Digital Transformation in Community Radio: Extending the Reach of Social Inclusion Efforts at Mathare FM, Nairobi, Kenya

Stephen Ndirangu Maina[1]
Kennedy Njasi Simiyu[2]

[1]mainahsteve02@gmail.com
[2]ksimiyu@kibu.ac.ke

[1]Mt Kenya University, [2]Kibabii University, [1,2]Kenya

……….…

ABSTRACT

This study explores the potential of Mathare FM, a community radio station in Nairobi's Mathare slum, to enhance social inclusion through digital transformation. The main objectives were to assess how digital platforms can expand Mathare FM's role in promoting social inclusion and to explore the perceptions of listeners and staff regarding the integration of these tools. Purposive sampling method was employed to select participants who could provide relevant insights regarding the station's social inclusion impact for Mathare residents. Grounded in Diffusion of Innovations Theory and Uses and Gratifications Theory, this research analyses the benefits of incorporating social media, mobile applications, and online streaming into the station's operations. Data collected from the questionnaires were analysed using SPSS to perform descriptive and inferential statistical analyses. A descriptive research approach was used, combining questionnaires and interviews with a sample size of 400 members. Findings indicate that Mathare FM plays a significant role in promoting social inclusion, with 53% of respondents reporting high satisfaction with the station's community engagement efforts. Notably, 76% of respondents believe that digital platforms would facilitate greater engagement for marginalized groups, and 73% expressed a willingness to integrate these tools with traditional broadcasting. The study recommends developing a comprehensive digital strategy, enhancing social media engagement, and leveraging mobile applications to increase accessibility and interaction within the community.

Keywords: Community Radio Station, Digital Transformation, Social Inclusion
……….…

I. INTRODUCTION

Globally, community radio has emerged as a powerful tool for promoting social inclusion, especially in marginalized communities with limited access to mainstream media channels. Community radio stations provide platforms that empower communities by promoting local voices, enhancing access to information, and fostering cultural expression, which are crucial for social inclusion (Fraser & Estrada, 2001). The digital transformation within media has created new opportunities for community radio to extend its reach and impact through digital platforms, enabling real-time interaction, broader accessibility, and more personalized content delivery (Gumucio-Dagron, 2001). Although digital tools can facilitate a shift towards more participatory media, limited resources and technological challenges remain significant obstacles for community radio stations, particularly in underserved areas (Cammaerts, 2015).

In Africa, community radio stations have become essential for addressing information gaps and promoting inclusivity, particularly in rural and informal urban settlements. These stations provide unique access to localized content in native languages, resonating with communities that are often underserved by national media (Siemering et al., 2002). With the spread of mobile technology across the continent, integrating digital platforms like social media and mobile applications has become more feasible, offering new avenues for African community radio stations to engage their audiences more effectively. In Nigeria, for instance, the adoption of social media has allowed community radio stations to improve real-time feedback and interaction with listeners, amplifying t\he voices of marginalized communities and empowering local populations (Ojebode & Adegbola, 2020). However, such digital integration is often hindered by limited internet access and digital literacy, highlighting the need for tailored approaches to digital transformation in African contexts.

Mathare FM, a community radio station based in Nairobi's Mathare slum, exemplifies the critical role of community radio in fostering social inclusion in marginalized urban communities. Mathare slum is one of Nairobi's largest informal settlements, characterized by high poverty rates, limited infrastructure, and scarce access to mainstream media (Mathenge, 2013). As one of the primary sources of information, education, and entertainment for Mathare's residents, Mathare FM provides content that is directly relevant to the local community, including news, music, and educational programming in local languages. However, with increasing digitization, there is an opportunity

for Mathare FM to broaden its impact through digital platforms. Integrating digital tools like social media, mobile applications, and online streaming could enable the station to reach younger, tech-savvy audiences and create more dynamic, two-way interactions with the community, enhancing social inclusion (Okaka, 2013). However, challenges remain in access to digital technology and digital literacy within Mathare, which must be addressed to realize the potential of digital integration fully (Nyamnjoh, 2015).

The potential of digital platforms to enhance social inclusion is well-documented, with studies showing that digital tools can empower marginalized communities by enabling them to communicate their experiences and challenges more effectively (Cammaerts, 2015). In the case of Mathare FM, digital transformation offers opportunities to extend the station's social inclusion efforts by making content more accessible and fostering greater community engagement. Digital tools could provide Mathare residents, especially those with limited access to traditional radio, with new ways to participate in programming, offer feedback, and engage in community discussions. By focusing on Mathare FM, this study aims to assess the perceptions of Mathare FM listeners and staff regarding the potential of digital tools to expand the station's reach and amplify its social inclusion efforts. Through this research, we hope to contribute to the broader understanding of how digital transformation can enhance the effectiveness of community radio in promoting social inclusion in marginalized settings.

1.1 Statement of the Problem

The Mathare slum, home to over 200,000 residents, faces significant challenges related to social exclusion, inadequate access to information, and limited opportunities for civic participation (United Nations Human Settlements Programme [UN-Habitat], 2020). Pavarala and Malik (2021) emphasize the role of community radio in promoting social cohesion and giving voice to marginalized groups; however, they often overlook the integration of digital tools that could further enhance this impact. Similarly, Dunaway (2018) highlighted the importance of digital radio stations in addressing local cultural issues, yet the specific application of these findings within the unique socio-economic context of Mathare remains underexplored.

Mathare FM has played a pivotal role in addressing social exclusion and fostering community engagement by providing a platform for local voices. However, with the increasing digitization of media, there is a pressing need to investigate how Mathare FM can effectively leverage digital tools to expand its reach and impact on social inclusion. Cammaerts (2015) illustrates the potential of digital platforms in facilitating political and social activism among marginalized communities, but the specific strategies and challenges faced by community radio stations in informal settlements like Mathare require further exploration.

