

# A STUDY ON STRATEGIC HEALTH COMMUNICATION UNDER DIGITALIZATION: 'A CASE OF TOBACCO CONTROL IN ZANZIBAR'

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**Abstract:** Despite the significance of Strategic health communication has become increasingly important in the age of digitalization to promote healthy behaviours, prevent and control disease, new challenges has been arisen in implementing communication strategies under digitalization particularly in developing countries such as Zanzibar. This paper examines the case of tobacco initiative efforts in Zanzibar, an island region of Tanzania, which has utilised strategic health communication under digitalization to control tobacco use. In this research, the researcher used thematic approach to analyse data whereas 26 media professionals and health experts were sampled. The findings of this qualitative study revealed that digitalization has revolutionized health communication by offering new avenues for dissemination of health information, promoting health awareness and education, and facilitate behaviour change of the people to enhance tobacco control efforts without compromised health service care. Further, despite the digital media platforms has proven to be important in health communication, but the result also revealed that there were a number of challenges associated with digitalization in health promotion and information-seeking behaviours and accessibility. Therefore, improving digital media literacy, availability of internet infrastructure, and combining traditional health services care with strategic digital health communication, and educating the public about a new tobacco control strategies and laws that banning public smoking and tobacco advertising and use in public space, will help to control tobacco usage not only in Zanzibar but also in all developing countries in general.

**Keywords:** Strategic health communication, Digital literacy, Tobacco control, Digital media.

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## 1. INTRODUCTION

In today's rapidly evolving digital era, effective communication has become more critical than ever, especially in the realm of public health (Odger et al. 2020). Strategic health communication performs a critical role in disseminating vital information and promoting positive behaviour change among communities (Gunasekeran et al. 2020). This holds true in the in the wider context of prevention of tobacco use, where comprehensive communication strategies are crucial to combating the detrimental effects of tobacco use. This paper focuses on examining the application of strategic health communication within the digitalization framework, using the case study of Zanzibar's tobacco control.

As the percentage of people using digital media platforms continues to grow globally, there is an increasing need to utilize these platforms for public health awareness and the implementation of preventive and control strategies (Eysenbach, 2008). Social media and other new technologies, including digital and mobile phones, have become indispensable parts of people's lives all around the world (Global Digital Review Report, 2020). Social media platforms has arisen as an extremely effective

tool for disseminating information, engaging with the public, and fostering behaviour change on a large scale (Heldman et al. 2013). Leveraging these new technologies can greatly enhance public health efforts. As a study report indicated that internet users worldwide have reached the 4.5 billion a level of significance while social media users have surpassed 3.8 billion, this technology can have a strong influence on improving health outcomes (Mai et al. 2021).

According to the Digital 2020 Report, Tanzania, which includes Zanzibar, has 14.72 million online users, which have increased by 3.0% from 2019 to 2020, whereas 4.50 million individuals use social media, a figure that has went up by 13% since January 2020. The data also indicates that Internet penetration exceeded 25%, whereas social media penetration exceeded 7.6% in January 2020. (Digital 2020 Report, 2020). Also, the report indicated that there were 44.13 million mobile connections, a growth of 1.6% in January 2020, representing 75% of the population. This substantial rise in internet users will have a substantial influence on people's daily lives as well as on the well-being of whole communities.

Recently, strategic health communication has played a crucial role in promoting public healthcare interventions, particularly within the framework of tobacco control. With the increasing prevalence of digitalization and the broad adoption of technology, innovative approaches are needed to effectively disseminate health-related information and promote behavioural change. This paper explores the case Zanzibar's tobacco prevention and control, focusing on the application of strategic health communication in the digital era.

Tobacco use is a significant problem for public health globally, causing nearly 6 million deaths annually. Zanzibar, an archipelago in the Indian Ocean, has been grappling with the harmful impact of tobacco consumption on individuals and societies on public health. In Zanzibar, tobacco consumption has been a longstanding issue. It seems likely about 15 percent of people nationwide uses tobacco, contributing to high rates of non-communicable diseases and numerous health problems and economic burdens. The advent of digitalization has brought forth new opportunities for health communication, transforming the way information is accessed, shared, and received by individuals (Menvielle et al. 2017). Various digital platforms, such as social media, mobile applications, and online forums, have emerged as powerful tools for disseminating health messages, engaging communities, and fostering behaviour change. The integration of digitalization into health communication strategies offers unique opportunities to reach wider audiences, tailor messages to specific target groups, and facilitate engagement and participation (Kent et al. 2016).

As digital media technology grow rapidly, there are new potentials and challenges to public health communication campaigns. In 2009, the government of Zanzibar launched a strategic anti-tobacco campaign utilising mass media, social media, mobile technology, and community mobilisation to denormalize tobacco and warn about its health consequences. The campaign targeted youth and educated the public about a new tobacco control strategy banning public smoking.

However, the topic of intense debate is how digital platforms could potentially be utilised effectively for healthcare communication strategies to deliver impactful tobacco control interventions and reach diverse target populations, as well as the importance of strategic health communication in raising awareness, changing attitudes, and influencing behaviour related to tobacco use in Zanzibar backdrop.

