

Investigating Digital Transformation in Health Emergency: Exploring the Influencing Factors of Official Social Media Usage: A case study of Sierra Leone

Umaru Jabbie *

College of Public Administration, Huazhong University of Science and Technology,
1037, Luoyu Road, HongShan District, Wuhan, Hubei Province 430074, P.R.China.

* E-mail of the corresponding author:umarujabex@gmail.com

She Shuo

2. College of Public Administration, Huazhong University of Science and Technology,
1037, Luoyu Road, HongShan District, Wuhan, Hubei Province, 430074 P.R.China.

Abstract

The digital transformation of public communication and administration has gained prominence during health emergencies such as Kush, with social media playing a pivotal role in information dissemination. In Sierra Leone where the government and its institutions are limited with resources, it is important to understand the factors influencing public behavior with official social media platforms in order to facilitate better crisis intervention and communication strategies.

Social media improved the country governance dynamics and increase the citizen's participation, so this study seeks to establish the factors that influence the official use of social media in responding to health emergencies in Sierra Leone with particular emphasis on the technological, the organizational, the social, the psychological and the cultural dimensions.

A qualitative research approach was employed, involving in-depth semi structured interviews with diverse participants and citizens who frequently use social media. Through purposeful sampling, 19 participants were recruited aged more than 20 years from the different districts of Sierra Leone.

Thematic analysis identified six key themes based on technological factors, organizational structures, cultural and social variables, internet accessibility factors, psychological factors, and content interactivity. The findings reveal that gaps in governance policies, digital literacy, and infrastructural inequities significantly hinder the effective use of social media platforms. Trust in official sources, community behavior, and culturally tailored content emerged as critical enablers of public behavior. However, challenges like miscommunication, lack of participatory communication, and low technology adoption remain a problem.

The study underscores the need for robust public governance frameworks, development in digital infrastructure, capacity-building initiatives, and culturally sensitive policies to enhance the effectiveness of social media in health emergencies. By addressing these factors, governments and public health organizations can optimize social media as an efficient transformative tool for public health crisis communication, offering valuable insights for policymakers and researchers in similar resource-limited settings.

Key Words: Social Media; Health Emergency; Qualitative Research; Themes

DOI: 10.7176/PPAR/15-1-07

Publication date: April 30th 2025

1. Introduction

Modern society is characterized by acute progress in the sphere of communication technologies, which are based on social media networks. In the last few decades, social media has turned into a strong web 2.0 technology, which offers opportunity for the users to share information, improve interpersonal relations and create social relations at enormous scale with others (Seo & Nam, 2012; Alshaabi et al., 2021). Social media sites like Facebook, twitter, Instagram, WhatsApp and many more have become a turning point in communication trends and opinions, as well as in formation of public opinion and in many aspects of social, political, and economic life (Wahyoedi et al., 2023; Tarigan et al., 2023). This metamorphosis is associated with

the rise of information in people's daily existence, allowing them to use technology to practice active interactions and define productive conversational realities for multilateral cooperation (Ausat et al., 2023). From the above analysis, governments have accepted social media as a means of erasing divides between the public and state institutions and tune the behavior of citizens, as well as to improve service provision. Thus, due to the opportunity to address the deficit of public trust and encourage collaborative governance through active and easily accessible social media websites, governments need to motivate their citizens to engage in e-participation (Mansoor, 2021; Oliveira & Welch, 2013). For example, in USA, Obama administration harness use of social media in increasing transparency, for involving the people in decisions making processes and for supporting democracy (Mergel, 2013; Obama, 2009). Social media's role as a digital tool is increased for public affiliations and government innovation, as its influence on shaping public opinions grows alongside its capacity to facilitate direct citizen behavior (Criado et al., 2013).

2. Theoretical Perspectives

Existing theories such as Agency Theory and the Neo-institutional Framework have been applied to study official communication strategies, but not fully utilized to explore public social media usage behavior during health emergencies in Sierra Leone (Hong et al., 2022), hence the need for more qualitative investigation on behavioral ground. The present study is based on the Social Cognitive Theory (SCT) which focuses on the dynamic interplay of personal, behavioral, and environmental factors in shaping human behavior (Bandura, 1986). Specifically, SCT enriches and enhances the study of social media use in the health crisis context in Sierra Leone as it uncovers ways through which citizens and health administrators think towards usage and engagement of SM platforms. Personal factors such as digital literacy, trust in information sources, and motivation interact with environmental influences like internet accessibility, misinformation prevalence, and cultural norms (Chou et al., 2009; Kaplan & Haenlein, 2010). Simultaneously, behavioral aspects, including content sharing, feedback engagement, and adherence to health guidelines, contribute to the overall impact of social media campaigns (L. O'Sullivan, 2013; Bacigalupe, 2011). By applying Social Cognitive Theory, this study explores how these interconnected factors drive social media adoption and effectiveness in addressing health crises, offering a comprehensive framework for analyzing citizens behavior and communication strategies. Additionally, there is need to investigate the impact of emerging social media on knowledge distribution and its influence on user's outcomes (Vukušić et al., 2021). Drawing from the underpinning of Social Cognitive Theory (SCT), this research emphasizes on exploring the influencing factors that motivate the citizens and the health administrators of Sierra Leone.