The study sought to address the gap in understanding how digital platforms can be integrated into community radio to promote broader and more inclusive social participation within marginalized communities. By focusing on Mathare FM, the study aimed to uncover practical approaches to utilizing digital transformation to enhance social inclusion efforts, ultimately contributing to the broader discourse on community media and social change.

1.2 Research Objectives
i.   To assess how digital platforms can enhance the role of Mathare FM in promoting social inclusion within the Mathare slum.
ii. To explore the perception of Mathare FM listeners and staff on the potential of digital tools to expand the station's impact on marginalized groups.

1.3 Research Questions
i.   How can digital platforms enhance the role of Mathare FM in promoting social inclusion within the Mathare slum?
ii. What are the perceptions of Mathare FM listeners and staff regarding the station's ability to use digital tools to broaden its impact on marginalized groups?

II. LITERATURE REVIEW

2.1 Theoretical Review
2.1.1 Diffusion of Innovations Theory
Developed by Everett Rogers in 1962, Diffusion of Innovations Theory explains how new ideas, technologies, and practices spread within a society or from one society to another (Kaminski, 2011). It identifies key factors that influence the adoption of innovations, such as the innovation's perceived benefits, compatibility with existing values, simplicity, trialability, and observable results (Dearing & Cox, 2018).

Application to Mathare FM and Digital Transformation: This theory would be useful in understanding how digital tools and platforms (such as social media, mobile apps, and online streaming) are being adopted by Mathare FM and its listeners (Aizstrauta et al., 2015). The theory can explain the factors that drive or hinder the community's acceptance and use of these digital innovations in accessing the radio station's content (Atkin et al., 2018). The study could explore the stages of adoption among the Mathare FM audience and how digital platforms can enhance the station's reach, engagement, and social inclusion efforts by making community radio content more accessible, interactive, and responsive to community needs.

2.1.2 Uses and Gratifications Theory

Uses and Gratifications Theory (UGT), proposed by Elihu Katz, Jay G. Blumler, and Michael Gurevitch in the 1970s (Ruggiero, 2000). It focuses on how individuals actively seek out media to satisfy specific needs or gratifications, such as information, entertainment, personal identity, integration, and social interaction (Whiting & Williams, 2013). This theory shifts the focus from what media does to people, to what people do with media, emphasizing user agency.

Application to Mathare FM's Digital Transformation: UGT is relevant in understanding how Mathare FM listeners use digital platforms to engage with the radio station and how this interaction fulfils their needs. As Mathare FM expands its digital presence, this theory can help analyse why and how different segments of the Mathare community engage with digital content (Camilleri & Falzon, 2021). For instance, some listeners may use digital platforms for information on social issues, while others might seek entertainment or opportunities for social interaction. By applying UGT, the research can uncover the types of content most appealing to the audience in digital formats, how listeners interact with digital tools (like podcasts, online discussions, or social media), and how these platforms promote social inclusion by offering new opportunities for engagement.

Combining Diffusion of Innovations and Uses and Gratifications Theory would provide a robust framework to explore the digital transformation of Mathare FM. Diffusion of Innovations explains how and why the community adopts digital tools, while Uses and Gratifications Theory investigates how listeners use these tools to meet their needs (Lin & Chen, 2017). Together, these theories would illuminate the processes driving digital adoption at Mathare FM and how its digital platforms extend the reach of social inclusion efforts by engaging the community in new, interactive ways.

2.2 Empirical Review

Numerous studies highlight the crucial role of community radio in fostering social inclusion by amplifying the voices of marginalized groups and celebrating local culture. Fraser and Estrada (2001) argue that community radio stations serve as instruments for social change, providing platforms for grassroots participation and empowering local communities. Similarly, Gumucio-Dagron (2001) emphasizes the importance of community radio in giving a voice to the voiceless, especially in underserved regions where mainstream media often neglects local issues.

The integration of digital media in community radio has emerged as a significant factor in promoting social inclusion. For instance, Cammaerts (2015) illustrated how digital platforms in Belgium create spaces for marginalized communities to voice their concerns and access vital information, thus facilitating political and social activism. In Latin America, Dunaway (2018) found that digital radio stations play a pivotal role in promoting social inclusion by addressing local cultural and social issues through their programming, demonstrating that digital tools can break down geographical barriers and allow remote communities to engage in media production.

In the context of Mathare FM, these findings suggest that digital platforms—such as social media and mobile applications can significantly enhance inclusivity (Nguyen, 2022). These tools allow residents, particularly marginalized groups, to engage with the station in real-time, share their stories, and participate in community discussions, fostering a sense of belonging and representation.

Research by Pavarala and Malik (2021) underscores the importance of local radio stations in promoting social cohesion in Africa by ensuring diverse voices are included in public discourse. Their study indicates that community radio stations act as critical information hubs, particularly where access to other media is limited. By integrating digital platforms, Mathare FM can expand its reach, making information more accessible and encouraging greater participation from marginalized communities.

Digital transformation has notably influenced community radio operations, enhancing audience engagement. Ojebode and Adegbola (2020) highlighted that integrating digital platforms like social media has increased participation and interaction with listeners in Nigeria, allowing them to provide real-time feedback and engage with content. Similarly, Thussu (2019) found that community radio in India leveraged digital platforms to broadcast culturally relevant content and connect with rural communities, thereby broadening their audience and enhancing programming dynamism.

In Mathare, Okaka (2013) explored how local radio stations, including Mathare FM, foster social inclusion by promoting dialogue among residents. The study noted Mathare FM's pivotal role in connecting community members through localized content that addresses their specific needs and challenges. However, it also identified the potential for digital tools to enhance listener engagement and interaction further.