In this study, health communication strategies are another key idea. Health communication, according to Schiavo, (2013) refers to the process of sharing and exchanging information about health-related topics between individuals, communities, organisations, and healthcare providers. It entails the usage of various communication strategies, channels, and tools to educate, inform, and engage people in matters related to health, well-being, and healthcare services. Digitalization is another key component in this study that requires clarification. As noted by Brennen and Kreiss, (2016) digitalization refers to the process of converting analogue information or processes into digital format, enabling the storage, processing, and transmission of data electronically. Digitalization within the perspective of health communication strategies refers to the process of integrating digital technologies and tools into various aspects of healthcare communication to improve information dissemination, patient engagement, and overall healthcare delivery (Paul et al. 2023). It involves leveraging digital platforms, such as websites, social media, mobile applications, and telemedicine, to facilitate the exchange of health-related information between healthcare providers, patients, and other stakeholders (Paul et al. 2023; Parida, 2018).

This current research therefore aiming to provide empirical knowledge on the effective application of digital media platforms for the integration of strategic health communication in tobacco control initiatives. Three research objectives are addressed in this study: To analyse the role concerning the digitalization of health communication strategies in controlling

tobacco usage on Zanzibar Island. To explore the potential advantages and challenges faced in implementing strategic health communication initiatives for tobacco control under digitalization in Zanzibar. To suggest alternatives for better application of strategic health communication under digitalization to effectively control tobacco use in Zanzibar.

## 2. RESEARCH QUESTIONS

**RQ1:** How is strategic health communication under digitalization used in controlling interventions for tobacco usage in Zanzibar?

**RQ2:** What exactly are the potentials advantages and challenges faced in implementing strategic health communication initiatives for tobacco prevention and control in a digitalized context in Zanzibar?

**RQ3:** What techniques and guidelines can be implemented to effectively prevent and control tobacco use in Zanzibar under the influence of digitalization without compromising health services?

## 3. LITERATURE REVIEW

### • Overview of Global Tobacco Control Strategies.

Tobacco use remains a serious public health threat globally, resulting in over 8 million deaths per year (WHO, 2019). In response, the World Health Organization (WHO) developed the MPOWER policy package to assist countries in implementing effective tobacco control strategies. MPOWER includes measures to monitor tobacco use, protect people from second-hand smoke, offer help to quit, warn about the dangers, enforce bans on advertising and promotion, and raise taxes (WHO, 2019).

Specific strategies used globally include preventing the smoking of cigarettes in public areas and workplaces, plain tobacco packaging, graphic health warnings on packaging, comprehensive bans on advertising and sponsorships, and tobacco taxation (Levy et al., 2019). Mass media campaigns are also utilised in many countries to educate the public on the harms of smoking. According to Hiilamo et al. (2012) over half of the world's nations mandate smoke-free policies and health warnings, while over 35% completely ban tobacco marketing. High-income countries generally have the most extensive policies implemented.

However, challenges remain in strengthening and enforcing measures in many low- and middle-income nations. The tobacco industry continues promotional activities through points of sale, social media, and sponsored events (Levy et al., 2019). Nonetheless, studies indicate that countries with the most stringent tobacco control policies have seen the largest reductions in smoking rates (Levy et al., 2019; Hiilamo et al., 2012). Sustained political commitment, along with a comprehensive set of evidence-based interventions outlined in the MPOWER package, can help all countries curb the global tobacco epidemic. Therefore, the purpose is to understand how strategic health communication under digitalization is used in controlling interventions for tobacco usage, as well as the challenges faced in implementing health information in tobacco control in a digitalized context in Zanzibar.

### • Digitalization and Health Communication Strategies.

The emergence of digital technology has significantly impacted health communication strategies in recent years. According to Smith (2019), the widespread distribution of smartphones with increased public usage of online platforms have opened new avenues for health organisations to disseminate messages and interact with target populations. Digital tools allow for targeted, personalised, and interactive communication approaches that can increase message exposure, comprehension, and engagement (Seltzer & Jean, 2012).

For example, Sparks (2017) explains that health agencies have established robust social media presences on platforms like Instagram, Facebook, and Twitter to share bite-sized health tips, promote events/services, and counter misinformation. The interactive nature of social media also enables audiences to ask questions and provide feedback. Other digital tactics include SMS text messaging to send appointment reminders or treatment instructions (Fiordelli, Diviani & Schulz, 2013). Meanwhile, web and mobile apps facilitate on-demand access to health resources and peer support networks (Hswen et al., 2013). While digitalization provides many new communication opportunities, it also presents challenges. Content must be tailored for different platforms and audiences (Sparks, 2017). Maintaining two-way engagement and managing user-

generated content requires considerable effort and resources. There are also concerns around misinformation spread, data privacy, and exacerbating disparities for populations lacking digital access or skills (Briones et al., 2012).

To this end, digitalization has fundamentally expanded and diversified health communication strategies. However, Smith (2019) argues human interaction remains essential, with digital platforms best leveraged to supplement, not supplant, personal and community-based communication. Careful targeting and evaluation are critical to ensure appropriate usage and impact. These insights will illuminate the study on the implication of use of digital platforms on health communication strategies in controlling tobacco usage in Zanzibar.