3. Methods

3.1 Study design

The current study was cross-sectional exploratory qualitative research which aimed at ensuring that the researchers establish the perceptions that Sierra Leoneans have about the use of social media for communication in connection to health, particularly during health emergencies. It is suitable when little is known about the topic of focus and where data being used is derived from the participant's experience (Holloway & Galvin, 2016). More specifically, social media is defined as any website that allows users generated content, including social networking sites. Quantitative techniques were not employed in this study because they are the best methods for

generating information about the requirements, perceptions, opinions and insights of key population groups (Glaser et al., 1968). In line with qualitative research approaches, there were no research hypotheses prior to this study. This paper used interview as the main data collection technique because this tool fosters free flow of information as well as relevant follow-up inquiries. Self-administered closed-ended telephone or face-to-face interviews between a citizen and in parallel researchers were tape recorded and hand-noted by the researchers in real time. Data for this study was collected between July 2024 and December 2024.

3.2 Participants and Recruitment

The study participants were citizens (health professionals, Community heads, Students and Teachers) of Sierra Leone who had minimum of one-year cumulative experience using social media to distribute or hold health information, specifically in health emergencies for instance, Kush health crises. Twenty-four interviewees were engaged but due to a busy schedule of respondents a total of nineteen interviewees actively participated in the interview discussion. Purposive sampling was used and the participant inclusion criteria were: 1) adults with a age >20 years and have a matriculation as a minimum education, 2) at least exposure of Kush and Covid-19, a health emergencies, 3) had used any social media (Facebook, WhatsApp, Youtube and Instagram) for health-related purposes in the era of a health crisis, and 4) able to participate in the study without the assistance of a translator. Also, through phone calls citizens were recruited to the study; they were from three locations across Sierra Leone, including Western Urban (Freetown) the country's capital city, Southern region – Bo city, Eastern region- Kenema city. These locations were selected because they were among the districts with the highest number of reported covid-19 cases when the health outbreak occurred in Sierra Leone. In addition, the researchers had professional connections in these districts, which favoured our recruitment of healthcare workers. Our study excluded citizens who do not have an account of social media (Facebook) and did not use it during health emergencies. **Table 1** summarizes the geographic characteristics of citizens that participated in the study.

Table 1: Geographic characteristics of citizens

Districts of Sierra Leone	Freetown (Capital City)	Bo City	Kenema	total	%
Western Area (Urban)	11			11	57.89
Southern Region		5		5	26.32
Eastern Region			3	3	15.79
Total	11	5	3	19	100.00

3.3 Data Collection

According to research objectives and ethical consideration, the researchers and the participant briefly introduced the study aims, and the participants signed the informed consent form. Both the primary objectives of the study were as follows: To assess the influencing factors that would facilitate the use of social media in health emergencies. Secondly, to examine the experience, perception, and vision of the citizens of Sierra Leone on current and future use of social media particularly in health emergency. To achieve these objectives, interview questions were prepared by authors and several experts in qualitative research checked. Guidelines for interviews based on previous studies and questions used were further refined through the feedback received from other experts. Since the use of social media in health emergencies by citizens of Sierra Leone is somewhat significant,

the research questions were asked in an exploratory form, based on constructive questions. We also sought benefits and the drawbacks of using social media in health information during health emergencies, country support. The researchers also ask about the perceptions and experiences of the audience who comment on their posts. The authors conducted individual semi-structured interviews using a pretested interview guide (**Appendix 1**). Some examples of the interview questions are: “Do you feel that you need information in health emergency from official social media channel? If so, what kind of information and from whom?”, “Would you like to say something about your own experiences of social media usage in health emergency?”, “What do you think are the reasons for using social media such as Facebook?”, and “Do you find any barriers associated with social media usage? If yes, what are they?” The average time to complete the interview was about 34 minutes excluding discussion before starting the interviews, recorded interviews having been conducted with the consent of the interviewees and verbatim transcriptions being taken. The study did not provide incentives for participants. When 19 subjects had been studied, the interviewers felt that no or a minimal amount relevant information would be gleaned by interviewing other interviewees so that the process of interview was stopped due to perceived saturation (Weller et al., 2018). After saturation the final group of participants is 15 and the respondent’s background information is presented in **Table 2**.