Despite the benefits of digital transformation, community radio stations encounter several challenges in adopting these technologies. Nyamnjoh (2015) pointed out that issues such as digital illiteracy and unequal access to technology in South Africa can limit the effectiveness of digital platforms in community radios. This indicates that while digital tools can extend the reach of stations like Mathare FM, infrastructural challenges—like internet penetration and access to digital devices—could hinder full participation among certain community segments. Salter (2020) further corroborated this by finding that rural community radio stations in Australia faced technical challenges, including low internet speeds and limited digital skills among listeners. These findings underscore the necessity for digital literacy programs and affordable internet access to ensure that Mathare FM can fully realize its potential in using digital platforms to foster social inclusion.

III. METHODOLOGY

3.1 Study Area: Mathare, Nairobi, Kenya

Mathare is one of the oldest and largest informal settlements in Nairobi, Kenya, characterized by high population density and diverse socio-economic backgrounds. It is home to an estimated 200,000 residents who face significant challenges, including poverty, inadequate housing, limited access to basic services, and unemployment (UN-Habitat, 2020). The community comprises various ethnic groups, creating a rich cultural tapestry yet also highlighting the need for social cohesion and inclusivity.

Within this context, Mathare FM operates as a vital community radio station, established to serve the needs of the local population. The station aims to provide a platform for residents to express their views, share their experiences, and participate in discussions that affect their lives. By focusing on local issues, Mathare FM plays a crucial role in promoting social inclusion and community empowerment, particularly among marginalized groups, such as women, youth, and informal workers.

The digital transformation of Mathare FM is particularly significant in enhancing its outreach and engagement. The integration of digital platforms—such as social media, mobile applications, and online streaming—has enabled the station to connect more effectively with its audience, facilitating real-time interaction and feedback. This shift not only broadens the station's reach but also encourages active participation from the community, allowing residents to share their stories and engage in discussions on pertinent issues such as health, education, and governance.

However, Mathare faces infrastructural challenges, including limited access to reliable internet and digital literacy issues, which can hinder full participation in these digital initiatives. Therefore, this study explores how Mathare FM can leverage digital transformation to enhance its social inclusion efforts, identify potential barriers to engagement, and propose strategies to overcome these challenges.

3.2 Research Design

This study employed a descriptive research approach, combining both qualitative and quantitative approaches to gather comprehensive data on the impact of Mathare FM's digital transformation on social inclusion. Questionnaires were distributed to Mathare FM listeners, while in-depth interviews were conducted with the station's staff to gain insight into the role of digital platforms in enhancing community engagement.

3.3 Target Population and Sample Size

The target population for this study consists of residents of Mathare slum in Nairobi, Kenya, particularly those who are regular listeners of Mathare FM. The target population also includes key stakeholders such as Mathare FM staff, local leaders, and community representatives who play a role in shaping the community's socio-economic and cultural environment. The population of Mathare slum is approximately 200,000 people, and the sample will be drawn from a cross-section of this population, considering different age groups, genders, and socio-economic backgrounds to ensure comprehensive representation (UN-Habitat, 2020). A sample size of 400 listeners was determined using Yamane's formula, ensuring a 95% confidence level. Additionally, 15 Mathare FM staff members participated in in-depth interviews. The study employed purposive sampling to select respondents based on their engagement with Mathare FM and familiarity with the station's programming.

$$n = \frac{N}{1+N(e)^2}$$

Where:

N = Total population;
n = the sample size;
ε = error term.
N= 200,000

ε = 0.05

$$n = \frac{200000}{1+200000(0.05)^2}$$

n = 399.22
Sample size = 400

3.4 Data Analysis

Data collected from the questionnaires were analysed using SPSS to perform descriptive and inferential statistical analyses. Qualitative data from interviews were analysed thematically, identifying key trends and patterns related to the station's use of digital platforms to promote social inclusion.

IV. FINDINGS & DISCUSSIONS

4.1 Response Rate

The prepared questionnaires were 400, which were distributed to the sampled participants. Out of the 400 questionnaires, 250 were filled and returned, resulting in a 62.5% response rate. This response rate meets the threshold of over 50% for viable descriptive analysis. The responses were adequate for statistical analysis, offering insights into the demographics of Mathare FM listeners, particularly in terms of gender, age, level of education, digital literacy, and access to technology.
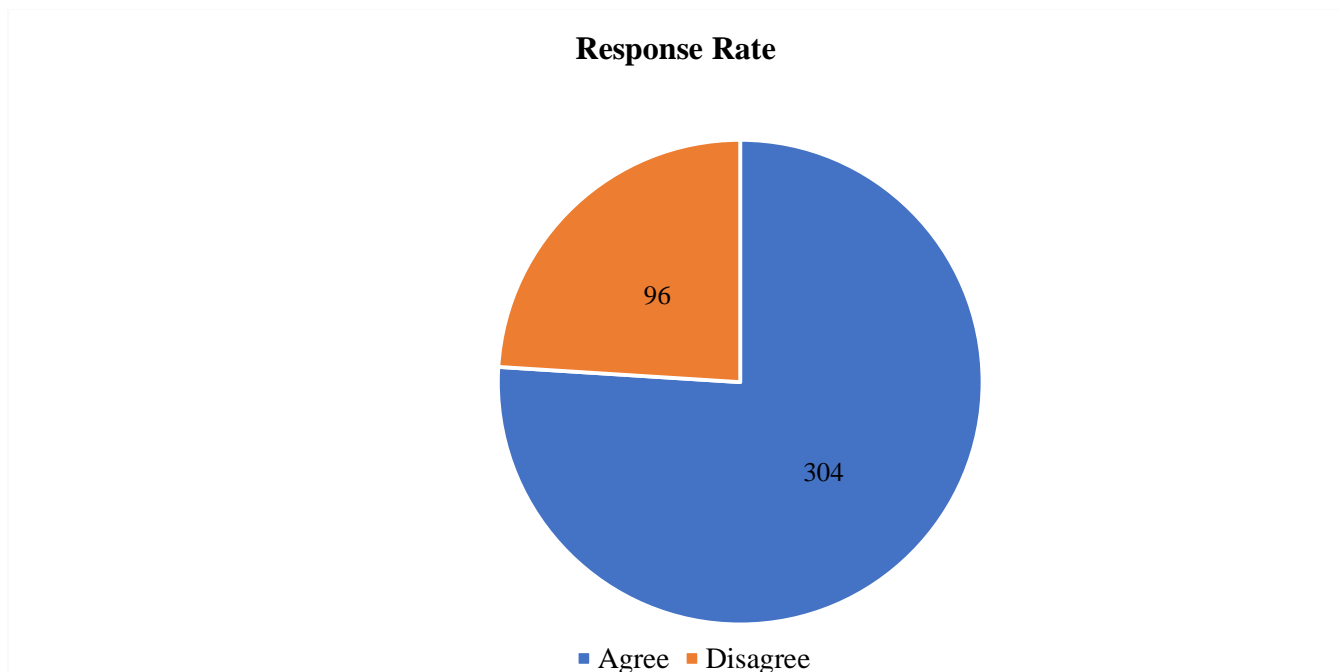