- **Digital Platforms and Tobacco Control Campaigns in Developing Nations**

Digital platforms have become a powerful tool in shaping public health campaigns, including those focused on tobacco control. With the broad application of the internet and social media, digital platforms offer unique opportunities for reaching and engaging diverse populations in tobacco control efforts. The growth of mobile and internet connectivity globally provides new opportunities to reach people with tobacco control messaging in developing nations. According to a review by Struik and Baskerville, (2014) Facebook and SMS text messaging are two promising digital platforms to support anti-smoking efforts in low to middle income countries.

Facebook's accessibility and adaptability features can aid health promotion and community engagement around tobacco use. In India, the "Two degress" Facebook page launched by HRIDAY-SHAN uses provocative images and stories to resonate with youth against smoking (Mangal et al. 2020). SMS text messaging enables sending quit smoking advice, distracting activities, or motivational messages directly to individual phones. Text2Quit programmes in countries like Costa Rica have increased participant quit rates (Struik and Baskerville, 2014). Campaigns can focus on countering pro-tobacco imagery and promoting cessation. For example, Pritchard et al. (2019) tested anti-smoking Facebook ads targeting Indonesian youth, finding they stimulated conversation and social norm change against tobacco.

However, Skarbinski et al. (2021) note there are challenges in leveraging digital tobacco control in limited-resource settings, including lack of population-level internet access, low digital literacy, and difficulties assessing impact. They recommend careful formative research and piloting to optimise technology use, plus combining digital approaches with traditional mass media and in-person efforts. Since online social networks and mobile messaging present opportunities to increase the reach of tobacco control messaging cost-effectively in developing nations. While digital cannot fully substitute for conventional media and interventions, integrating digital components into campaigns can further tobacco control goals (Mangal et al. 2020).

This paper will therefore interrogate these themes with the view of understanding the significance function of online media platforms in strategic health communication, based in tobacco control initiatives, and highlights the potential benefits and challenges associated with this approach, and also exposing gaps to which this particular study can add knowledge.

- **Challenges in Conducting Health Communication Strategies in Digitalisation World**

While digital platforms provide new prospects for anti-tobacco messaging, several challenges remain in leveraging these channels effectively. The growth of digital media presents potentials and challenges in tobacco control communication strategies. A major issue is the marketing tactics of the tobacco industry, which exploit digital channels to promote products, especially to youth and young adults (Liang et al. 2019). Tactics include social media branding, influencer marketing, apps, and targeted ads (Ramamurthi et al. 2018). Regulations often fail to keep pace with the marketing innovation. There are also concerns about pro-tobacco imagery and messaging being spread through social networks (Allem et al. 2021).

A major issue is the barrage of pro-tobacco content and covert marketing that youth encounter online, circumventing bans on traditional advertising (Freeman, 2012). Tactics like branded hashtag campaigns, influencer posts, and events target youth on social media (Allem et al. 2021). Countering this digital marketing requires sophisticated messaging guided by behavioural science (Freeman, 2012). However, developing countries often lack resources and regulations around online tobacco promotion (Jiang & Beaudoin, 2016).

Additionally, misinformation regarding tobacco continues circulating widely on social media, making it difficult for factual public health communications to compete (Shi et al. 2019). Platform algorithms can exacerbate this issue through selective exposure effects (Shi et al. 2019). Health organizations must also contend with lower digital literacy among some vulnerable

populations targeted by anti-tobacco efforts. Lu et al. (2021) found text messaging had limited effects on rural Chinese smokers with low education. Creative messaging and diverse platforms are needed. There is also the issue of message clutter, making it difficult for public health education campaigns to stand out (Liang et al. 2019). Further, digital divides remain, with some key demographics still lacking quality access and literacy.

Interesting to note while digital media enables innovative health communication strategies for tobacco control, challenges around industry marketing, misinformation, and disparities in access and literacy threaten their impact (Freeman, 2012; Jiang and Beaudoin, 2016). This study therefore seeks to identify potential advantages and challenges faced in implementing strategic health communication initiatives for tobacco control under digitalization as well as to suggest better application of digital health strategies in the tobacco control in Zanzibar.

#### 4. THEORETICAL PERSPECTIVE

Communication theories explain the reasons and motivations that lead people to use particular information sources (Miller, 2005). *The Health Belief Model (HBM)* is a psychological model which attempts to explain and anticipate individuals' health-related behaviours. This model was launched in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels. The HBM posits that people's health behaviours are influenced by their perceived susceptibility to a health threat, perceived severity of the threat, perceived benefits of taking action, perceived barriers to action, and cues to action. In the case of Zanzibar's tobacco control, this model can guide the study by examining individuals' perceptions of the risks associated with tobacco use as well as the benefits of tobacco control and addressing barriers through practical solutions.

Another theory is the *Diffusion of Innovations Theory (DOI)*. This theory explores the process by which new ideas, products, or behaviours spread within a social system. The theory suggests that different populations embrace new concepts or practices based on specific attributes such as relative advantage, observability, trialability, compatibility, and complexity (Moseley, (2004). The theory allows communicators to identify different groups within the population. The Diffusion of Innovation theory can guide the selection of appropriate platforms and channels based on the characteristics and preferences of the target audience (Dearing and Cox, (2018). The Diffusion theory can be effectively applied to strategic health communication in the broader context in tobacco control under digitalization. The theory can guide the development and implementation of communication strategies aimed at reducing tobacco use and promoting healthier behaviours. This current study seeks to understand how strategic health communication under digitalization can be used to prevent and control tobacco usage in Zanzibar. Also, *The Uses and Gratifications Theory (UGT)* Suggests that individuals are driven to employ a specific source of information based on their personal needs and desires (Ruggiero, 2000). This theory states that, people actively choose media outlets or communication sources that fulfil certain gratifications or satisfy specific needs. These needs, based to the perspective of this theory, can include information seeking, entertainment, social interaction, personal identity reinforcement, or escape from reality (Ruggiero, 2000; Brandtzaeg and Heim, 2009).