Table 2: Interview Descriptive of participants

Sr.#	ID	Gender	Age	Citizen’s Profession	Social Media (SM) Exp. In Years	Interview Time (Appx)
1	P1	Male	28	Student	6	34 minutes
2	P2	Male	32	Administrator	8	33 minutes
3	P3	Male	37	Administrator	7	34 minutes
4	P4	Female	43	Social Worker	12	33 minutes
5	P5	Male	26	Administrator	5	35 minutes
6	P6	Male	35	Freelancer	8	34 minutes
7	P7	Male	44	Community Head	11	34 minutes
8	P8	Male	37	SM Influencer	9	35 minutes
9	P9	Female	36	Citizen / Nurse	6	35 minutes
10	P10	Male	35	Student	10	33 minutes
11	P11	Male	38	Community Head	7	35 minutes
12	P12	Male	25	SM Influencer	5	34 minutes
13	P13	Female	29	Teacher	8	33 minutes
14	P14	Male	31	Social Worker	8	35 minutes
15	P15	Male	39	Administrator	9	35 minutes
16	P16	Male	34	Administrator	7	Saturated
17	P17	Male	38	Administrator	10	Saturated
18	P18	Female	27	Teacher	6	Saturated
19	P19	Male	24	Administrator	5	Saturated

3.4 Data Analysis

Drawing from Hsieh and Shannon (2005) and Granheim and Lundman (2004), directed content analysis was used to analyze the interview material. To enhance the reliability of the analysis, the study used the team analysis where the two researchers were actively involved in analyzing the codes. Positively, it was effective for discussions to take notes while working through the debriefing process in order to avoid exclusion of any critical

information and was a form of preliminary analysis (Kerr et al., 1998). Thus, data analysis took place during and concurrently with data collection processes as recommended by Pope and colleagues (2000). First, the study was conducted in which the authors read through the transcripts, multiple times, to identify statements that could be labeled meaningfully into emerging categories and codes. Every audiotaped conversation was transcribed as precise and thematically coded (Braun & Clarke, 2006). This could be done through thematic analysis which we chose because it is not tied to a specific epistemological, philosophical, or theoretical stance and is an inclusive method for deriving themes in qualitative studies (Braun & Clarke, 2006). Reviewing notes and transcriptions provided a coping point with the data as it was read multiple times. The overall data was then transcribed either line by line or as the interviews proceeded and the recording was stopped and the NVivo 14 tool used to format the material and analyze the transcriptions. Also, in the search for meaningful patterns, the researchers were partly driven by the interview questions since according to Hsieh and Shannon (2005), the approach used could be considered as directed content analysis. Nevertheless, in a search of categories, information not directly related to the interview questions was also used. As the data was being coded, the researchers also engaged in a discussion leading to the formation of early coding structure. Coding was also holistic rather than as based on preconceived theories and was fluid and emergent in their approach during the analysis. After additional study of the material and discussion with another researcher, more improvements to the categories and codes were identified. Last of all, an inductive approach (Thomas, 2006) was applied in order to provide a proper analysis of the results of the research. Data codes that followed the same pattern in the working data were compiled into related subcategories and then incorporated into main categories. Lastly, there was consensus on the coding scheme illustrated in the results section of this paper.

4. Results

4.1 Descriptive

A total of 19 respondents participated in the interviews, providing valuable insights into the research topic. Detailed descriptive information about the respondents is summarized in **Table 3**, offering an overview of their demographic and professional backgrounds.

Table 3 Demographic Statistics of Participants (n=19)

Category	Subcategory	N (%)
Gender	Male	15 (78.95)
	Female	04 (21.05)
Age	21-30	06 (31.57)
	31-40	11 (57.89)
	41-50	02 (10.54)
	50+	0 (0.0)
Daily hours spent on SM	1-2	02 (10.54)
	2-3	05 (26.31)
	3-4	08 (42.10)
	> 4	04 (21.05)
Education	Matriculation	02 (10.54)
	Bachelor's	10 (52.63)
	Master	07 (36.83)

While most participants invested their time consuming, creating or maintaining social media for three to four hours daily, some invested one to two hours on social media (**Fig. 1**). These data collectively form the

foundation for analyzing the influencing factors and patterns related to the study's objectives, highlighting significant themes and relationships emerging from the responses.

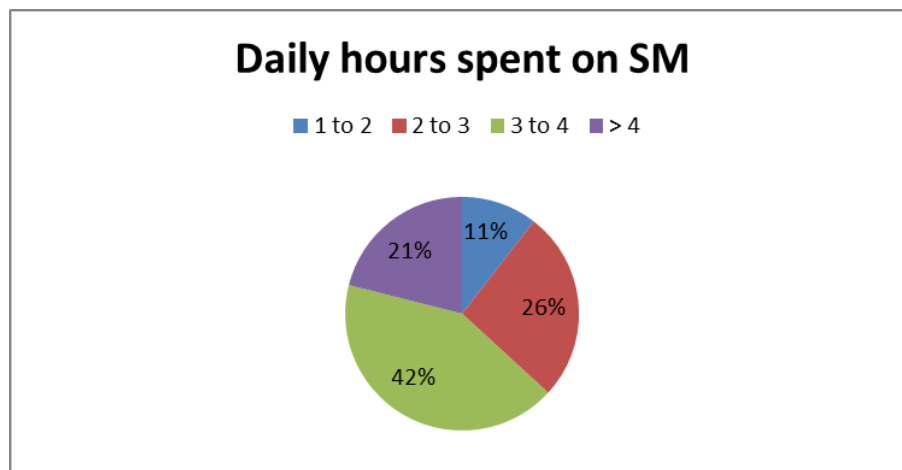


Figure1:Participants Daily Hours spent on Social Media (SM)