Figure 1
Response Rate

4.2 Demographic Characteristics of Respondents

The demographic data of the respondents include key variables such as gender, age, education level, digital literacy, and access to technology. These characteristics provide an overview of the population engaging with Mathare FM and their readiness to embrace digital platforms.

4.2.1 Gender

Of the 250 respondents, 140 were male (56%) and 110 were female (44%). This relatively even gender distribution reflects a balanced engagement with Mathare FM's content, indicating that the station appeals equally to both men and women in the community. Such gender balance provides Mathare FM with a broad audience base for its social inclusion efforts.
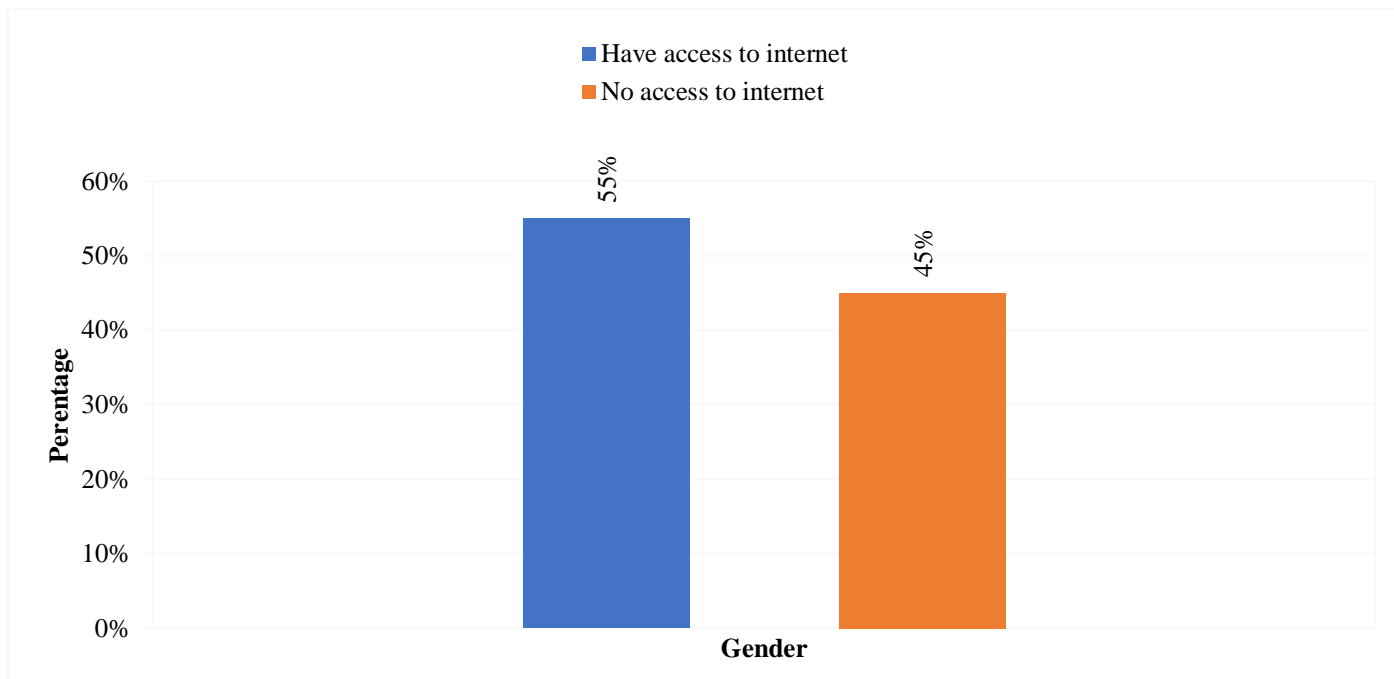

Figure 2
Gender

4.2.2 Age

The majority, 55%, were between 30 and 50 years old, while 25% were between 20 and 30 years old. The remaining 20% of respondents were 50 years and older. This age distribution shows that adults form the bulk of Mathare FM's audience, which suggests that the station's content resonates more with mature listeners who are likely to be more invested in community affairs and social inclusion. Engaging more youth may be an area for improvement, especially with the integration of digital platforms.

Table 1
Age

Age (years)		
20-30	30-50	50 and above
25%	55%	20%

4.2.3 Level of Education

About 65% had completed secondary school, 20% had completed primary school, and 15% had tertiary education. The relatively high proportion of secondary school graduates highlights an audience with a moderate level of education, suggesting that Mathare FM's programming should remain accessible but could benefit from additional educational content to further engage listeners.