The study uses Health Belief Model (HBM), Diffusion of Innovation Theory, and The Users and Gratifications Theory (UGT) to have clear understanding on the strategic health communication under digitalization of tobacco control initiative in Zanzibar context. Therefore, this current study applies HBM, DOI and UGT to provide comprehensive understanding and analysis on why users employ digital media platforms in accessing and providing strategic health information that help for them, monitoring and evaluating strategic health communication. These theories will provide an in-depth knowledge of why Zanzibar health experts and other citizens use digital technologies for health information strategies and tobacco control as well as comprehending the challenges facing them in the integration and accessibility of health information under digitalization approach in Zanzibar.

#### 5. METHODOLOGY

This qualitative study seeks to understand the strategic health communication under digitalization and its implication in controlling tobacco usage in Zanzibar. For this study, qualitative research methods were employed, since they provide the data needed and offer insight on the views and perspectives of many people (Hastie and Hay, 2012). Since interviews encourage open and unrestricted discussion and allow for additional inquiries, the researcher selected interview approaches as the primary technique of data gathering. Also, the researcher used thematic approach as a data analysis method of this study. The research was carried out from May 15<sup>th</sup> to July 25<sup>th</sup> 2023. Only telephone interviews between media and communication professionals and some health experts in Zanzibar.



Participants in this research involved 13 media and communication professionals, and 13 health experts. We coded media and communication in this study as MP1, MP2, MP3... whereas health experts were coded as HE1, HE2, HE3..... The use of digital technology in the context of health communication approaches remain an emerging implementation, purposive sampling therefore was adopted by the researcher to select respondents, and their key qualification to participate in this current research was that must be a digital media users.

## 6. DATA PRESENTATION AND DISCUSSION

### • The Usage of Digital Platforms in Strategic Health Communication in Tobacco Control.

The primary goal of this study's first research question was to determine how digital platforms are used in health communication strategies in tobacco control initiatives. Categorization of this question based on the professional and experience of the respondents to precisely comprehend on this question. The investigator wanted to know how media professionals utilized digital media platforms to access health information related to tobacco control campaigns. The other hand, the researcher also wanted to find out how health experts employed digital media platforms for strategic health communication in tobacco control initiatives.

Concerning media and communication professionals' usage of digital media platforms for health communication in tobacco control. Out of the 13 media professionals, 8 said they employed digital media platforms like Twitter and Facebook to search for health information on quitting smoking and the effective ways on how to prevent tobacco usage as well as to understand the impact of tobacco use on their health. Whereas, 5 respondents asserted that they used digital media platforms to look for information on how to mitigate the impacts of tobacco in Zanzibar and how to treat those who are severely addicted to smoking tobacco.

Regards to media professionals, MP1-MP8 respondents out of 13 comment that, the usage of digital platforms in strategic health communication has played a crucial role in Tobacco control efforts. According to data from the interview, expressed that digital platforms offer a variety of instruments and opportunities for disseminating health information, engaging with the target audience, and promoting behavior change. As MP1 states:

*"Social media platforms like WhatsApp, YouTube, and Facebook have evolved into critical avenues for reaching a vast and diversified audience. Tobacco control organisations and public health authorities, I believe, can use these platforms to raise awareness about tobacco's adverse consequences, as well as share success stories of quitting, so these digital platforms are critical in overcoming prevent and control tobacco use in society"* MP1.

MP4 shares a similar perspective, recognising the importance of the interaction component of new media in bridging health information strategic communication with their online public worldwide. MP4 elucidate:

*"I think this digital platforms allow health experts to delivery of tailored messaging based on individual preferences, demographics, and behaviors within the certain community. Basically, this targeted approach increases the effectiveness of tobacco control campaigns by delivering relevant content to specific populations"* MP4

Also, many media professionals' participants in this study like MP1, MP3, MP6, and MP8 perceived that interactivity and engagement nature of digital media platforms as a potential regarding of health communication strategies to provide health information to the society and generating feedback from public. MP12 clarify:

*"In my opinion, online platforms encourage interactivity and engagement, allowing for two-way communication between cigarette campaign coordinators (professional doctors) and the target public. Online forums, chatbots, and interactive Social networking sites including Facebook and WhatsApp stimulate involvement, provide support, and address tobacco-related concerns. I believe this is a successful approach of educating and raising public awareness."*MP12

MP8 stressed about the usefulness of using digitalization approaches on health communication strategies in controlling tobacco use. She comment:

*"People like me utilised Social networking outlets like WhatsApp and Facebook to connect with medical organisations that offered advice on quitting smoking and managing withdrawal symptoms. For me, I used these digital channels to view instructional YouTube videos from doctors about the long-term health effects of tobacco products. It's quite handy."* MP8