4.2 Thematic analysis

This study aimed to explore the influencing factors driving the official social media usage by citizens of Sierra Leone during health emergencies. To delve deeper into this topic, data analysis focused on uncovering key themes that explain the reasons behind citizens' behavior with platforms such as Facebook and the issues they encounter. Questions such as, "What do you think are the reasons for using social media such as Facebook?" and "Do you find any barriers associated with social media usage? If yes, what are they?" were posed to elicit detailed and reflective responses. Through rigorous analysis of the qualitative data, six distinct themes (**Table 4**) emerged, shedding light on the motivations, challenges, and patterns of social media usage among citizens with substantial behavior on these platforms. These themes provide valuable insights into the socio-technical dynamics of social media adoption during health crises, offering a comprehensive understanding of its role in public communication and knowledge sharing. The findings contribute to building a clearer picture of how social media can be optimized to enhance health emergency responses.

Table 4: Emerging themes of Sierra Leone's official social media usage

Sr. #	Themes
1.	Digital Foundations: Navigating Quality and Security in Social Media Usage
2.	Building Bridges: Organizational Backbone of Social Media Engagement
3.	Community Ties: The Social and Cultural Fabric of Digital Behavior
4.	Mindset and Actions: Unpacking the Psychology Behind Social Media Engagement
5.	Connecting the Dots: Infrastructure and Accessibility in the Digital Landscape
6.	Engaging Minds: The Power of Quality and Interactivity in Digital Content

These influencing factors demonstrate the multifaceted nature of social media use, with technological, social, psychological, and infrastructural factors all playing significant roles. Each factor may contribute differently depending on the context of Sierra Leone, particularly during health emergencies. By understanding

these dynamics, the study can better assess how social media can be leveraged to improve government-public interaction and health communication in Sierra Leone. Additionally, this study found numerous influencing cumulative factors surrounding official social media usage by the citizens of Sierra Leone. These constructs are, networking quality, system quality, information quality, service quality, privacy and security, government support, top management support, human expertise and skill, social influence, trust in government, cultural context, peer to peer interaction, motivation, performance expectancy, effort and task complexity, internet penetration, financial autonomy, access to technology, content quality and interactivity.

4.3 Key influencing factors of official Social media

Social media usage is influenced by a variety of factors, which can be grouped into technological, organizational, social and cultural, psychological and behavioral, infrastructure and access, and information and content categories.

4.3.1 Digital Foundations: Navigating Quality and Security in Social Media Usage

The first theme includes networking quality, system quality, information quality, service quality and privacy and security, all of which impact users' behavior with social media platforms (Loukis et al., 2017; Alotaibi et al., 2016). researchers found that individuals do not share information due to confidentiality (Khurshid, 2024). Concerns regarding privacy and security also play a critical role, as users may hesitate to engage due to fears about data protection (Yuan et al., 2023; Sawaneh et al., 2023). Many respondents (P-3, P-5, P15, P-11 and P-7) respond that technological factors playing a key role in usage of social media (**Fig. 2**) as interviewees stated that,

"The internet here is really unreliable, which makes it frustrating during emergencies when you need quick updates. ...Sometimes i try to check the government's facebook page, but it just doesn't load fast enough and that delay? It can cost lives, if the network isn't stable? People just won't trust these platforms for critical updates." (P-3)

"The system itself needs to work smoothly, sometimes, you click something, and it just freezes? That's really annoying, especially when you're in a rush. ... Not everyone here is tech-expert, so complicated designs just scare people away, honestly, if the system works reliably, more people will use it during emergencies." (P-5)

"The quality of information is so important; there's so much misinformation online that it's hard to know what's real or accurate. The government needs to make posts clear, up-to-date, and easy to understand, or people just get confused." (P-15)

"Service quality matters, I've reported false information before, but it feels like no one looks at it or fixes it. Platforms must handle high traffic during emergencies if they crash when we need them the most than what's the point? A quick service is key during crises otherwise; it feels like we're just wasting our time." (P-11)

"Privacy is a big concern; i always worry about how my data is being used. If i comment on a post than who else sees it? Many people won't engage at all because they think their data isn't safe." (P-7)



Figure 2 -Word cloud of Social Media in Sierra Leone-Theme-1

4.3.2 Building Bridges: Organizational Backbone of Social Media Engagement

The second emerging theme is based on organizational factors such as government support, top management backing, and the level of human expertise and digital literacy (Fig. 3) within public agencies also influence the adoption of social media by citizens (Guillamón et al., 2016; Loukis et al., 2017). Respondents have hope from their government that they can establish good and greater usage of official social media, interviewees (P-12, P-1, and P14) comments are,

“Government support is crucial when it comes to using social media for health emergencies. If the government isn’t actively promoting and supporting the use of platforms like Facebook, people will not take it seriously. It’s important for the government to lead by example, using social media not just to inform, but also to engage with the public directly. Without strong government involvement, it’s hard to make social media a trusted and reliable source for health information.” (P-12)