Table 2
Highest Level of Education

Education		
Primary	**Secondary**	**Tertiary**
15%	65%	15%

4.2.4 Digital Literacy

Approximately 45% of respondents indicated a low level of digital literacy, while 30% had moderate digital literacy, and 25% had a high level of digital literacy. These figures indicate that while there is a growing segment of the population familiar with digital tools, a significant portion may struggle to engage fully with digital platforms. This highlights the need for digital literacy programs to help more listeners transition to Mathare FM's potential digital offerings.
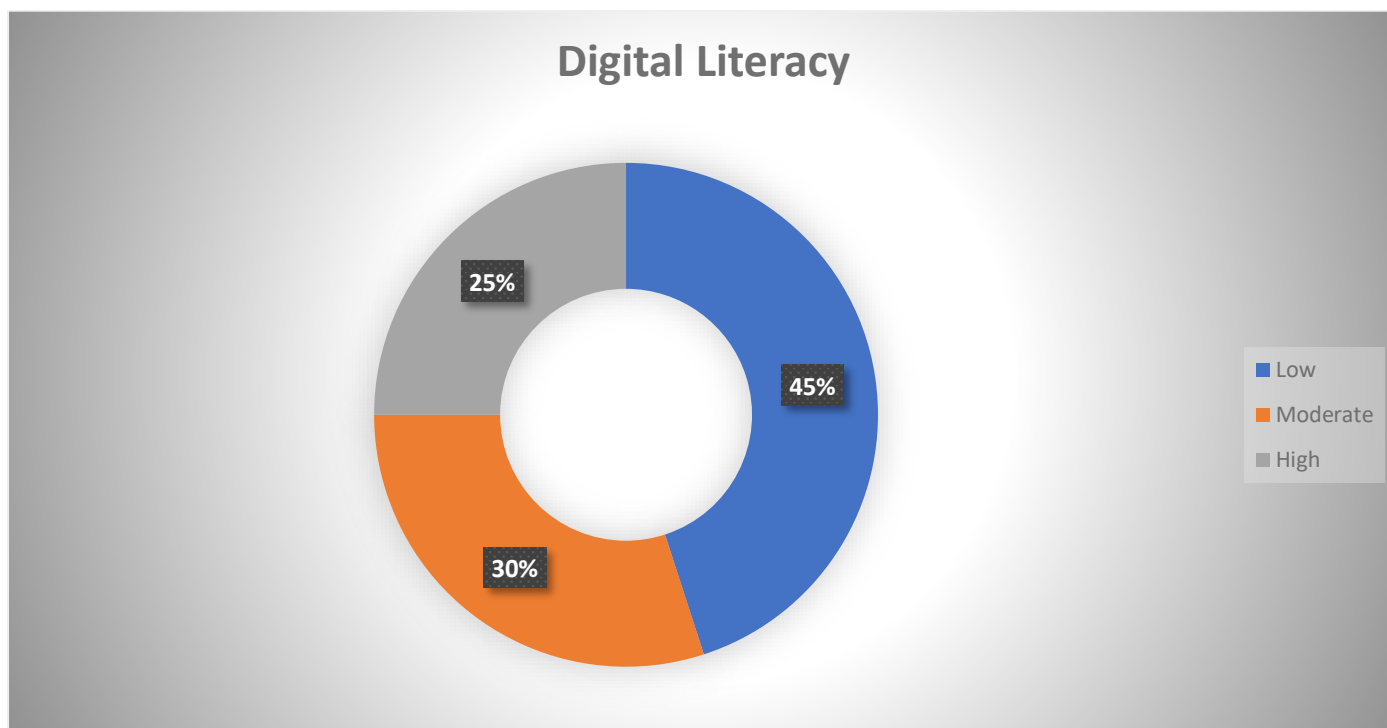

Figure 3
Digital Literacy

4.2.5 Access to Technology

The findings indicate a diverse level of technology access among Mathare FM's audience. With 60% of respondents owning basic mobile phones and 35% using smartphones, there is significant engagement potential through mobile-compatible platforms. However, only 5% of respondents reported having access to computers, indicating limited reach through desktop-based internet services. This suggests that Mathare FM should prioritize mobile-first strategies, particularly focusing on tools accessible via basic mobile phones and smartphones, like SMS services, WhatsApp, and social media apps. The data on internet accessibility reveals that 55% of respondents regularly access the internet, primarily via mobile phones or internet cafés, underscoring the necessity for Mathare FM to design content that is mobile-friendly and accessible through commonly used applications. Limited access to advanced technology and desktop internet may pose challenges in creating equitable digital engagement. Therefore, adapting content formats that cater to mobile technology, such as audio snippets, text-based updates, and easily shareable content, could expand the station's reach effectively.