Another respondent in this study MP11 who perceived that using digital media platforms for providing health information strategies help many people to find information on mitigating tobacco impacts and gaining awareness on treating tobacco addiction. She said:

*"People looked up digital platforms that track smoking behaviours and encourage users to quit. Others joined online tobacco-free forums where they could seek guidance from health experts on alternative health information tactics on effective medicines and therapies to stop smoking and treat nicotine addiction."* MP11

Respondents in this study, such as MP7 and MP10, believed that digitalization of health communication information strategies could assist health experts in providing accurate health information that would enable people understand the impact of tobacco use and advise them to change their traits and perceptions against smoking. As MP10 elaborate:

*"I learned about the health effects of tobacco and how to quit smoking through Facebook groups and YouTube videos. Actually, I discovered an online support group supervising by professional health experts that offered advice on gradually cutting back nicotine consumption. After a doctor urged me to quit smoking, they also provided information about tobacco cessation drugs such as nicotine gum and patches. Basically, I can say that information on health communication is being digitalized has been quite beneficial,"* MP10 added.

As previously noted, the majority of participants agreed that the incorporation of digital media platforms in health communication strategies has increased the facilitation of providing health information quickly and efficiently on accelerating the process of people's behaviour change. As MP13 points out:

*"Health communication efforts are aimed at promoting behavior change by encouraging tobacco users to quit and preventing initiation among non-smokers. I think through targeted messages, campaigns can stressed the advantages of stopping smoking, such as improved health, reduced risk of disease, and financial savings. I do believe that, digitalization of health communication can counter the industry's marketing tactics and create social norms that discourage tobacco use"* MP13 added.

Concerning to health experts, 7 respondents out of 13 said that, they utilized digital media platforms for providing health education and awareness to the public about tobacco control and prevention as well as searching for better communication strategic methods in controlling and combating tobacco usage in the society. On the other hands, 4 health professionals confirmed that they employed digital media platforms for generating user-generating content and feedback for what they post about tobacco controlling campaign and innervations.

Regarding the utilization of digital media platforms for providing and promoting health awareness in tobacco control, HE1 said that:

*"I use my digital media accounts to spread health information in order to increase awareness to the people and society in general about the adverse outcomes of tobacco use, since these platforms has proven to be highly effective in reaching and engaging diverse populations"*. HE1.

Furthermore, HE3 on her side emphasized:

*"Due to the interactive nature of digital platforms, as a health experts we used this platforms to deliver communicative messages about tobacco control campaigns, facilitated dialogue concerned to the awareness and education in tobacco control and usage in the society, it was effective techniques"* HE3

Effective health communication through digital media platforms according to HE6 and HE7 agreeing that have the potential to raise awareness about the risks of tobacco use, promote cessation, and prevent initiation in the society. As HE6 elaborated that:

*"We used digital platforms like Facebook and WhatsApp pages to provide information on the health risks associated with tobacco uses, such as lung cancer, cardiovascular diseases, and respiratory illnesses and encouraging them to make informed choices to make distancing with tobacco usage"* HE6.

Effective health communication strategies under digitalization as many health experts including HE2, HE4, HE5 and HE7 all noted that it help them as a professionals to deliver clear and target messages to educate individuals and as a groups about the Access to Cessation Services. As HE4 started:

*“Actually, the uses of social media sites pages such as Twitter and Facebook it doesn't require any dedicated technical resources, so we use them to facilitate accessibility to quitting smoke services by informing individuals and a groups in the community about available resources, such as quitlines, counseling services, and medications, just to encourage smokers to seek help and increase their chances of successfully quitting the usage of tobacco for those who already addicted on it”* HE4

Similarly this point was emphasized by HE5 as she said:

*“As we you know our aim as health professionals we use digital media channels for promoting behaviour change by encouraging tobacco users to quit and preventing initiation among non-smokers. Through targeted messages, we emphasise the advantages of halting smoking, such as improved health, reduced risk of disease, and financial savings. Additionally, encourage social norms that discourage tobacco use”*. HE5

According to health experts HE1 to HE7 they believed that, the uses of these digital platforms in health communication strategies were helped them to build better communication with the wider community due to it has interactive features has been attracted many people especially youth group which are highly engaged in digital media platforms. As a HE2 she said:

*“Basically, it is a better strategy for us as health experts to engage with as many groups in the society as we can, provide them with the appropriate health information based on the precaution and risk of tobacco use that they seek, and gathering their feedback. So I believe that social media platforms have the ability to quickly and broadly disseminate our messages, and they also provide us with another way to receive immediate feedback”*. HE2

In elaborating the utilization of digital media platforms for health communication for tobacco controlling and prevention strategies, All HE8 to HE13 emphasis in supporting policies on tobacco control and advocating for their implementation. As HE9 asserted:

*“We use digital approaches including social media platforms pages to educate the public, policymakers, and stakeholders about the important and benefits of evidence-based policies, such as smoke-free laws, graphic warning labels, and tobacco taxes. So these digital media channels help us for raising awareness and garnering public support, I think the strategies can contribute to the adoption and enforcement of effective tobacco control measures”* HE9

Another health expert who elaborated that she used digital media sites such as Twitter and Facebook to spread health information to deliver people awareness towards the dangers of using tobacco and how to quit from it. HP13 she said:

*"In fact, digital media channels like Facebook, which I have used for a couple of years now, enable us as health professionals to accelerate our work professionally and easily. We can upload our health information concerning tobacco control strategies on our Facebook accounts, and we can share that information online."* HP13.

