultural relevance of music can enhance its impact in conveying messages related to agriculture, as it aligns with the cultural preferences of the target audience. This is buttressed by the results of the Centre for Agriculture and Bioscience International’s (CABI) music video content on soybeans in Ghana, where incorporating agro messages in music with visuals made the farmers easily disposed to the information as it used their local language and acceptable genre of music from popular musicians (CABI, 2020).

This is because music has always been an integral part of different cultures and societies, and leveraging its cultural relevance can have a powerful impact on agriculture information dissemination. Agricultural communications can effectively reach and resonate with the target audience by incorporating local musical elements and languages. Additionally, the use of music can create a more engaging and memorable experience, leading to better retention of information.

This implies that music is more than just entertainment within the community; it plays an integral role in cultural expression and communication. Thus music can be used to enhance reception and retention of agro-messages. Also, the acceptability of sharing agricultural knowledge through music can help create and reinforce

community support systems that are vital in the adoption of new practices and technologies. Music can thus serve as a more approachable and enjoyable entry point to learning about agriculture, especially for individuals who might otherwise be difficult to engage through conventional educational methods.

Music also can evoke emotions and engage individuals on a deeper level. The widespread acceptance suggests that agricultural extension personnel recognize the potential of music to create emotional connections and enhance engagement with agro-information. The 100 percent acceptance implies that music is perceived as an inclusive and accessible medium. It may be reaching a broad audience within the agricultural community, including individuals with diverse backgrounds and preferences. However, while acceptance is unanimous, it is important to recognize that individuals may have different preferences for specific genres or styles of music. Understanding these preferences can further refine the design of music-based messages to cater to diverse tastes.

The high acceptance rate has practical implications for the implementation of agro-information dissemination strategies. It suggests that incorporating music into extension programs is likely to be well-received and embraced by the agricultural community. This is in line with the call for creativity in developing and delivering Agricultural extension programs (African (Agricultural Technology Foundation, 2021)). This was practically evidenced by the CABI music program on soybeans, which engaged popular local musicians in disseminating agro-messages to the rural populace (CABI, 2020). This can be through the creation of catchy and memorable jingles. By composing jingles that convey important agricultural practices or information, these can become ingrained in the minds of the listeners, serving as a constant reminder of the key messages. Additionally, incorporating local musical styles and languages can further enhance the relatability and accessibility of the information being conveyed. This approach ensures that the content remains engaging and resonates with the cultural identity of the target audience, facilitating a deeper connection with the agricultural community (Qian, 2023).

This will increase the potential for community involvement and ownership of the learning process, reinforcing the application of knowledge. It will also enhance easier accessibility for diverse populations within the agricultural community, including those with varying levels of literacy and education. Furthermore, the use of music in agro-information dissemination could contribute to more robust and community-centred agricultural extension programs. This is in line with the community support and collaborations received by CABI during the community shows of the Soybean music video project. Many women and children attended the physical shows and many also viewed them on YouTube and Facebook (CABI, 2020)

Experience in Utilizing Music for Agro-Information Dissemination

Table 1 also reveals that the majority of respondents (97.73%) have used music to disseminate agricultural information. This indicates a positive engagement with music as a communication tool among agricultural extension agents in the study. Respondents who have used music likely have some level of experience and familiarity with incorporating music into their communication strategies. This experience can influence their perspectives on the effectiveness and practicality of

using music for agro-information dissemination. They may have insights and knowledge about the challenges and successes associated with this approach. Their experiences can be valuable for knowledge sharing within the community of agricultural extension agents. The influence of these experiences on their perception and intention to use music is corroborated by Fastercapital (2024)) assertion that participants' perceptions of their past behaviour often influenced their decisions to repeat the behaviour. The high adoption rate among extension agents indicates that the use of music is not only popular but also considered an effective method of communication.

This view is also corroborated by Izen et al. (2023), who argue that, although speech is highly effective for exchanging ideas, music serves as a potent communicative medium. Music possesses a unique ability to unite people and convey a wide range of emotions through shared experiences of music-making and listening in various everyday contexts. This positive engagement likely indicates successful past experiences with music as a vehicle for education and outreach (Fastercapital, 2024). Since a majority of the respondents have utilized music for agro-information dissemination, they possess real-world insights into how music can be integrated effectively into communication strategies. This experience is important because it provides a practical understanding of what works and what does not in various agricultural communities. Ultimately, the extension agents' accumulated experiences with music can be shared with their peers, helping to establish a set of best practices. This peer learning can improve the overall quality and effectiveness of agricultural information dissemination programs (Amadu, 2022). With practical experience, agents are also likely familiar with potential challenges, such as language barriers, message distortion, or technological constraints. This knowledge can be crucial in planning and executing future communication campaigns with music.