Access to the internet among Mathare FM's audience shows promising but moderate potential for digital outreach, with 55% of respondents indicating regular internet access. This internet access is primarily through mobile devices and internet cafés, which means internet availability, may be inconsistent and depend on factors like data affordability and internet quality. Despite these limitations, the reported internet access rate signifies an opportunity for Mathare FM to reach its audience more effectively by providing digital content that requires minimal data usage, such as text posts, low-data audio streaming, and downloadable podcasts. However, disparities in internet accessibility suggest that Mathare FM should also consider alternative engagement strategies, such as SMS-based updates or offline media (e.g., downloadable content) to reach the remaining 45% who have limited or no internet access. Tailoring content to these access constraints would ensure more comprehensive social inclusion.
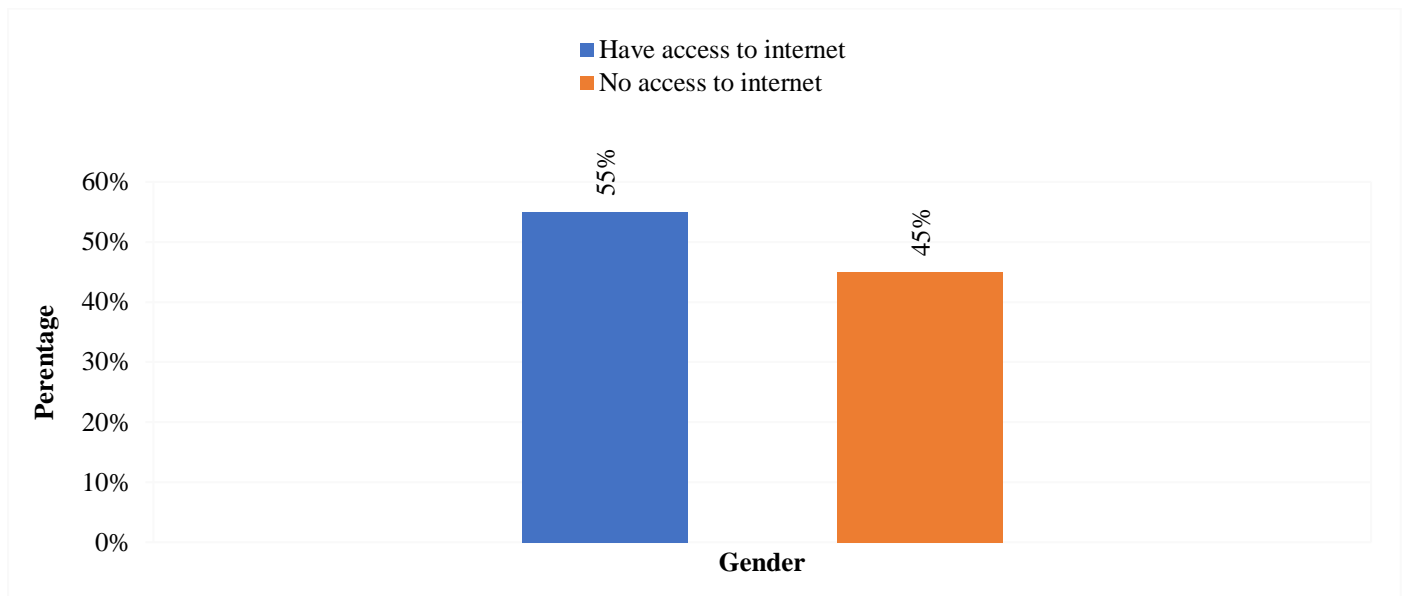
Figure 4
Access to Internet

4.3 Digital Platforms in Enhancing the Role of Mathare FM in Promoting Social Inclusion

The findings highlight that Mathare FM is instrumental in fostering social inclusion within the Mathare community by providing a platform where listeners feel heard, represented, and empowered. A significant 53% of respondents expressed strong satisfaction with the station's efforts in enhancing community engagement, while another 39% were satisfied, showcasing widespread approval. Listeners especially valued Mathare FM's focus on broadcasting local news and stories, celebrating cultural heritage, and offering various community participation opportunities. The station's traditional radio format has established a strong foundation for social inclusion by serving as an accessible medium where marginalized voices can air their concerns and share experiences unique to Mathare.

Despite these successes, findings reveal that integrating digital platforms could greatly expand Mathare FM's inclusivity efforts, especially by catering to those who may be less reachable through traditional radio alone. Approximately 73% of respondents indicated enthusiasm for combining traditional broadcasting with digital tools, such as social media, podcasts, and mobile apps. The use of social platforms like Facebook and Twitter by some listeners already demonstrates the desire for a more interactive, two-way communication model. Respondents highlighted that a more consistent and interactive digital presence could foster an environment where listeners feel continuously engaged with Mathare FM and actively contribute to discussions, increasing the station's impact on community dialogue.
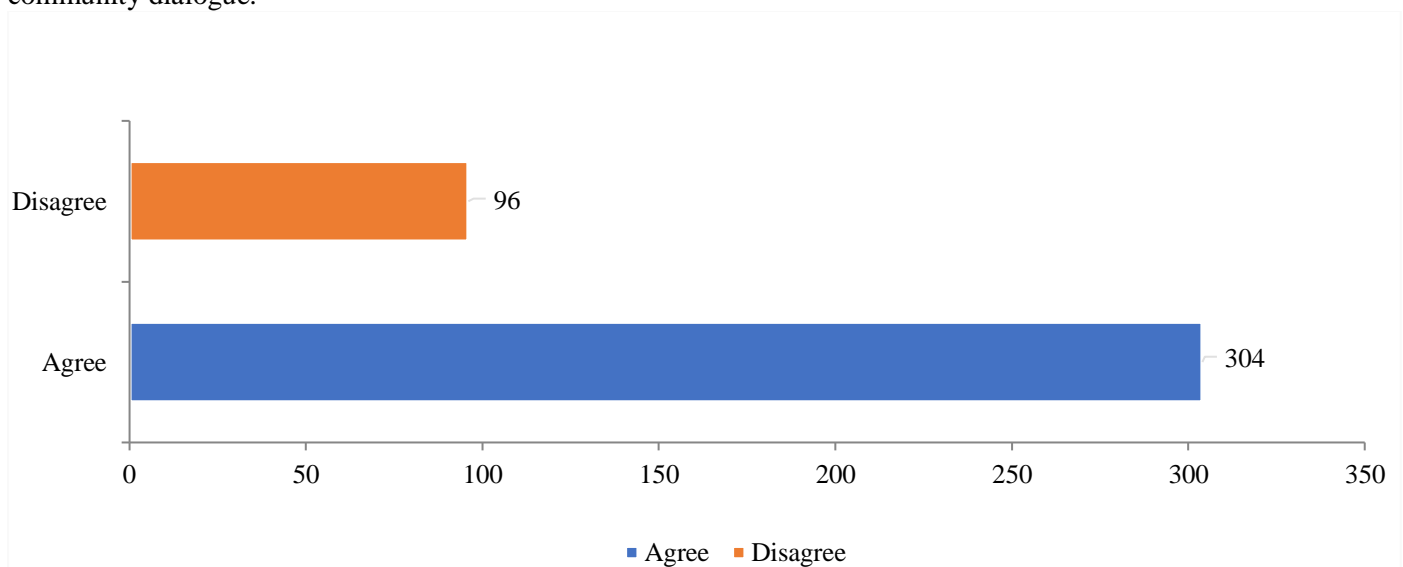