To this end, this section revealed that health communication strategies under digitalization plays a crucial role in tobacco control efforts by disseminating information, shaping attitudes, and influencing behavior change among individuals and communities. Effective health communication campaigns have the potential to raise awareness about the risks of tobacco use, promote cessation, and prevent initiation.

#### • **Challenges Faced in Implementing Strategic Health Communication Initiatives Under Digitalization in Tobacco Control.**

Strategic health communication plays a crucial role towards health care interventions, including tobacco control. With the quickest development in digital technology, the landscape of health communication has transformed, offering new opportunities and challenges. In this study the second equation sought to understand the challenges faced in implementing strategic health communication initiatives under digitalization, focusing on tobacco control efforts in Zanzibar. To comprehend the reaction of both media professionals and health experts, all 26 participants confirm that there are some challenges concerned with use digital media in providing health information strategies about controlling tobacco under digitalization approach in Zanzibar.

Regarding to media professionals' reactions on the challenges of adopting digital media for health communication strategies, MP3 evidently acknowledged that integration of digital platforms can cause information overload and misinformation and make not easy for the society to filter the correct health information to access and use. She said:



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*“People including me can employ digital media platforms like Twitter and Facebook because it is so easy and fast technology, so, digital platforms are saturated with many information, including tobacco-related content of varying quality. But maintaining the validity and authenticity of shared information in those platforms is crucial to combat misinformation and promote evidence-based messaging”. MP3*

However, MP10 has pointed out on the huge obstacle of using digital media platforms in providing health information is that the absence of filtering mechanisms has become one of the significant defects in tobacco controlling strategies due to the possibility of falsification is very high.

Some media professionals and health experts agreed that lack of digital literacy on using digital media platforms for some people in the society can be a huge challenges for them to get proper information concerning to health information in tobacco control and preventing strategies. As MP4 he started:

*‘As you know, this is new technology, so understanding and navigating digital platforms requires skills or a certain knowledge level of digital literacy, which might be lacking in some vulnerable populations, hindering their access to health communication initiatives via online platforms’. MP4.*

Despite the HP5 credited digitalization of strategic health communication for their significant contribution on disseminating of health information in tobacco controlling initiative in Zanzibar but she rise her concerned about privacy and ethical considerations. HP5 explained:

*‘The use of digital platforms raises concerns about privacy and data protection. Campaign organizers must adhere to ethical guidelines and ensure that user data is handled securely and in accordance with relevant regulations’. HP5*

Also, MP6, MP7, MP9, and MP11, among others, stressed the impact of misinformation that can be circulated on digital media platforms by unprofessional health personnel that can cause threats to public health, which can impact the whole strategic health communication in the tobacco control campaign in Zanzibar. As MP9 commented:

*‘As you know, digital media channels are not difficult to use to some extent, such that even unprofessional health experts (non-identified health professionals) can share fake or misinformation health content easily that causes serious confusion to the public’. MP9.*

According MP12 and MP13 both stressed that the digital age has given rise to the rapid spread of misinformation and rumors, which can undermine public health efforts. MP12 explain:

*“When it comes to prevention of tobacco use in Zanzibar, efforts to counter tobacco industry propaganda and debunk false claims about tobacco products face significant challenges in combating the spread of misinformation and rumors through social media platforms to some extent impede public health communication strategies” MP12*

Also, many health experts and media professionals raised their concerned on the accessibility of internet and technical infrastructures act as hue challenges for many people especially in the country side to access digital media platforms easily. As MP11 stating:

*“In most cases in developing countries, we Encounter obstacles like as lack of technical infrastructures, networking and even digital equipment in practising our job. Hence, affecting utilization of social media platforms messages to many people to access the health information effectively”MP11*

Some of the media participants, like MP5, MP9, MP12, and MP13, maintained their concern about the limitation of digital skills for many people in society to advantage connectivity and utilize online media platforms. and the accuracy of the health information from authentic sources. MP5 elaborates:

*‘To my experience of using social media platforms, actually I do believe that not everyone has equal access to digital media or the ability to navigate it effectively, potentially leaving some parts of the population underserved by health communication efforts’. MP5*

However, some professional media interviews like MP12 and MP13 both raised their concern of using digital media platforms in health communication according to them is the production of poor quality and understandable content to public. They clarify that the production of health information via digital media platforms needs a high rate of literacy and creativity that many health experts seemed to lack, MP12 stating:

*“Digital media platforms, in my opinion, have contributed to the production of poor quality health-related content due to the process of preparing and producing quality and creative health information content requires a high level of digital literacy, which many health personnel in developing nation’s lack”.* MP12.

Based on the health professionals’ reactions on the challenges faced in implementing strategic health communication under digitalization, most of the interviews (9) they believed that it has some challenges in the forms of implementation towards the dissemination and controlling the tobacco uses campaign whereas the rest of interviews (4) perceived digital media platforms as opportunity for them to implement their strategic health communication in tobacco control initiative. For those who do not have media skills can be suffer on this technology.