Table 1: Acceptance and experience in utilizing music for agro-information dissemination

Responses	Percentage (n = 44)
Acceptance of music as a medium for Agro-information dissemination	
Yes	100.00
Experience in utilizing music for agro-Information dissemination	
Yes	97.73

Source: Field Survey, 2023

Composers of Agricultural Songs Used by Respondents

The majority of songs containing agricultural messages as shown in Figure 3 were composed by the Agricultural Development Programme (ADP) (81.82%). This indicates a significant role played by organized agricultural entities in creating music-based messages for agro-information dissemination. The other category represents a small but notable percentage (9.09%), suggesting the involvement of diverse entities or individuals beyond the ADP group in composing agricultural messages in songs.

A percentage of respondents (6.82%) reported composing songs with agricultural messages. This indicates a level of individual initiative and creativity among agricultural extension personnel in contributing to the development of music-based content. A small percentage (2.27%) of songs are composed by farmers. This suggests that farmers also understand the potential of musicalizing agro-information and could also contribute to the creation of music-based messages, reflecting the potential for community engagement in communication efforts. This corroborates Gutterman's position that involving beneficiaries of any intervention in the development of solutions will lead to sustainable and tailor-made solutions (Gutterman, 2020). Thus music developed will be in line with the preferences of the audience. The dominance of the Agricultural Development Programme in composing songs indicates that organized, institutional efforts are crucial in driving the creation of music-based agro-information. It demonstrates the ADP's recognition of music as a valuable tool for communication and its commitment to leveraging this medium.

The presence of songs composed by entities other than the ADP, though smaller in percentage, implies that there is room for various actors to contribute to this endeavour. It shows a diverse ecosystem of content creators and the potential for expanding the range of voices in agricultural communication. Furthermore, the fact that a percentage of extension personnel are composing songs illustrates their willingness to engage innovatively with their work, personal initiative, and their ability to create tailored content that reflects their understanding of the communities they serve. The composition of songs by farmers, albeit a small percentage, reflects an important bottom-up approach to communication. It suggests that farmers are not only recipients of information but can be active creators and disseminators of knowledge, capitalizing on their experiences. The creation of music based information thus confirms that agricultural extension strategies are evolving to be more creative and adaptive to local contexts and preferences, potentially leading to more effective and sustained message dissemination.

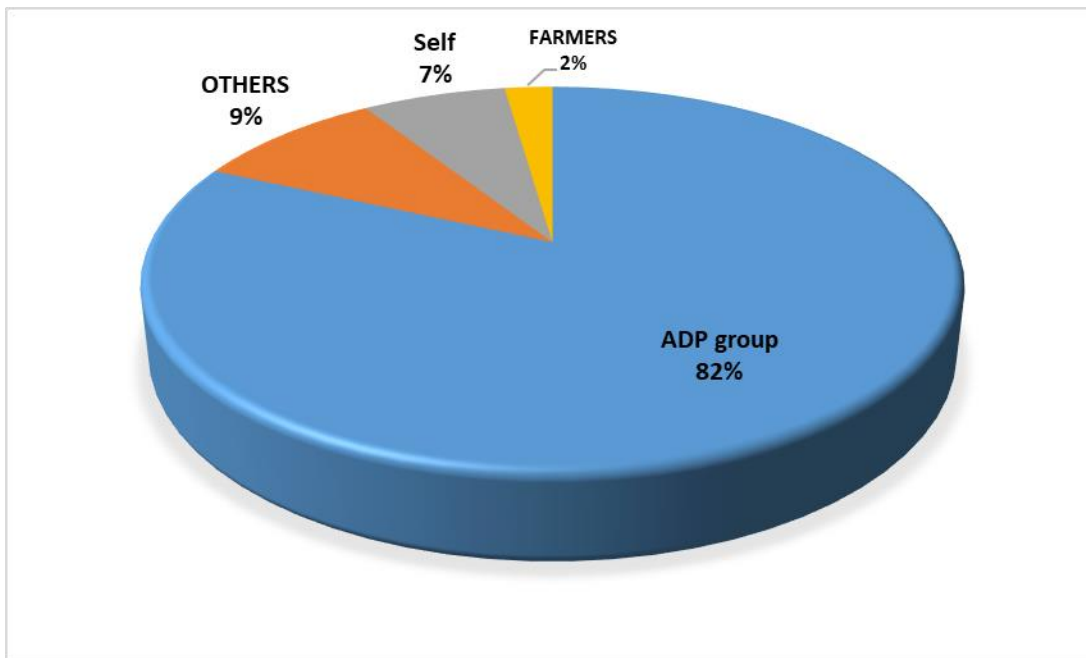


Figure 2: Composers of agricultural songs used by respondents
Source: Field Survey, 2023

Perception of Agricultural Extension Agents on the Utilization of Music as a Tool for Agro-information Dissemination

Table 2, presents the perception of agricultural agents regarding the effectiveness of music as a tool for agro-information dissemination, with mean response scores on a scale of 1 to 5. The high mean score for all the statements which were above the mean score of 3.5, indicates a strong agreement among agricultural agents that music can serve as an effective tool in their communication strategies. It confirms the perceived efficacy of music in conveying agricultural messages to their target audience (CABI, 2020). It also reveals the belief of agricultural agents that music has the potential to enhance the memorability of agricultural information, making it more impactful for farmers. Responses also reflect a positive perception that music can contribute to increasing farmers' engagement with agricultural information (CABI, 2020).