“Top management plays a big role in how social media is used in the health sector. If leaders within the Ministry of Health aren’t fully on board, then it’s hard to get the entire team motivated and engaged in using these platforms.... When management gives clear direction and is visibly involved, it encourages others to follow suit... I’ve seen firsthand how important it is for leaders to show commitment, especially when it comes to tackling health crises.” (P-1)

“The level of digital literacy in the government is a challenge. Many people managing social media lack the technical skills to create engaging and effective content. Without proper scientific updating, the information shared can be misleading. Proper training in digital tools and communication is crucial for ensuring accurate and accessible health information during emergencies.” (P-14)



“When friends or family share health advice or posts from the government, it feels more credible. Peer-to-peer interactions are a key driver of Behavior on social media in Sierra Leone, and they help spread important health information quickly.” (P-9)

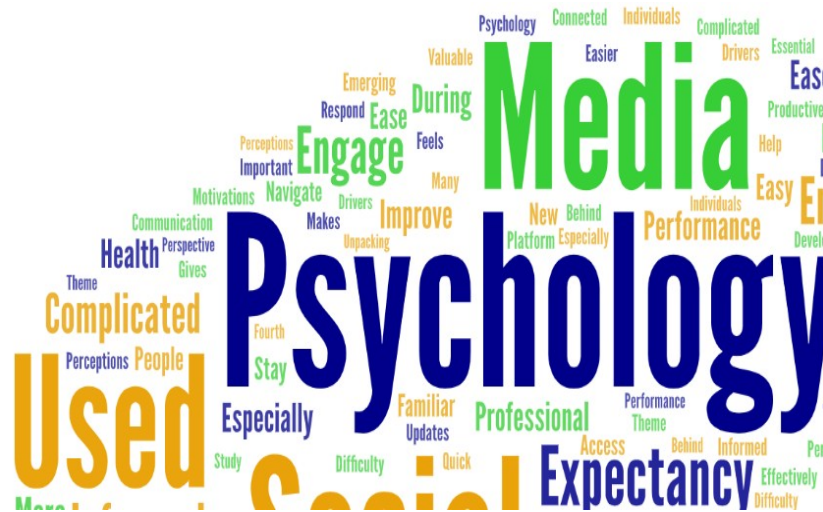


4.3.4 Mindset and Actions: Unpacking the Psychology behind Social Media Engagement

"Social media makes it easier to stay informed and connected. It's valuable for accessing important updates during health emergencies and can also help improve professional skills when used effectively." (P-8)

"Using social media feels productive because it improves communication and gives quick access to reliable health information. It's especially useful for keeping up with new developments and staying professionally informed during emergencies." (P-4)

"Sometimes, using social media is challenging, especially for those who aren't familiar with it. If the platform is easy to navigate, more people would engage ... but when it's complicated, it discourages usage."(P-13)





"Interactive posts, like ones with videos or spaces for feedback, make people feel more involved. When citizens can comment or ask questions, it creates a sense of connection with the government, but ignoring these responses can make people lose interest or trust." (P-10)



84

the multifaceted influences shaping the public's use of official social media platforms during health emergencies in Sierra Leone. These factors emphasize the importance of reliable technology, institutional support, cultural relevance, user motivation, infrastructural access, and engaging content in driving meaningful digital behavior. Each theme reflects the unique challenges and opportunities in utilizing social media for health communication in a resource-constrained environment. Collectively, these factors provide a comprehensive understanding of the barriers and enablers for effective digital transformation, offering valuable insights into optimizing social media strategies to enhance public health outcomes in Sierra Leone.

5. Discussion and Conclusion

This study investigates the role of official social media platforms such as Facebook, in facilitating digital transformation during health emergencies, focusing on Sierra Leone. Our study plays a key role in providing comprehensive qualitative insights into the views and experiences of many experienced citizens of Sierra Leone in usage of official social media in health emergencies. Citizens are faced with numerous challenges regarding social media utilization and they also identify many influencing factors of social media usage during health emergencies. The findings align with six overarching themes, offering critical insights into the influencing factors of social media usage in such contexts. Our findings are in line with previous research as the first theme is *"Digital Foundations: Navigating Quality and Security in Social Media Usage"*, this theme highlights the importance of quality and security in digital platforms as foundational elements for effective social media usage. As Loukis et al. (2017) found that speed, user interface and reliability of internet connections impacting the usage of social media. Participants consistently emphasized that trust in the reliability and security of social media tools was critical during the health emergency. This aligns with broader digital transformation literature, which underscores the necessity of robust quality assurance and cyber-security measures to enhance user confidence. Privacy and security are major concern as citizens concerns about confidentiality, data privacy and platform security, which can impact their willingness to engage (Antheunis et al., 2013; Alshakhs & Alanzi, 2018; Vukušić et al., 2021; Yuan et al., 2023; Sawaneh et al., 2023). Second, theme is *"Building Bridges: Organizational Backbone of Social Media Engagement"* which emphases that in country (Sierra Leone) organizational preparedness and inter-departmental coordination emerged as pivotal for fostering effective behavior through social media. Institutional structures that enable quick decision-making and resource allocation were instrumental in Sierra Leone's digital response. This theme underscores the role of organizational resilience and adaptability in leveraging social media for crisis management. Prior literature also reveals that Government behavior and resources allocated to managing social media platforms play a pivotal role, though healthcare professionals sometimes face legal and disciplinary challenges in its use (Guillamón et al., 2016; Vukušić et al., 2021; Yuan et al., 2023). Additionally, the adoption of social media as a tool is influenced by leadership decisions and digital literacy, scientific expertise, and technical skills within public sector agencies (Loukis et al., 2017; Guerra et al., 2022). Third, emerging theme is *"Community Ties: The Social and Cultural Fabric of Digital Behavior"* reveal that Social and cultural factors played a significant role in shaping how communities engaged with official social media platforms. Localized content and culturally resonant messaging ensured higher levels of trust and participation. These findings underscore the importance of tailoring digital strategies to the unique socio-cultural contexts of target audiences. This finding is similar to early findings as previous