For instant, all 9 health experts they believed that the lack of availability and accessibility of technical infrastructure and internet services in some part of the country can be one of the barriers to the effectiveness of using digital media platforms in promoting strategic health communication in tobacco controlling in Zanzibar. As HE2 asserts:

*“In certain regions of our country, there might be inadequate internet infrastructure, including limited telephone towers and broadband coverage, as well as slow internet speeds. Of course, it can hinder individuals’ ability to access digital media platforms reliably and basically discourage health professionals from investing in online communication and providing appropriate health information strategies concerning tobacco control initiatives to as many people as possible”*HE2

According to interview HE5, HE6, HE7, and HE9 they elaborate their concern on the highest cost of internet bundle to the people who are most of them are living in the country side that is difficult for them to affords and access digital media platforms to access accurate health information online. HE7 further clarify that:

*“Take an example; in areas where access to the internet is available, the costs associated with accessing the internet might be prohibitive for some members of the population, especially those from low-income backgrounds. I think this digital divide can exacerbate health inequalities, as crucial health information like our tobacco control campaign may not reach those who need it the most’* HE7

A similar reaction was offered by HE4. The expert described that the lack of good ICT infrastructure and the digital divide in the community act as communication barriers to their tobacco control strategies. She was asserting.

*"In my perspective, incorporating digital platforms into tobacco control programs may exacerbate existing health inequities due to unequal access to technology and internet connectivity. I believe that additional strategies must be executed to overcome the digital divide and ensure fair access to digital tobacco control programs in society."* HE4 has been added.

HE9 also highlighted the lack of equal internet availability in remote areas, and unstable power supply as a barrier to accessing appropriate health information through digital technologies. He stated

*“In rural areas, geographical factors can make it challenging to provide health information due to the non-existence internet connectivity. So, I think the lack of network coverage limits people’s ability to access accessing healthcare and health information via digital media platforms regularly”* HE9.

Although HE12 and HE13 both of them credited digital media platforms as a tool that enable them as health experts to smoothly collect, processing as well as disseminate health information via online platforms such as Facebook pages, they both expressed their concern about digital illiteracy to some fellow health professionals and other members of society. HE12 elaborate further:

*"Even in areas where internet access is available, there can be disparities in technological literacy." Some people, particularly seniors or those with limited exposure to digital technology, may struggle to properly use digital media platforms, Users may be less likely to view, interact with, or share health-related information if they experience technical difficulties or long loading times, limiting the reach and impact of our health communication strategies and efforts in control tobacco uses in Zanzibar”* HE12.

On the other hand, other interviews, like HE1 and HE6, stated that the expense of internet access could be a barrier for individuals to get health information from professionals' health personnel quickly and effectively. As HE6 asserts:

*“I think internet services can be costly, and not everyone may afford or prioritize internet access, especially in low-income or marginalized communities. This financial barrier further restricts access to digital health communication for them especially those who live in the rural areas” HE6.*

One of the key reaction mostly from the health expert’s emphasis about the minimal budgeting to facilitate strategic health communication based in tobacco control under digitalization approach. This reaction was expressed by many experts like HE4, HE7, HE11, HE12, and HE13 they perceive the limited health budgeting act as a huge obstacle to facilitate their duties as a health experts in preparation and disseminating health communication strategic creative messages via online. Proclaiming by HE13 that:

*“Basically, effective digital communication necessitates a large investment in platform marketing expenditures, we need very good tools that allow the production of high-quality specific creative messages, analytics applications, and empowered personnel. I think this could be extremely expensive to our tobacco control campaign to be well success” HE13.*

To this end, despite the integration of digital platforms in tobacco control campaigns offers significant potential for communicating, interacting, and influencing diverse populations. By leveraging the strengths of digital technologies, such as tailored messaging, interactivity, and real-time data collection, tobacco control campaigns can become more effective and impactful. However, it is crucial to address challenges related to the digital divide, information quality, and privacy to ensure that the advantages of the digital integration in health communication strategies are realized in an equitable and responsible manner.

- **Constructive Techniques under Digitalization of Health Communication Strategies in Tobacco Control.**

This section contains the findings related to research question three, which asked respondents to offer alternative approaches that can help health experts' initiatives to mitigate and control tobacco use in Zanzibar under the digitalization. The results of the interviews show that 26 interviewees, regardless of their profession, agreed that the use of strategic health communication in tobacco control is critical in this digital era, though they need to improve the overall strategies to ensure people receive useful health information accurately and quickly from authentically health experts via various communication channels.