Furthermore, Table 2 reveals a high consensus among agricultural agents that music can serve as a valuable tool in overcoming cultural barriers to effective information dissemination and that it can create a more relaxed atmosphere indicating a recognition of the potential for a positive emotional impact on the audience. Their perception also indicates confidence among agricultural agents in the versatility of music as a medium for disseminating a broad spectrum of agricultural information and that it can improve communication between extension personnel and farmers. Music is also perceived to be excellent in generating interest and enthusiasm among farmers for adopting agricultural innovations. The respondents also believe that music has the potential to influence the preferences of farmers regarding the type of agricultural information they receive. The overall positive perception scores reflect a strong belief among agricultural agents in the efficacy and versatility of music as a tool for agro-information dissemination. The findings suggest a willingness to explore

and incorporate music into their communication strategies for improved engagement and impact.

Table 2: Perception of agricultural extension agents on the utilization of music as a tool for agro-information dissemination

Perception Statements on Music as a tool for Agro-information dissemination	Mean	SD
Music can be effectively used to convey an agricultural message	4.7	0.49
Music can help to make agricultural information more memorable for farmers	4.6	0.54
Music can help to increase farmers' engagement with agricultural information	4.4	0.55
Music can help to overcome cultural barriers to the dissemination of agricultural information	4.6	0.51
Using music to disseminate agricultural information will be more relaxing	4.5	0.55
Music can be used to effectively disseminate a wide range of agricultural information topics	4.5	0.48
Music can improve communication between extension personnel and farmers	4.7	0.51
Music can create interest in agricultural innovation among farmers	4.5	0.50
Music has the potential to influence farmers' preferences for agricultural information	4.6	0.46

Source: Field Survey, 2023

Correlation between Socio-economic Characteristics and the Perception of the Use of Music as a Tool for Agro-Information Dissemination

Table 3 reveals that the correlation between age and the perception of respondents on the use of music as a tool for agro-information dissemination was very weak and not statistically significant ($r = 0.028$). This suggests that there is no clear linear relationship between age and the overall perception scores regarding the effectiveness of music in agro-information dissemination. Years of experience in agricultural extension also had no significant relationship with the use of music as a tool for agro-information dissemination ($r = -0.089$).

Table 3: Correlation between socio-economic characteristics of respondents and perception of music as a tool for agro-information dissemination

Variable	r-value
Age	0.028
Experience in agricultural extension	-0.089

* $P \leq 0.05$. Source: Field Survey, 2023

Association between Socio-economic Characteristics and the Perception of the Use of Music as a Tool for Agro-Information Dissemination

Table 4 reveals a significant association between respondents' work cadre and their perceptions of music as a tool for agro-information dissemination. This significant association indicates meaningful differences in perceptions or preferences related to music-based agro-information dissemination among various occupational categories. Supporting this finding, Kulkarni (2023) affirms that perception is a lens through which individuals interpret and make sense of the world around them, and it plays a pivotal role in shaping human behaviour. This gives rise to individual differences which explains why some people embrace change while others fear it.

This may warrant further investigation to understand specific needs or challenges faced by different work cadres. All other socioeconomic characteristics were not significantly associated with their perceptions of music as a tool for agro-information dissemination. This implies that they will not in any way influence the possibility of the use of music as a tool for agro-information dissemination. This is however contrary to Jain's position that personal characteristics, motives, interests, past experiences, and expectations influence an individual's preferences (Jain, 2021). The lack of significant association between music perception and other socioeconomic characteristics may however imply that music has a universal appeal that transcends these variables. This universality is corroborated by the work of Mehr (2019) in their study of over 4,709 song performances from 60 traditionally living societies and a smaller collection of 118 recorded songs from 86 societies. Music was thus empirically proved to be universal. Therefore, it has the potential to be broadly used as a tool for agro-information dissemination without being affected by factors such as age, gender, or literacy levels. Furthermore, since certain work cadres are more receptive to music as a communication tool, there might be a need for targeted training and resources to develop skills necessary for creating and utilizing music for agro-information dissemination effectively.

Table 4: Association between Socio-economic Characteristics and the Perception of the Use of Music as a Tool for Agro-Information Dissemination

Variable	Calculated Chi-square value	df
Gender	3.105	1
Religion	0.150	1
Education level	4.140	3
Work Cadre	13.036*	3
Preferred Music Genre	2.353	5

*P ≤ 0.05. Source: Field Survey, 2023

Conclusions and Recommendations

Agricultural extension personnel exhibited a very high favourable interest in the utilization of music as a tool for agro-information dissemination. Various genres were indicated but gospel was the most listened to. Respondents generally perceive music positively as a tool for conveying agricultural messages, making information memorable, and potentially overcoming cultural barriers.

Communication strategies should be tailored to accommodate different levels of listenership. In designing music-based messages, consideration should be given to the incorporation of a variety of genres or styles to appeal to a broader audience. Engage with community members to understand their preferences and encourage the use of the preferred channels.

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