literature found that social networks, peer pressure, and community norms significantly influence individuals' social media use, alongside discussions with friends, family, and colleagues that shape perceptions and behaviors (Alotaibi et al., 2016; Centola, 2013; Alshakhs & Alanzi, 2018; Vukušić et al., 2021; Guerra et al., 2022). Citizens' trust in government social media efforts and the authenticity of shared information also play a vital role, influenced by cultural factors such as power distance, uncertainty avoidance, and collectivism (Yuan et al., 2023; Korda & Itani, 2013; Alotaibi et al., 2016). Fourth, theme of this study is *"Mindset and Actions: Unpacking the Psychology Behind Social Media Engagement"*, this theme reveal psychological factors, such as public perceptions, trust in authorities, and the perceived credibility of information, significantly influenced social media engagement. Participants reported that transparent communication and empathetic messaging fostered higher levels of interaction and compliance with health directives. This reinforces the need for psychological lens in crafting digital communication strategies. Findings are supported by previous literature as the perceived value of social media lies in its ability to enhance job performance, provide incentives, and keep citizens connected, with its usage driven by the belief in positive outcomes like improved communication, professional knowledge, and access to information (Alotaibi et al., 2016; Alshakhs & Alanzi, 2018). However, its adoption is influenced by the ease or difficulty of use and the time and effort required to learn and navigate these platforms effectively (Sawaneh et al., 2023; Alotaibi et al., 2016). Fifth, theme is *"Connecting the Dots: Infrastructure and Accessibility in the Digital Landscape"* which focuses on infrastructure and digital accessibility, and these are critical enablers of social media effectiveness. Limited access to stable internet and digital tools in some regions of Sierra Leone highlighted disparities in user behavior. Addressing these gaps through investments in digital infrastructure is essential for equitable digital transformation during health emergencies. Prior results are also similar to our findings as internet access is critical for enabling widespread social media use, while the financial capacity of municipalities or governments significantly impacts the development and support of social media infrastructure (Guillamón et al., 2016; Sawaneh et al., 2023). Additionally, the availability of devices such as smartphones or computers is essential for facilitating user access to these platforms (Yuan et al., 2023). Sixth and last theme of the study is *"Engaging Minds: The Power of Quality and Interactivity in Digital Content"*, citizens of Sierra Leone give wattage to the quality and interactivity of digital content which were central to sustained user behavior. Participants noted that interactive features, such as live Q&A sessions and visually appealing content, enhanced the public's responsiveness. These findings reaffirm the value of user-centric content design in achieving meaningful behavior of social media users. Previous studies support these arguments as relevant, accurate, and engaging content is essential for maintaining user interest and fostering positive behavior change, though health information shared on social media can pose risks for critically ill patients (Korda & Itani, 2013; Alshakhs & Alanzi, 2018; Yuan et al., 2023). Active user behavior with content significantly enhances the effectiveness of social media in achieving its objectives (Korda & Itani, 2013; Sawaneh et al., 2023).

5.1 Implications for Practice and Policy

The findings of this study have several practical and policy implications. Therefore, citizens of Sierra Leone's views need to be considered when developing or updating guidelines or policy documents on how positively and effectively usage of official social media in Sierra Leone specifically in the time of health

emergency. Moreover, governments and public health institutions must prioritize the development of robust digital policies and invest in digital infrastructure to ensure equitable access. Second, capacity-building initiatives targeting public health officials are crucial for fostering digital competency. Third, strategies to build trust and credibility, such as consistent fact-checking and transparent communication, are essential for effective crisis management. Lastly, integrating community-centric and culturally sensitive approaches into social media strategies can enhance public behavior and the overall impact of health messaging.

5.2 Contribution to Knowledge

This study contributes to the growing body of literature on the influencing factors of digital transformation in health emergencies by providing empirical evidence from a low-resource setting. The findings underscore the multifaceted nature of social media usage and highlight the interplay of technological, social, and cultural factors in shaping its effectiveness.