Figure 5
Acceptance to Integration with Digital Platforms

Interviews with Mathare FM staff underscored the importance of digital platforms in extending the station's reach, particularly for younger listeners who are highly active online. Digital tools, such as live streaming and archives of past programs, could attract audiences who may otherwise miss live broadcasts due to time constraints or logistical barriers. The ability to revisit recorded programs would be especially valuable for educational segments, local issue updates, and community announcements. Staff further noted that digital platforms would enable real-time listener feedback, which could significantly improve engagement by allowing Mathare FM to respond to audience needs and preferences promptly. This type of immediate interaction could enhance the station's role in promoting social inclusion by fostering a more dynamic relationship between Mathare FM and its audience, making the station an even more integral part of the community's daily life.

4.4 Potential of Digital Platforms in Expanding Mathare FM's Reach

The study findings reveal a strong belief among Mathare FM listeners and staff in the potential of digital platforms to broaden the station's reach and deepen its impact on social inclusion. An overwhelming 76% of respondents agreed that integrating social media and mobile applications could greatly enhance the station's accessibility, particularly for marginalized groups. By utilizing digital tools, the station could make it easier for these groups to engage, share experiences, and interact with Mathare FM on their own terms. This expanded reach would be especially beneficial to listeners who may lack consistent access to traditional radio due to time constraints, financial limitations, or geographical barriers within the Mathare community.

Interviewees pointed to the flexibility offered by digital platforms as a significant advantage for Mathare FM. Features such as on-demand listening, which allows users to access content at any time, and a broader reach facilitated by social media and mobile apps, could help dismantle barriers to engagement for listeners who may not tune in during scheduled broadcasts. This flexibility also empowers listeners by allowing them to access information, cultural programming, and social discussions at their convenience, fostering greater inclusion and a sense of agency.
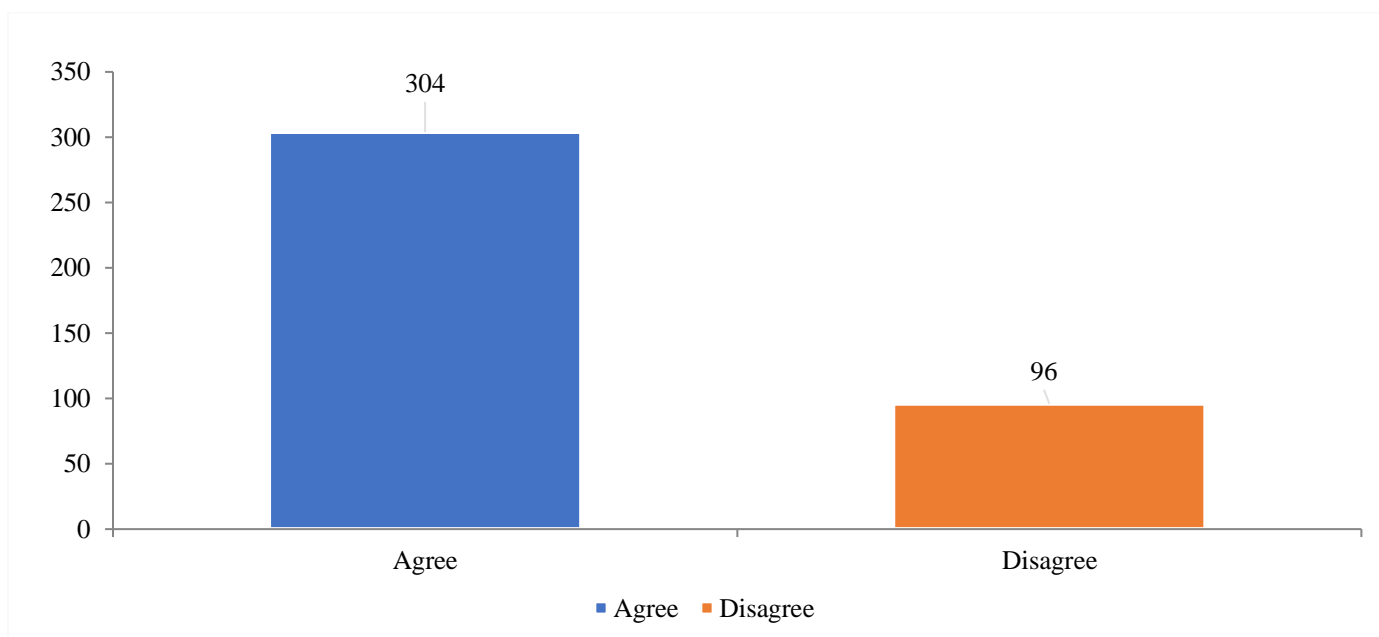

Figure 6
Potential of Digital Platforms to Expand Mathare FM's Reach

Respondents emphasized that for digital expansion to be successful, it must prioritize language and cultural relevance. They strongly supported the idea of maintaining local languages and culturally relatable content in the station's digital offerings. Staff highlighted that digital platform could provide an opportunity to engage with Mathare residents who might feel intimidated by live radio shows or constrained by time. By creating digital avenues for these community members to voice their opinions, Mathare FM could further amplify its impact on social inclusion by ensuring even the most marginalized voices are heard. This digital engagement could also play a critical role in raising awareness about social issues, rights, and local opportunities, directly aligning with the station's mission.