One of the issue that was highlighted by majority of interviews about the effectiveness of digitalization of health information strategies is to implement public education campaigns through digital media to increase awareness of the health risks of tobacco and benefits of quitting. This can counteract tobacco marketing done through digital platforms. As MP2 emphasis:

*“I think it is important to health experts to utilize digital tools like mobile apps, text messaging, and interactive social media platforms to provide support and resources for tobacco cessation, because this makes help more accessible to many people in the society in the digital world” MP2.*

Another issue raised by many health professionals is the enforcement of rules and regulations. HE3 emphasized:

*“Enact and enforce laws restricting tobacco support and promotion on digital platforms like social media, websites, and mobile apps. This limits exposure especially for kids, to engaging in and beginning to use tobacco in their lives” HE3*

As health communication plays a vital role in supporting tobacco control policies and advocating for their implementation. HE12 suggest that:

*“As a health expert I suggest that communication campaigns should continue to educate the public, policymakers, and stakeholders about the benefits of evidence-based policies, such as smoke-free laws, graphic warning labels, and increase tobacco taxes. I do believe that by raising awareness and garnering public support, health communication can help to accelerate the adoption and implementation of effective tobacco control policies successfully” HE12.*

Another issue that was highlighted by number of participants in interviews on the control tobacco use in Zanzibar was the increase of taxes to tobacco products such as cogitate. HE9 emphasis: *“Raise tobacco and related products taxes and dedicate revenue to digital cessation and prevention programs, will makes tobacco less affordable” HE9.*

Interestingly, both of the media professionals MP4 and MP7 both of them recommended that health professionals could employ gamification by offering incentives as part of the rewards for those who are successful in quitting tobacco use in their health strategy to urge other users to cease using tobacco products. MP7 suggests:

*“Gamification approaches, in my opinion, can be applied into digital platforms such as mobile applications and websites in order to make the process of quitting smoke more interesting and rewarding for those who stop smoke. As a result, users may receive points or awards for reaching specified milestones; I believe this method will increase motivation among others to quit tobacco products” MP7.*

Another option offered by several participants (MP6, MP8, MP11, HE5, HE10, and HE13) about successful alternative techniques that can aid health professionals' initiatives to reduce and regulate tobacco is the uses of social media tools. In this alternative, they propose balancing in the application of digitalization to implement evidence-based tobacco control policies as well as provide innovative cessation assistance, education, and equal access to health information to all people regardless of economic or social status.

As one of the media professional MP3 in her perspective noted that:

*“I advise setting up a toll-free mobile quit line service, that line can be utilised to offer counselling and assistance to persons seeking to quit tobacco usage. This service should be accessible via phone calls, text messages, or mobile apps, while also maintaining user comfortably and privacy”MP3*

What can be learned from this finding is that the use of digital platforms in strategic health communication has revolutionized the way tobacco control efforts are conducted. Therefore, the findings signifying that by leveraging the power of technology and the internet, public health authorities and organizations can effectively communicate with diverse populations, empower individuals to quit tobacco use, and ultimately reduce the burden of tobacco-related diseases on a global scale. To this end, by leveraging the potential of digitalization through these techniques and guidelines, Zanzibar can significantly enhance its tobacco control efforts while ensuring that health services care remains accessible and uncompromised. Digital platforms offer a cost-effective and scalable approach to reach and engage with a broader audience, ultimately contributing to reducing tobacco use and its associated health burden in the region.

## 7. CONCLUSION AND RECOMMENDATION

The strategic implementation of health communication under the influence of digitalization has proven to be a powerful tool in advancing tobacco control efforts in Zanzibar. By harnessing the capabilities of online platforms, region has been able to reach a wider audience, engage with diverse communities, and promote behaviour change without compromising essential health services. Digital platforms have played a pivotal role in raising awareness about the harmful effects of tobacco use, debunking myths, and disseminating crucial information related to cessation support and policies. Through digital media campaigns and webinars, public health authorities have communicated with individuals seeking to quit tobacco, healthcare professionals, and advocacy groups.

Moreover, the incorporation of online support groups and virtual counselling services has made the process of tobacco cessation, to some extent, accessible, engaging, and tailored to individual needs. Some professionals emphasize that more effort must be done to develop a perception of community and social support, empowering individuals in their journey towards a tobacco-free lifestyle. Utilize digital tools to monitor and control tobacco advertising on various online platforms, ensuring compliance with advertising regulations. Although Zanzibar has demonstrated a commitment to inclusivity by providing multilingual digital content and ensuring that digital campaigns and support services are accessible to all segments of the population, Strategic collaborations with social media influencers and private companies have further amplified tobacco control messages, ensuring a wider reach and increasing the impact of the initiatives. Zanzibar and other countries in the region should effectively utilise data analytics to provide valuable insights into user behaviour and preferences, enabling the targeting of high-risk populations for more effective interventions.

The successful integration of digitalization into tobacco control efforts has been a testament to the region's adaptability and innovation in public health communication. While embracing the advantages of social media platforms, Zanzibar has also remained vigilant, monitoring and enforcing tobacco control policies online. By combining traditional health services with strategic digital health communication, Zanzibar has paved the way for comprehensive and sustainable tobacco control measures. However, it is crucial to continually evaluate and refine these efforts to stay abreast of evolving digital trends and address emerging challenges. To emphasise the implementation of digital tools for monitoring and enforcing tobacco control policies, such as online platforms for reporting violations and tracking the implementation of smoke-free areas and tobacco advertising bans. Zanzibar should continue to foster collaborations with private organisations, companies, and digital platforms to amplify tobacco control messages through sponsored ads, public service announcements, and social responsibility initiatives.

To this end, Zanzibar's experience with strategic health communication under digitalization in tobacco control serves as a remarkable example for other regions. As the digital environment grows and changes, it is imperative for public health authorities to harness the full potential of digital platforms, adapt to changing circumstances, and continue to prioritise the well-being of their communities in the fight against tobacco use and its adverse health impacts.

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