5.3 Limitation and Future Research Directions

The current study identified a number of features of interest for further research, and there were a few limitations. First, this study aims to gain a greater understanding of citizens' influencing factors of social media usage in Sierra Leone: it is essential to acknowledge that the generalization of the findings of this study to all Africa or other countries could be somewhat prevented; as this research employed the qualitative research method, with the limited number of informants and focusing on an area within Sierra Leone only. Secondly, the age group and education of the interviewees was restricted only to citizens of above twenty years of age and having minimum educational level of matriculation therefore this could hamper the results of this study. Based on the prior study the limited age group can be perceived in view of the findings of Bolton et al. (2013) the millennial generation is more engaged with social media and possesses more motivation to decide travel related decisions online. It is recommended for further studies to include social media Influencer Partnerships, Visual Interactivity, Timing of Posts, Personality Traits, and Demographics of Audience which can provide a broader understanding of the effects of social media usage in decision-making behavior among citizens of Sierra Leone. As Khizar et al. (2024) found that there is need to explore the influence of positive and negative personality traits on individual behavior such as knowledge hiding. The above factors may therefore combine to determine how well social media can be deployed as a tool for communication, marketing and as a means of building communities. Moreover, future research could explore the longitudinal impacts of digital transformation initiatives and investigate comparative case studies in other low-resource contexts. Additionally, examining the role of emerging technologies, such as artificial intelligence and data analytics, in augmenting social media strategies during health emergencies could provide a deeper understanding of their potential. Lastly, this study proposed a comprehensive research model, highlighting a significant gap for future researchers to authenticate the findings and develop a testable framework to validate the influencing factors of social media usage and its impact on individual behaviors, particularly in the African context.

5.4 Conclusion

This study highlights the critical role of well-defined policies and governance structures in ensuring the effective use of official social media during health emergencies. In Sierra Leone, gaps in regulatory frameworks and inconsistent enforcement hinder the dissemination of accurate information. Limited infrastructure and accessibility, particularly in rural areas, further constrain the reach of social media, emphasizing the need for investments in digital tools and connectivity. Digital literacy and capacity building among public health officials are pivotal, as inadequate training limits strategic social media use. Trust in official sources is fundamental, with misinformation and lack of transparency eroding public confidence. Community Behavior, though essential, remains largely unidirectional, underscoring the need for participatory strategies. Finally, cultural and contextual factors, including local languages and traditions, significantly influence the adoption and effectiveness of social media, reinforcing the importance of culturally tailored messaging for enhanced public responsiveness and behavior.

References

- Alotaibi, R., Ramachandran, M., Kor, A. L., & Hosseinian-Far, A. (2016, June). A conceptual model for the factors affecting social media adoption in Saudi government 2.0. In *European Conference on Digital Government* (p. 10). Academic Conferences International Limited.
- Alshaabi, T., Dewhurst, D. R., Minot, J. R., Arnold, M. V., Adams, J. L., Danforth, C. M., & Dodds, P. S. (2021). The growing amplification of social media: Measuring temporal and social contagion dynamics for over 150 languages on Twitter for 2009–2020. *EPJ data science*, 10(1), 15.
- Alshakhs, F., & Alanzi, T. (2018). The evolving role of social media in health-care delivery: measuring the perception of health-care professionals in Eastern Saudi Arabia. *Journal of multidisciplinary healthcare*, 473-479.
- Antheunis, M. L., Bates, K., & Nieboer, T. E. (2013). Patients' and health professionals' use of social media in health care: motives, barriers and expectations. *Patient education and counseling*, 92(3), 426-431.
- Ausat, A. M. A. (2023). The role of social media in shaping public opinion and its influence on economic decisions. *Technology and Society Perspectives (TACIT)*, 1(1), 35-44.
- Bacigalupe, G. (2011). Is there a role for social technologies in collaborative healthcare? *Families, Systems, & Health*, 29(1), 1.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*, 936 Prentice-Hall. Inc., Englewood Cliffs, NJ, US.
- Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., ... & Solnet, D. (2013). Understanding Generation Y and their use of social media: a review and research agenda. *Journal of service management*, 24(3), 245-267.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Centola, D. (2013). Social media and the science of health behavior. *Circulation*, 127(21), 2135-2144.
- Chou, W. Y. S., Hunt, Y. M., Beckjord, E. B., Moser, R. P., & Hesse, B. W. (2009). Social media use in the United States: implications for health communication. *Journal of medical Internet research*, 11(4), e1249.
- Criado, J. I., Rojas-Martín, F., & Gil-García, J. R. (2017). Enacting social media success in local public administrations: An empirical analysis of organizational, institutional, and contextual factors. *International journal of public sector management*, 30(1), 31-47.
- Glaser, B. G., Strauss, A. L., & Strutzel, E. (1968). The discovery of grounded theory; strategies for qualitative research. *Nursing research*, 17(4), 364.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112.
- Guerra, F., Linz, D., Garcia, R., Kommata, V., Kosiuk, J., Chun, J., ... & Duncker, D. (2022). The use of social media for professional purposes by healthcare professionals: the# intEHRAct survey. *EP Europace*, 24(4), 691-696.