The study also found that digital platforms such as social media, online streaming, and mobile apps could facilitate real-time interaction between the station and its audience. This capacity for instant feedback and dialogue could strengthen Mathare FM's bond with listeners, making it possible for the station to respond dynamically to

community needs and evolving issues. Staff members noted, however, that for digital integration to reach its full potential, there is a need for a more comprehensive strategy that goes beyond initial social media presence. Developing such a strategy could involve investing in mobile-friendly content, regular digital engagement training for staff, and setting clear objectives for community interaction. By building a solid digital foundation, Mathare FM can use these tools not only to extend its reach but also to deepen its role as a vital platform for social inclusion within Mathare.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The digital transformation of Mathare FM presents a unique opportunity to enhance the station's impact on social inclusion within the Mathare slum. By leveraging social media, live streaming, podcasting, and mobile applications, the station can extend its reach, increase community engagement, and ensure that marginalized voices are represented more effectively. While the transition to digital platforms presents challenges, the long-term benefits, including increased accessibility and participation, are likely to outweigh the initial costs. Mathare FM has the potential to serve as a model for other community radio stations seeking to remain relevant in the digital age. The study highlights the importance of Mathare FM in promoting social inclusion in the Mathare slum and emphasizes the potential of digital transformation to enhance this role. By leveraging digital platforms, Mathare FM can reach a wider audience, facilitate greater listener engagement, and promote more dynamic interactions within the community.

5.2 Recommendations

Recommendations include the development of a comprehensive digital strategy, expanding local content, and intensifying community engagement efforts. This shift towards digital media must be accompanied by a strong community outreach strategy to ensure that residents are aware of these new platforms and are empowered to use them effectively. The integration of digital platforms with traditional radio broadcasting offers Mathare FM the chance to evolve into a multi-platform community hub that fosters deeper engagement and broader representation. Further research should explore the long-term impact of digital tools on community radio stations and their role in promoting social inclusion.

REFERENCES

Aizstrauta, D., Ginters, E., & Eroles, M. A. P. (2015). Applying theory of diffusion of innovations to evaluate technology acceptance and sustainability. *Procedia Computer Science, 43*, 69-77.

Atkin, D. J., Hunt, D. S., & Lin, C. A. (2018). Diffusion theory in the new media environment: Toward an integrated technology adoption model. In *Advances in foundational mass communication theories* (pp. 225-252). Routledge.

Camilleri, M. A., & Falzon, L. (2021). Understanding motivations to use online streaming services: Integrating the technology acceptance model (TAM) and the uses and gratifications theory (UGT). *Spanish Journal of Marketing-ESIC, 25*(2), 217-238.

Cammaerts, B. (2015). The mediation of insurgent politics. *International Journal of Communication, 9*, 1-21.

Dearing, J. W., & Cox, J. G. (2018). Diffusion of innovations theory, principles, and practice. *Health Affairs, 37*(2), 183-190.

Dunaway, D. (2018). *Community Radio at the Crossroads: Digital Media and Social Inclusion in Latin America*. Palgrave Macmillan.

Fraser, C., & Estrada, S. R. (2001). *Community Radio Handbook*. UNESCO, New Delhi.

Gumucio-Dagron, A. (2001). *Making Waves: Stories of Participatory Communication for Social Change*. Rockefeller Foundation.

Kaminski, J. (2011). Diffusion of innovation theory. *Canadian Journal of Nursing Informatics, 6*(2), 1-6.

Lin, H. F., & Chen, C. H. (2017). Combining the technology acceptance model and uses and gratifications theory to examine the usage behavior of an augmented reality tour-sharing application. *Symmetry, 9*(7), 113.

Mathenge, D. (2013). *The challenges of infrastructure planning in urban slums: Case study of Kosovo, Mathare 4b, and Gitathuru slums in Mathare Valley* (Doctoral dissertation, University of Nairobi).

Nguyen, A. (2022). Digital inclusion: Social inclusion in the digital age. In *Handbook of Social Inclusion: Research and Practices in Health and Social Sciences* (pp. 265-279). Cham: Springer International Publishing.

Nyamnjoh, F. (2015). *Media and Citizenship: Between Marginalisation and Participation*. Zed Books.

Ojebode, A., & Adegbola, T. (2020). Digital transformation of community radio in Africa: A study of audience engagement in Nigeria. *Journal of African Media Studies, 12*(1), 34-56.

Okaka, W. (2013). Community media in Kenya: Enhancing social inclusion. *International Journal of Humanities and Social Science, 3*(3), 51-62.

Pavarala, V., & Malik, K. K. (2021). Community radio for social change: Restoring decentralized democratic discursive spaces. In *Handbook of Communication and Development* (pp. 190-212). Edward Elgar Publishing.

Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society, 3*(1), 3-37.

Salter, L. (2020). Community radio in rural Australia: Digital transformation and social inclusion. *Media International Australia, 175*(1), 123-136.

Siemering, W., Fairbairn, J., & Rangana, A. (2002). Assessing community radio: Its impact and challenges. *AMARC Africa and Panos Southern Africa*.

Thussu, D. K. (2019). Digital media and the Global South: Enhancing social inclusion through community radio. *Media Asia, 46*(1-2), 50-61.

UNHABITAT. (2020). Informal settlements' vulnerability mapping in Kenya Facilities and partners' mapping in Nairobi and Kisumu: The case of Mathare. *UNHabitat*. Retrieved from https://unhabitat.org/sites/default/files/2021/08/the_case_of_mathare_final.pdf

Whiting, A., & Williams, D. (2013). Why people use social media: A uses and gratifications approach. *Qualitative Market Research: An International Journal, 16*(4), 362-369.