- Guillamón, M. D., Ríos, A. M., Gesuele, B., & Metallo, C. (2016). Factors influencing social media use in local governments: The case of Italy and Spain. *Government Information Quarterly*, 33(3), 460-471.
- Holloway, I., & Galvin, K. (2016). *Qualitative research in nursing and healthcare* (4th ed.). John Wiley & Sons.
- Hong, S., Kim, S. H., & Kwon, M. (2022). Determinants of digital innovation in the public sector. *Government Information Quarterly*, 39(4), Article 101723.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
- Kerr, C. B., Taylor, R., & Heard, G. (1998). *Handbook of public health methods*. McGraw Hill.
- Khizar, H. M. U., Khurshid, R., & Al-Waqfi, M. (2024). Unraveling the two decades of Knowledge Hiding scholarship: A systematic review, bibliometric analysis, and literature synthesis. *Journal of Innovation & Knowledge*, 9(4), 100624.
- Khurshid, R. (2024). Unlocking the Secrets: Digging the Mystery of Rationalized Knowledge Hiding in Higher Education Institutions (HEIs). *Journal of Innovative Research in Management Sciences*, 5(1), 36-51.
- Korda, H., & Itani, Z. (2013). Harnessing social media for health promotion and behavior change. *Health promotion practice*, 14(1), 15-23.
- L. O'Sullivan, S. (2013). The empowering potential of social media for key stakeholders in the repatriation process. *Journal of Global Mobility*, 1(3), 264-286.
- Loukis, E., Charalabidis, Y., & Androutsopoulou, A. (2017). Promoting open innovation in the public sector through social media monitoring. *Government Information Quarterly*, 34(1), 99-109.
- Mansoor, M. (2021). An interaction effect of perceived government response on COVID-19 and government agency's use of ICT in building trust among citizens of Pakistan. *Transforming Government: People, Process and Policy*, 15(4), 693-707.
- Mergel, I. (2013a). Social media adoption and resulting tactics in the US federal government. *Government Information Quarterly*, 30(2), 123-130. <https://doi.org/10.1016/j.giq.2012.12.004>.
- Obama, B. (2009). Transparency and open government. Presidential memorandum retrieved on January 2, 2012 from <http://www.whitehouse.gov/the-press-office/Transparency-and-Open-Government/>.
- Oliveira, G. H. M., & Welch, E. W. (2013). Social media use in local government: Linkage of technology, task, and organizational context. *Government Information Quarterly*, 30 (4), 397-405
- Pope, C., Ziebland, S., & Mays, N. (2000). *Qualitative research in health care: Analysing*.
- Sawaneh, I. A., Fan, L., & Sesay, B. (2023). Application of Social Media Tool in Disaster Management in Disaster-Prone Communities in Freetown, Sierra Leone. *Open Journal of Applied Sciences*, 13(6), 858-873.
- Seo, J., Nam, K. & Kim, K. (2012) "The Use of Social Media in Local Government: Analysis and Meanings." *Korean Public Administration Review*, 46(1), 131-155.
- Tarigan, I. M., Harahap, M. A. K., Sari, D. M., Sakinah, R. D., & Ausat, A. M. A. (2023). Understanding Social Media: Benefits of Social Media for Individuals. *Jurnal Pendidikan Tambusai*, 7(1), 2317-2322. <https://jptam.org/index.php/jptam/article/view/5559>
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, 27(2), 237-246.
- Vukušić Rukavina, T., Viskić, J., Machala Poplašen, L., Relić, D., Marelić, M., Jokic, D., & Sedak, K. (2021). Dangers and benefits of social media on e-professionalism of health care professionals: scoping review. *Journal of medical Internet research*, 23(11), e25770.
- Wahyoedi, S., Suherlan, S., Rijal, S., Azzaakiyyah, H. K., & Ausat, A. M. A. (2023). Implementation of Information Technology in Human Resource Management. *Al-Buhuts*, 19(1), 300-318. <https://doi.org/https://doi.org/10.30603/ab.v19i1.3407>
- Weller, S. C., Vickers, B., Bernard, H. R., Blackburn, A. M., Borgatti, S., Gravlee, C. C., & Johnson, J. C. (2018). Open-ended interview questions and saturation. *PloS one*, 13(6), e0198606.
- Yuan, Y. P., Dwivedi, Y. K., Tan, G. W. H., Cham, T. H., Ooi, K. B., Aw, E. C. X., & Currie, W. (2023). Government digital transformation: understanding the role of government social media. *Government Information Quarterly*, 40(1), 101775.

Contributors' notes

Umaru Jabbie

Umaru Jabbie is a Doctoral candidate at the College of Public Administration, Huazhong University of Science and Technology. Umaru Jabbie holds a Bachelor of Arts degree with Honours in Political Science, from Fourah Bay College, University of Sierra Leone, and a Master degree in Public Administration from Sun Yat-Sen University, Guangzhou, China. His current research is in the area of Social Media and Public Health Emergency.

Prof. Shuo She

Prof. She Shuo is a Professor at the School of Public Administration, Huazhong University of Science and Technology. His research interests are in the fields of Emergency Management, Non-traditional Security, and Social Media and Governance.